Interface Fantasy

A Lacanian Cyborg Ontology

André Nusselder

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Een Lacaniaanse Cyborg Ontologie

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INTRODUCTION

> "And is not this dispositif - the frame through which one can glimpse the Other Scene - the elementary dispositif of fantasmatic space from the prehistoric Lascaux paintings to computer-generated Virtual Reality? Is not the *interface* of the computer the last materialization of this frame? What defines the properly "human dimension" is the presence of a screen, a frame, through which we communicate with the "suprasensible" virtual universe to be found nowhere in reality." (Žižek, 1997, 60)

The moment I had the opportunity to execute a philosophical-anthropological research project on the presuppositions and implications of cyberspace, of which the work at hand is the result, the abovementioned passage from Slavoj Žižek's work helped me link the fields of psychoanalysis and Information and Communication Technologies (ICTs). An obvious starting point for analyzing cyberspace from the perspective of Lacanian theory is the issue of imaginary and symbolical identifications, and their role in the construction of 'virtual identities'. But what about the third crucial category posited by Lacan: the real? Here it was Žižek that gave the pointer for taking a closer look at the notion of fantasy, which turned out to bring together the three domains of the imaginary, the symbolic and the real. And above all, I found fantasy to be the central concept of psychoanalysis – at least of the Freudo-Lacanian stream. So what better way for studying identity in an age of information than taking fantasy as the thread for 'thinking through digital technology'? Žižek's hint made for a good begin. But then? How to understand his idea of the 'window' as the crucial element of a human reality that is inevitably connected to the realm of virtuality? And how is virtuality linked to the 'other scene' of the unconscious? Did virtuality exist before its technological incarnations? If it did, how does technological virtuality distinguish itself from other varieties? Grasping psychoanalytic theory itself also took some harsh work (which led me for a year to Paris), for it was not very obvious how fantasy works in Lacan's theory. As it had not been drawn up extensively and systematically, I had to carry out this job first of all, using the dispersed fragments on fantasy in Lacan's oeuvre. Doing these preliminary investigations, I touched upon many basic questions. What is the ontological status of fantasy? How does it differ from the imaginary? How does it relate to pleasure – and do we really have to conceive this pleasure as nothing but a substitute for neurotics who repress their desires? Then there is the question of what Freudo-Lacanian psychoanalysis considers to be real. So the apparently simple hint dropped by Žižek is followed by a whole range of difficult and crucial questions.

However tempting it might be to use Žižek's work as a guide for developing answers to these questions, I thought it more accurate to turn to Lacan's work itself – also the major pillar of Žižek's theory – for a straight development of a Lacanian analysis of cyberspace. This avoids the danger of getting trapped in a 'Žižekian' reading of Lacanian theory, and forces one to approach the question of fantasy and the interface in a more systematical manner – these not being the most rigorous aspects of Žižek's work (so that, at the very least, the present work has no precedent in that it covers the whole field of Lacanian theory relevant for analyzing cyberspace). And didn't Lacan state that it was so much the better when one doesn't understand his writings – since it

gives a chance to explain them (S.20, 35). Developing the theme of the interface gave me the possibility to bring together and explain Lacan's fragmented comments on fantasy, and from there develop a perspective on cyberspace. Since Žižek also 'explains' Lacan in his own manner, I hope by taking a similar approach to avoid the danger of merely repeating Lacan. From a Lacanian perspective, following like a dog a 'master' who teaches you what precisely is the meaning of an utterance or theory is the worst mistake one can make. Therefore 'returning' to the 'original' theory, rearticulating it, is the only sound possibility ('retour à Lacan?').

The subject of my investigations is cyberspace. Since the present work also tries to (re)articulate the 'Lacanian subject' in the age of information by means of contemporary examples and cases, its subject is also an 'updated' explanation of Lacan's theory of subjectivity. Therefore my method is two-edged. My use of Lacanian theory to analyze the 'life on the screen' tries simultaneously to illustrate and articulate the sometimes difficult and abstract notions of Lacanian theory. At the root of my work is the question of what actually is the (ontological) status of the screen or window; therefore the subtitle: 'A Lacanian Cyborg Ontology'. Its central thesis claims that the computer screen functions in cyberspace - as a *psychological* space – as the screen of fantasy. My method is to (re) think Lacanian theory, and to apply it to ICTs, taking into consideration some of the most relevant research on this topic.

In order to differentiate cyberspace from related terms, some comments must be made here. One generally acknowledges that 'new media' have the following three decisive characteristics: they are digital, multimedia and interactive. Nevertheless, new media are not by definition synonymous to Information and Communication Technologies (ICTs), a term that I have used above. Older, non-digital media like the telegraph and the telephone are also ICTs. This shows the contemporary tendency to consider all ICTs to be new media, because these technologies are increasingly being digitalized: mobile phones, for instance, are digital, interactive, and also increasingly multimedia. Furthermore, 'new media' are merely a subcategory of current digitally based media-technologies. Whereas digitization tends to diminish the differences between the terms 'new media' and ICTs, it remains worthwhile to also note their differences.

The technologies that I discuss are digital technologies, bluntly put: computers, as a medium in widely varied fields of human reality: communication, entertainment, science ... Nevertheless, as a philosophical anthropologist interested in the human mind I focus primarily on the mental (and not so much the material) aspect of these technologies, so that the actual topic of my investigation is cyberspace: the *mental space of the conceptualization or representation* of the codified objects (data-objects) of the computer. The digital revolution that forms the basis of the worldview I analyze, makes, as it is often said, the world into a huge database: a world of computerized codified objects only accessible via all sorts of interfaces. This situation implies that, from a 'philosophical' perspective, there are three fundamental domains. The Matrix as the 'noumenal' dimension of codified objects consisting of zeros and ones (the database), cyberspace as the 'phenomenal' mental space of the conceptualization or representation of code-objects, and the interface as their crucial medium. The interface is the 'gate' leading man into cyberspace, connecting him to the Matrix while simultaneously – because of its *particular* formations – still separating him from it as a whole. Since the world as a database (the Matrix) cannot appear to us (cyberspace)

without media that open it up (interface), the interface, I claim, has a similar status to that of fantasy in Lacanian theory. For Lacan considers fantasy (at least in my 'explanation') to also be an inevitable medium for 'interfacing' the inaccessible real and the world of imaginary depictions and symbolical representations which man mentally lives in. The theoretical turn (twist, distortion?) that I make here consists of course in going from a 'psychological' theory concerning the intermediate screen to its current digital formations. But as cyberspace is to such a large extent a 'psychological space', I consider this transformation worthwhile and hope to show that it is valid.

A new media object 'on the screen' does not have a one-to-one relationship to the codified object of zeros and ones in the computer databases. The applications' algorithms that digitize an object into computer-codes determine how the object is codified, and also how it 're-appears' on the screen. Different applications can stage the code-object differently in our reality. The appearance of the object hence also depends on technological possibilities and limitations. Whereas 'old media' usually only have one interface for showing the object (a film screen opens only one format of a film, while a computer screen can set up several formats for a digital film; a traditional text has to be read in the form of, for instance, a book, while a hypertext has different possible appearances), 'new media' often have several interfaces. The increasingly problematical status of the notion of identity in an age of digital technologies coheres to this issue.

When there is no strict identity of code-object and its format(ion), no full correspondence, or analogy, the relationship between user and sign (on the screen) goes beyond interpretation and hermeneutics. The technological formation of the object introduces into this ideal relationship – in which the sign supposedly expresses an ideal, abstract concept – a 'distorting' (disturbing) element. Therefore the relation of user and sign is also 'cybernetic': the object's form also depends on the technological media that stage it for us. When viewed in the context of Lacan's ideas on the codification of objects in memory, and their subsequent recollection, what catches the eye is Lacan's denial that this process is a matter of clear language or pure codes. As he shows in his discussion with cybernetic theory, such a presumed clear language of zeros and ones is always 'distorted' by imaginary elements that belong to the human mind itself. Lacan's 'first model' of fantasy, in which imaginary elements mediate the codified object and its representations, already evinces a likeness to the model of the new media object. I therefore think that, from a Freudo-Lacanian psychoanalytical point of view, this fantasmatic mediation of the code-object is what the computer interface is all about. Just as Lacan considers the formation of an object to be largely determined by the (fantasmatic) possibilities and limitations of the human mind, technological interfaces determine the appearance of an object. Therefore the 'human mind' is working in technologies. Just like early man painted his other Self on the walls of his cave, and thereby opened up and created his world, modern man 'paints' or designs his virtual Self on or with the interfaces of computer technologies.

Lining up technologies with language does not necessarily mean envisaging them as merely 'linguistic' or semiotic phenomena codifying objects in 'new languages'. Neither does my position look at them as laying a substitute layer of new images over 'real reality'. The 'deepest' aspect of digital technologies – where they touch most upon reality 'as we know it' – is in its combination of symbolic (codes, signs …), imaginary (audio-visuals) and real aspects (whatever this may be: 'affects', pulses … ?). The avatar is the model for illustrating this process. An avatar is a virtual personae that we assume

when we pick up a self-image and use it to stride through a virtual world on the Internet, or when we 'write' our identity in a text based community. By extension it is the 'face' of ourselves that we present to the other in all sort of computer mediated communication. Even e-mail messages and personal websites might thus generate our avatars. The avatar illustrates the three orders that Lacan uses to analyze human reality: the imaginary, the symbolic and the real. For the avatar consists both of self-images, and symbolic elements of self-representation. We can have, for example, 'virtual' (computer mediated) meetings, for business, entertaining or therapeutical purposes, in a Virtual Reality environment or in a virtual environment which I can enter via my PC. My self-representation in such virtual spaces consists of imaginary and symbolic elements: there is an image of my face or of my entire body, and I use spoken language and other codes in order to represent myself (properly). The question then is, of course, whether this virtual Self is still related to the real Self. And here we touch upon the crucial notion of the real, which I consider extensively in this work. My thesis considers the avatar to be related to the real, just as – and here I follow (my 'explanation' of) Lacan – the screen or fantasy formation is related to the real, albeit in an ambiguous and very complex manner.

So it may be true that we create our virtual personae in order to get a pleasant image of ourselves; it shows the order of virtual images and codes as led by affectivity. But we may question whether this is merely a desire for simple pleasure, just as Freudo-Lacanian psychoanalysis questions whether the relationship between fantasy formations and the real is merely one of substitute/stand-in pleasure. We might forget the defensive function of the screen, and too easily take the real as a given within (easy) reach. Lacan relates the real to the impossible and thus places psychoanalysis in a tradition that locates truth in the realm of tragedy. Lacan even claims that psychoanalysis becomes impossible in societies that have lost a sense of tragedy – which might be confirmed by Baudrillard's descriptions of a society of hyper ('happy') realities: in it, the unconscious 'evaporates'.

Considering the computer interface a fantasmatic window for representing the object may bring about other perspectives in Lacanian thought as well, which currently remains focused on language as man's primary universe. Analyzing the interface as a fantasy-screen may bring in technology as a force which possibly could have similar effects on the human universe. Lacan's theoretical development in any case shows an interesting parallel to developments in technological culture, such as the shift of focus from language as an autonomous structure to fantasy as the elementary medium. This shift seems well-suited to grasp new media's pretense of 'showing' the object with several, different interfaces. Lacan's theory passes beyond the ideas of a notion of identity (the paternal metaphor) determining paternalistic society. With the focus on fantasy there is a much greater understanding of difference, without Lacan being a postmodernist. For he does not let go of the principle of a formal, 'rationalistic' subject – without claiming that it is a 'substance'. Thus he establishes a theory of the subject with fantasy as its pivotal notion. This subject cannot avoid 'actualizing' itself continuously in new formations, or in/on new technological interfaces. This subject-theory, I claim, can offer an alternative to the currents of modernism (with its claims of 'identity') and postmodernism (with its condemnation of 'identity').

List of Abbreviations

E. Lacan, J. *Écrits* (Paris: Seuil, 1966).

Ec. Lacan, J. *Écrits: A Selection*. (London: Tavistock, 1977).

S.1 Lacan, J. *The Seminar of Jacques Lacan Book 1. Freud's Papers on Technique* (Cambridge: Cambridge University Press, 1988).

S.2 Lacan, J. *The Seminar of Jacques Lacan Book 2. The Ego in Freud's Theory and in the Technique of Psychoanalysis 1954-1955* (Cambridge: University of Cambridge Press 1988).

S.4. Lacan, J. *Le séminaire de Jacques Lacan Livre4, La relation d'objet* (Paris: Seuil, 1994).

S.5 Lacan, J. *Le séminaire de Jacques Lacan Livre 5, Les formations de l'inconscient* (Paris: Seuil, 1998).

S.6 Lacan, J. *Le désir et son interpretation. Séminaire 1958-1959.* (Internal publication of the Association freudienne internationale).

S.7 Lacan, J. *The Seminar Of Jacques Lacan Book 7, The Ethics of Psychoanalysis* (New York/London: Norton & Company, 1992).

S.11 Lacan, J. *The Seminar of Jacques Lacan Book 11. The Four Fundamental Concepts of Psychoanalysis* (New York/London: Norton & Company, 1998).

S.14 Lacan, J. *La logique du fantasme. Séminaire 1966-1967* .

S.17 Lacan, J. *Le séminaire de Jacques Lacan Livre 17, L'envers de la psychanalyse* (Paris: Seuil, 1991).

S.20 Lacan. J. *The Seminar of Jacques Lacan Book 20. On Feminine Sexuality, the Limits of Love and Knowledge 1972-1973 (Encore*) (New York/London: Norton & Company, 1999).

S.23 Lacan. J. *Le sinthome. Séminaire 1975-1976.*

S.E. Freud. S. *The Standard Edition of the Complete Psychological Works of Sigmund Freud,* Edited by James Strachey et al. (Oxford: Hogarth Press and the Institute of Psychoanalysis, 24 volumes, 1953-1974).

CPR Kant, I. *Critique of Pure Reason* (Indianapolis/Cambridge: Hacket Publishing Company, 1996).

CHAPTER ONE. TECHNOLOGY AND DESIRE

Introduction

This chapter will discuss technology from the perspective of man's primordial desire for real presence. Hence from the very beginning I approach technology from the perspective of what I will call the technological Eros. In order to situate the notion of the desire for real presence I will turn to classical metaphysical systems which maintain that the real is simply something that is already there, only needing to be discovered by man, and whose offspring can still be found all around us in the present world. This is the structure of nostalgia, which tends to neglect the process of the construction of the object that we long for. In order to 'deconstruct' nostalgic notions of desire also permeating technology, I will use psychoanalysis as it focuses exactly on this process of (psychical) construction, thereby hopefully avoiding the pitfall of thinking naively about representation. I think psychoanalysis in this way can be especially helpful in the age of information and communication technologies. For the crucial aspect of this age is that the encoded objects do not have a firm relationship with the objects as they appear on the computer screen. There is no intrinsic motive for the relationship between bits and their form. I will try to show that fantasy-desire plays an important role in this interfacing with bits. To do this I will give a general introduction to Lacanian psychoanalysis' conception of reality and desire, and focus on fantasy as what 'interfaces' them. This introduction should clarify the fundamental role of mediation in our striving for presence. For the digital era requires a paradigm of mediation, instead of a paradigm of analogous reflection to do justice to the influence of new media.

1. Technology: the desire for presence

1.1. What is technology?

How does technology affect human existence? What are its implications for our consciousness? In order to shed some light on these fundamental questions I will first of all try to define what technology is. Not a simple task, for there is hardly any consensus on the meaning of the term technology. However, there is a generally accepted – although not completely homogeneous – understanding of what technology refers to.[1] First of all there is the 'commonsense' view that identifies technology with particular *artifacts*, such as tools, machines, computers et cetera. The second conception stresses the idea that the fundamental issue of technology is not the objects that are made but the *process* of making and using those objects. It focuses on the invention, design and public use of technology. A third conception views technology as a kind of *knowledge*, that consists of skills, rules, laws and theories that teach us how to achieve the technological artifact we desire. The fourth conception of technology relates it to the aims, intentions, desires and choices of man as the 'user' of technology: technology as *volition*. It is on this most difficult and 'hidden' aspect of technology that I will focus.

[1] For this categorization, see: Mitcham (1980 and 1994). As Carl Mitcham is one of the most important historians of the philosophy of technology, I will frequently refer to his work.

> "The most unformulated, the most difficult to formulate, and yet the most commonly assumed viewpoint on technology is that it is grounded in some human act of the will" (Mitcham, 1980, 316).

This viewpoint holds that the control of the process of producing technological artifacts does not fully depend on the exact knowledge of the systematic functioning of that process.

Is man autonomous in his use of technology, or is rather technology an autonomous mover in our world? The substantialist view of technology propagated by its first generation of twentieth century philosophers - Heidegger, Mumford, Ellul, and present-day peers such as Neil Postman and Don Ihde, holds that technology has a transformative effect on our perception and awareness, on politics and society and on our culture as a whole. Technology hence profoundly interferes with subjectivity: it is a strong 'mediator' that transforms our perception of being. This vision strongly opposes the commonsense view, yet not very common among theoreticians, that technology is a neutral instrument that we can use for all sorts of different goals. This does not mean that the major current in the philosophy of technology is the substantialist one, quite the opposite. New, mostly American philosophers of technology, support the philosophy that technology is a (social) construction.

The British thinkers Hughes and Pinch, in cooperation with their Dutch colleague Bijker, laid the foundations of social constructivist theories: *The Social Construction of Technological Systems* (1987). Social constructivism strongly opposes the view, which predominantly accompanies the substantialist vision, of a technology that determines history and society. Such a technological determinism poses technology as a system with inevitable and irresistible social (or other) effects. In what commentators refer to as 'hard determinism' (cf. Levinson, 1997, 3-4), technology is an autonomous force that shapes man and the world, and eliminates human autonomy. The 'soft' version of technological determinism also holds that technology has a determining influence, but it is *not the only* determining factor. The shape of society, culture and 'subjectivity' is the result of several forces (economical, military, social …) of which technology is only one. Although this emphasis on multicausality involves an 'overdetermination' of an effect by multiple causes, the 'soft' version of technological determinism still thinks in a scheme of cause and effect. Social constructivism tries to break out of this scheme. Although there are different approaches in social constructivism, a common feature is the view of technological development as a contingent process that involves heterogeneous factors. Different actors or relevant social groups play a decisive role in technological change. They are engaged in all sorts of strategies in order to shape technology to their own plans. The directions and goals of technologies therefore depend on the choices and influences of the different social groups that carry out their design and implementation. By stressing the importance of the choices of actors and groups, and by its empirical approach, social constructivism tries to distance itself from the 'monolithic' approach of technological determinism, and hence is much more in accord with the current distaste for 'grand narratives'.

This brief description of the different currents in the philosophy of technology is important for our question regarding the role of man in the 'will to achieve transcendence' (Mitcham) by means of technology. The fourth conception of technology as volition may renew our 'Freudian obligation' of becoming aware of the involvement of our unconscious desires in technological enterprises: "Wo Es war, soll Ich werden".

1.2. Technological desire for presence

> "[I]n a new variant on the story of Narcissus, people are able to fall in love with the artificial worlds that they have created or that have been built for them by others. People are able to see themselves in the computer. The machine can seem a second self" (Turkle, 1995, 30).

Cyberspace is the 'electronic space' that came into existence from the sixties of the 20th century through a joining together of various computer networks, and became a broad social phenomenon from the eighties and beginning of the nineties. "Digital technologies became the infrastructure of cyberspace. The new space served as the locus of communication, sociability, organization, and transaction, as well as a new market for the exchange of information and knowledge" (Lévy, 2001, 14).

In line with many present day thinkers on information technologies who consider cyberspace as a new land for the fulfillment of our wildest fantasies, Michael Heim posits the old Platonic Eros as the foundation of our actions in cyberspace (Heim, 1993, 88). It is the desire to (re) find our Other Half - that what we are missing, what lies beyond the limit of our possibilities - that motivates man's use of technology. This is the age-old desire for presence, of which Virtual Reality technologies are the latest 'material' manifestations. As Vivian Sobchak expresses in her influential essay on the phenomenology of electronic presence:

> "In sum, just as the photograph did in the last century, so in this one, cinematic and electronic screens differently demand and shape our "presence" to the world and our representation in it" (Sobchak, 1994, 84).

> The "goal of virtual reality, presence, is part of an ancient desire to use media for transportation and experience "physical transcendence" over the space we live in and to experience an "essential copy" of some distant place, a past experience, or the experience of another person" (Biocca, 1997, § 5.1.2.).

Information technologies thus seem to design or create a second, parallel world. Philosophically speaking, this is the technological design of being, of presence. The issue is, however, that many (utopist or idealistic) perspectives consider this parallel world from a Platonic perspective: as a *substantial* world that exists independently from the human subject. Cyberspace than is an informational space wherein the data are *already present*, and just wait for us to reveal them. This makes cyberspace into a realm of immaterial data that exist independently from the computers and networks, independent from the hardware, the software, and the human wetware. Just like Plato thought that the content of concepts is neutral with regards to the form in which they are represented: concepts (Ideas) exist independently from the knowledge, experience or imagination of the human user. And in these uncritical perspectives, cyberspace also reproduces the Platonic dualism of body and mind. For they conceive the cybernaut as an immaterial mind that dwells unhindered by its bodily limitations through the data flows of cyberspace. Information and communication technologies seduce or lure the user into thinking that there is a steady contact point between the representation and the things they represent. They make us believe that they represent the real 'as it really is'.

In semiotic terms this 'metaphysical' paradigm implies that there is something like a immediate relationship between user and an abstract or medium-independent sign system, that puts the user in a direct relationship with the content or concepts that the sign system expresses (cf. Simons, 2002, 148). From a Lacanian perspective one could call this the dual relationship between user and content. One must note that psychoanalysis recognizes the seduction of such a belief in transparency. And one must also recognize that digital media especially have the power and the aim of achieving such an immediacy (cf. Bolter/Grusin, 1999, 22), Nevertheless, what is at stake in the era of digital media is the exact analysis of the role of the medium, the form, in the relationship between user and content. And thus to replace the dual paradigm by a triadic relation between user, sign and medium. This is what I will try to do via the theory of Lacanian psychoanalysis, wherein fantasy is the primal (mental) form or medium between subject and object.

1.3. An 'erotic core' of technology?

"technology's essence is nothing technological." (Heidegger, 1997, 4).

The description of what is technology is not neutral, already being somewhat determined by the methodology, background and portrayal of man one has. It is therefore very hard to maintain a strict distinction between the philosophy of technology and philosophical anthropology.

There seems to be some reason to assume a form of essentialism in statements that consider an intimate relationship between man and technology. One can mention Heidegger here, who discovered an intimacy between technology and language, and showed that it is this intimate infiltration of technology in the human world that gives it its most awesome power. “But the truth of the matter might well be that the language machine takes language into its management and thus masters the essence of the human being” (Heidegger, cited in Heim, 1993, 61).[2] Like Heidegger, Ivan Ilich considers computers and language technologies to be an enormous threat. If they deprive man of his natural language, they strip off his essence (cf. Achterhuis, 1997, 11). For Heidegger and Ilich language is the essence of the human being. Lacan makes a similar statement about desire being the essence of reality. In the domain of philosophical anthropology it seems that from a Lacanian point of view the analysis of the ‘technological Eros’ touches on the essence of technology.[3]

Carl Mitcham uses Paul Ricoeur's distinction between three levels of the human will to explain the technological Eros. “Technology as volition can thus be analyzed in at least these three volitional senses, as technological desire, as technical motivation or movement, and as consent to technology. Such an analysis could begin to elucidate the

[2] Martin Heidegger, 'Hebel - Friend of the House' (1957), in D.E. Christensen (ed.), *Contemporary German Philosophy* (University Park: Pennsylvania State University Press, 1983), 89-101.

[3] Lacan’s theory does have a certain inclination towards essentialism, in that it grounds certain systems of representation in desire (art) or a negation thereof (science). Compare Lacan’s text ‘La science et la vérité’ (E., 855-877) where he analyses the modern subject of science as a subject that forecloses the object-cause of desire and thereby the desiring subject itself. In 'The Age of the World Picture' Heidegger makes a similar analysis (Heidegger, 1997, 115-154): the modern subjectivity that emerges in ‘the age of the imaging of the world’ determines truth as certainty (scientific objectivity).

dialectic of "technological eros" (Jakob Hommes 1955)" (Mitcham, 1994, 255).[4] The relationship between technology and Eros is only one of the four 'classical' ways to understand what technology is. Therefore, my investigation of the 'technological Eros' does not cover the 'whole' domain of technology, but is restricted to this aspect that is most intimate to ourselves and therefore the hardest to grasp. This statement should also help to avoid the trap of an *imbalanced* essentialism.

1.4. Technological media: beyond the conscious intentions of man

In philosophical anthropological studies one considers technology in relation to the position of man in and towards nature. The 'classical' position holds that man is a defective animal that needs technology in order to survive. As biological deficiencies and shortcomings characterize man at the biological plane, technology is a means to substitute for these shortcomings. The essence of technology is then *its ability to compensate or substitute for biological or natural needs*.[5] This dominant conception of technology places its meaning completely on the natural level. Technology is a means to transform or manipulate nature in order to fulfill human needs. It is a form of teleological or purposeful action that satisfies utilitarian or practical functions and goals. Or, as a training institute summarizes the (fourth) conception of technology, technology "begins with a need and ends with a solution".[6]

In the conceptualization of the computer as such an instrument, 'usability' is the central term: the question is which interface-design is most effective in helping the user to perform his job. However, the computer functions increasingly as a medium. This was initiated with the design of the graphical user interface - designed in the 1960's at Xerox PARC. Together with Douglas Engelbart's invention of the mouse, the GUI was successfully introduced by Apple in the nineteen eighties on the Macintosh computer. The graphical user interface gave, for the first time, a spatial dimension to data-objects, so that the computer could appear as an *environment* that the user can travel through. With the boom of the Internet in the nineteen nineties this notion of the computer as a medium became very influential. As this conceptualization of the computer as a medium closely connects to the representation of data-objects on all sorts of displays, it may be a useful metaphor for my approach of cyberspace. Although we must not overlook the fact that cyberspace probably is a combination of several, different metaphors - both on the level of the producer and that of the user; in design and in reception - the metaphor of the medium has a particular interest when one focuses on the 'volitional' aspect wherein the computer - unconsciously - creates a world.

The crucial difference between the computer as an instrument or as a medium holds for information technologies in general.[7] They bring us to the important question whether those technologies are an *extension* of man, or a *medium* in which he constructs new 'faces' of himself. We must ask the question whether technology is something that

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[4] Jakob Hommes, *Der technische Eros: Das Wesen der materialistischen Geschichtsauffassung* (Freiburg: Herder, 1955).

[5] Arnold Gehlen represents such a view in his *Man in the Age of Technology* (New York: Columbia University Press, 1980).

[6] http://atschool.eduweb.co.uk/trinity/watisec.html

[7] Technologies often start as an instrument, and later on they frequently become a medium as well. Computer technologies often make it to the general public when they are applicable to communication. This is the transition from information technologies (IT) to information- and communication technologies (ICT). From a psychoanalytical perspective computer technologies are principally interesting as a medium (ICT).

(instrumentally) helps us to exist in this world, or (substantially) creates a world: is it merely a *means* or not rather a *medium*? Do we only use technology in order to safeguard our biological survival or do we also apply it in order to transform the world - and ourselves -according to our desires? In order to stress my volitional approach to technology, I mention here (again) that several philosophers of technology make notice of this idea of technology as led by a will to transformation. The existentialist analysis of Ortega Y Gasset ground technology in a willed self-realization. Hannah Arendt considers modern technology as an answer to old cultural dreams, as a realization of the desire to leave the earth and its conditions (cf. Mitcham, 1980, 243-249). For the French philosopher Jean Brun "technology grows out of Western ontological aspiration to merge subject and object" (Mitcham, 1994, 249). Also Heidegger - both in *Being and Time* (1927)[8] and in his later important discussion of this subject in "The Question concerning Technology" (1949-1950) - rejects the common idea of technology as pure means: technology is, instead, a revealing or disclosing of what is.

From the perspective of the technological Eros, technology involves more then the rational use of means. And technology as volition is more than the 'conscious' intentions of individuals and social groups. The question whether the human 'will' is primarily a conscious affair or not returns in the discussion on technology. For it is the fourth conception of technology (according to the categorization that I use, see § 1.1.) as a kind of willing or volition that is subject to different interpretations. A recent encyclopedic article on the philosophy of technology – that recommends the value of a social constructivist conception of technology - replaces the volitional conception of technology with the idea of technology as a social process.[9] Then the conscious intentions of social groups that produce technological artifacts determine the outcome of the process. Unconscious aspects of the human 'will' are left out of consideration. It thus emphasizes the determination of technology by the rational aims, choices, and 'desires' of social groups

A discussion of this influential current called social constructivism can elucidate the technological Eros. Social constructivism received important criticism in an influential article by Langdon Winner.[10] His critique concerns its lack of consideration for the deeper structures that govern technology. For social constructivism does not pay attention to the power struggles and the political dimensions that underlie the so-called construction of technology by social groups. It also ignores the influence of the broader cultural context on the shaping of technology. Philosophers of technology such as Marx, Mumford, Heidegger and Ellul, who reflected on the broader patterns of technology, can thus too easily be pushed out as old fashioned. To the list of elements that social constructivism disregards according to Winner (beyond the ones I have mentioned: the social consequences of technical choice, the social groups that are not excluded in the construction of technology, and the evaluation of technology) I would add the element of non-reflexive intentions: desire. For social constructivism considers the social construction of technology as the outcome of rational choices and strategies. A simple example might show the limitations of this approach. Was the development of the flying

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[8] "Although Heidegger does not use the term "volition" and "will" frequently, *Being and Time* presents technology as object, knowledge, and activity as fundamentally related to volition" (Mitcham, 1994, 256).

[9] Peter Kroes, 'Philosophy of Technology', in *Routledge Encyclopedia of Philosophy* (London: Routledge, 1998). http://duke.usask.ca/~wjb289/big/Kroes_Philosophy_of_Technology.PDF

[10] Winner uses social constructivism as an umbrella term for the body of ideas of a variety of thinkers as Steve Woolgar, Trevor Pinch, Wiebe Bijker and Bruno Latour.

machine solely the result of the rational intentions of the actors and groups that were involved in its production? What about the pioneers of aviation who willingly took the risk of flying the first flying machines, with the chance of crashing right away. Was that simply a calculated risk? Probably not. It was also an (unreflected) act, for they did not know what the outcome was going to be. Social constructivism seems to reduce the reason that permeates technology to its instrumental version. It cannot understand technology as a construct of a 'crazy animal'. Furthermore, when it makes the role of social actors in the construction of technology absolute it seems to tumble into the same trap that it wanted to avoid in the first place. This is the trap of determinism, for it considers everything to be the result of social interaction. It therefore neglects typically human factors, like the meaning that people give to things and the (sometimes strange) reasons and motives they have for performing certain actions.

Considering technology from the perspective of desire – the term that I will use from now on in order to specify one domain of volition, namely the Lacanian Eros – apparently entails from the beginning a non-instrumental consideration of technology: technologies offer media that we (unconsciously) 'live in'. Instrumentality strives for an exact knowledge by man of his intentions during the technological process, while the approach from desire points to the deficient transparency of those intentions. Man's intentions are partly unconscious; which is what psychoanalysis takes a close look at. This limitation of self-consciousness is probably not absent with regards to man's 'use' of technology (the philosopher of technology Ivan Ilich speaks paradoxically of "unintended intentions"; Mitcham, 1994, 183).

> "Tools are made to accomplish our purposes, and in this sense they represent desires and intentions. We make our tools and our tools make us: by taking up particular tools we accede to desires and we manifest intentions" (Mitchell, 1994, 59).

1.5. Technologies as media for simulating the real and regaining enjoyment

> "Simulation is the ecstasy of the real" (Baudrillard, 1988, 187).

One often considers technology as a way to cancel the (sense of) loss. Media theorist Peter Weibel therefore describes all technology as psycho-technology:

> "Technology helps to fill, to bridge, to overcome the insufficiency emerging from absence. Every form of technology is teletechnology and serves to overcome spatial and temporal distance. However, this victory over distance and time is only a phenomenological aspect of the (tele-) media. The real effect of the media lies in overcoming the mental disturbances (fears, control mechanisms, castration complexes, etc.) caused by distance and time, by all forms of absence, leave, separation, disappearance, interruption, withdrawal or loss. By overcoming or shutting off the negative horizon of absence, the technical media become technologies of care and presence. By visualizing the absent, making it symbolically present, the media also transform the damaging consequences of absence into pleasant ones" (Weibel, 1992, 75).

With (psycho) technologies we try to transgress, confront, shift or reposition our limit(ation)s. Within a Lacanian context where the real is exactly what withdraws itself from our grasp, and therefore poses a limit to ourselves (the real core inside and outside of ourselves), the real is what we cannot confront or reach except through a medium. As Peter Weibel states, technologies are indeed media to bridge the gap that separates us from the real: teletechnologies that seek to overcome distances, immersive technologies that seek to close the distinction between the virtual and the real environment.[11] The purpose of a technological media is hence to obfuscate itself as a medium and to claim a real presence. And to provide enjoyment in this presentation of things on opaque screens that seem to be reality itself. According to Bolter and Grusin these are "the twin preoccupations of contemporary media: the transparent presentation of the real and the enjoyment of the opacity of media themselves" (Bolter/Grusin, 2000, 21).

The dynamic of erotic desire has as its goal a realization of fantasy. Then fantasy, which normally is a vital support of desire, becomes an opaque screen turning the reality of the desiring subject into a lure. For these are the two basic forms of the object of desire:

> "But the object of desire, in the usual sense, is either a fantasy that is in reality the *support* of desire, or a lure" (S.11, 186).

We can analyze, according to Lacan, this lure by referring to Freud's analysis of love, and find out that it has a fundamentally narcissistic structure. Fantasy can become so pressing that we take its images - that we love so much as the perfect reflection of ourselves - for reality itself. In media-studies one tends to call this striving for something that seems to be more real than reality itself, a desire for a 'fully realized world' on the screen.

Two examples, one concerning mechanical technology and one concerning digital technologies, illustrate this thesis that technology seeks to replace the real by its 'simulated version'. First of all the experience of speed. In its driving version, the technological vehicle that can provide us with this experience, the car, is a frame upon reality that allows our experience of reality to change. Thus it allows for a hyperrealistic perspective upon reality: as in the experience of speed, but also in the new world order that came along with car use. So the car was a new vehicle for the distanciation of the here and now. And as Kaufmann and Smarr show in their *Supercomputing and the Transformation of Science* (1993) supercomputers radicalize this drive in the digital domain: they can simulate things that no man has ever seen yet – molecules or the origin of the universe – or visualize places that are impossible for man to reach, and hence almost fully detach our outlook from our physical position.

Technology has a peculiar relation to the real as the impossible. On the one side it virtualizes – via the screen (of fantasy) – our subordination to our immediate environment (teletechnologies). On the other hand it tries to restore – on the screen – a sort of virtual immediacy: think for example of the real time telecommunications. Technology seems to be guided by the ideal of eliminating our immersion in the 'natural' environment ('natural presence'), and to restore an immersion in a virtual

[11] Hence we may consider the notion of a *desire for simulation*. "Simulation is no longer that of a territory, a referential being or a substance. It is the generations by models of a real without an origin or reality: a hyperreal" (Baudrillard, 1988, 166).

environment ('virtual presence'). As human beings we seem to be condemned (or blessed) to exceed the limits of our 'natural' position in the world and hence we try to rediscover the paradisiacal enjoyment of immediacy (which was never a reality) 'stolen' from us.

So, to formulate a Lacanian perspective in Baudrilardian words, we say that there is a desire for an ecstasy of the real.[12]

2. Philosophy: the metaphysics of presence

2.1. Nostalgia: an analogue desire

We all know the phenomenon of nostalgia. We can be full of nostalgia for times gone by. Or we can be nostalgic for a space that has a particular interest to us. However, usually the object of nostalgia has a specific location in space *and* time. It is to a certain environment at a particular time, or to a long gone period of our life at a specific place, that our thoughts return. In those recurring thoughts we feel that we return home. Or, at least we feel *as if* we are returning home to the environment in which our desires were fulfilled. So, in our imagination there seems to be a parallel world: we experience an imaginary world parallel to our desires. The major question then concerns, of course, the status of this world: is it true or merely an illusion? Is our representation of the events that occurred in it a correct reflection of the 'original' events, or is it rather an echo of our own desire for moments of fulfillment? In short, was there ever such a 'home'?

The phenomenon of nostalgia shows that the *psychic experience* of a 'home' is a fact. There is at least the suggestion of a *relationship of similarity* between the psychic object and the 'real' object, and because of this relationship one could call this nostalgia an analogous desire. For what defines analogy in its broadest sense is the suggestion or recognition of a relationship of similarity. It is quite obvious that in nostalgia the situation in the past to which we refer is long gone. The point at hand, however, concerns the actuality of an event at the level of *representation*. Is my representation of the event in accordance with the 'original' event; is there a line of continuity between them? Is the world of psychical reality analogue to 'real' reality? Does it represent what the original situation signifies, by establishing a relationship of parallel degree? If it does so, there is a resemblance, imitation, or even unity between the element of representation and the 'original' event. In nostalgia there seems to be such a parallelism between the subject and the object of representation.

2.2. Platonism

Taking this issue into its philosophical dimension, we note that ever since its debute in Western history, philosophical speculation considers representations as analogous to the object represented. In contrast to the (indirect) knowledge that we collect in all sorts of discourses, immediate 'sight' is analogous (van den Boom, 1991, 185). The Platonic origin of this notion of 'view' or 'sight' (*theoria*), asserts that the object of knowledge resembles the object of view in its true form. Subject and object are then immediately, without mediation, together. This is the paradigm of the direct vision, intuition and sight. Knowledge is thus a depiction or representation of 'true' reality and consists of

[12] Considering Baudrillard's work as a description of a realized fantasy in this manner, I agree with Scott Durham's remark that "Baudrillard's work may be most usefully read as one articulation of a certain *phantasy* of postmodernity as a totalitarian operational system" (Durham, 1993, 161).

adequate representations, ideas or images on the ‘mental screen’. The metaphysical assumption that there is an original plenitude that guarantees the meaning of representations is the foundation_of true knowledge (Hayles, 1999, 285). One often refers to this Platonic basis of Occidental thought as a ‘metaphysics of presence’. Jacques Derrida, who continues the Heideggerian critique on this metaphysics, allies the original presence with Logos, God and teleology (Derrida, 1976). As Eric Havelock shows in his *Preface to Plato* (1963), it is this original presence that allows for the notion of a coherent self that can produce true knowledge of reality.

When one does assume such a unity between the subject and object one gets trapped in what Lacan calls a ‘dyadic’, imaginary, or 'nostalgic' theory of knowledge. As is the case in Plato's highly influential theory of reminiscence (anamnesis).

> “Something of the ability to recognise his natural object, so apparent in animals, is present in man. There is being captured by form, being seized by play, being gripped by the mirage of life. That is what a theoretical, or theorial, or contemplative, or Platonic thought refers to, and it isn’t an accident that Plato places reminiscence at the centre of his entire theory of knowledge. The natural object, the harmonic correspondent of the living being, is recognisable because its outline has already been sketched. And for it to have been sketched, it must already have been within the object which is going to join itself to it. That is the relation of the dyad. Plato’s entire theory of knowledge – Jean Hyppolite won’t contradict me – is dyadic” (S.2, 87).

Platonism grounds its claim on true knowledge in assigning a pivotal role to reminiscence or recollection. Via the exact recollection of the knowledge that is already present in his mind (but that might have got 'forgotten' or turbid) man can gain true insight in himself and the world. Thus giving man the possibility to (re) find the lost presence, it is a nostalgic desire that drives Platonic philosophy. The decisive point of Platonism is its transformation of transcendence (what surpasses our knowledge and vision, and hence is what our desire is directed at) into an object that can be ‘seen’ by the ‘eye of the soul’. Similarly Plato turns light, that which gives all else visibility, into an object; a conception that the ancients had never used before (Hillis, 1999, 138). Not surprisingly, the Platonic metaphysics that grounded the Western world is a ‘metaphysics of light’ (Blumenberg, 1993, 33). The Platonic notion of mimesis, that drives this metaphysics, connects the world of 'true objects' (the Ideas) and the sensible world. Representations of the sensible world only contain truth when they imitate or resemble the Ideas as truthfully as possible. Plato hence upholds a theory of truth as correspondence: a statement is only true when it corresponds to an extra-linguistically reality.

In the philosophy of language this Platonist philosophy became the foundation of the ‘classical’ theory of meaning. This theory holds that words directly express meaning. Language supposedly names_objects and concepts that exist independently of being named. In the influential semantics of St. Augustine, Platonism came to imply that a person could retrieve the meaning of a word by finding out what it refers to. In the classical theory of meaning (Plato, St. Augustine, Frege), meaning is a thing that exists objectively and independently of the subject. Due to this *reification* of meaning a philosopher of the classical school can think meaning as that which characterizes the essence of the reference. In assuming a continuous and uninterrupted line between the

world of meaning and its representation, it can maintain that the subject can grasp the meaning of things, a meaning existing independently of him (mental representations, Platonic forms), and express it in words. It considers mental representations as objective, i.e. they have an exact resemblance, correspondence or analogy to the object: the object of expression is analogous to the expression itself. In his description of himself as a child, for instance, St. Augustine could retrieve the meaning of a word by observing the gestures and facial expressions that the adults used to indicate an object. While there is thus no dissimilarity or difference in the process of representation (the facial expressions of the adults show *exactly* what they mean, there is no deformation or distortion in it, i.e. no 'unconscious') the representations show us the meaning of the object they refer to.

2.3. Modern subjectivity: the analogous representation of the world

The Platonism of 'pure sight' is a kind of passive representation. It certainly is not the active representation or putting forward, and one might even use the terms 'production' or 'performance', that according to Heidegger is so characteristic of modern thought. Decisive for the modern age is the transformation of man into a subject that grounds truth: something is only true when the subject represents it. Being is identified with 'being represented'. Thus the essence of the modern age is the becoming image of the world (it is 'the age of the world picture'). Heidegger connects this decisive transition in the Western world to a crucial difference in the status of fantasy. In (pre-socratic) Greek thought fantasy (*phantasia*) still concerns the 'coming into appearance' of Being: it reveals something of the secrecy of Being. Modern man, however, who has turned the world into an image, merely *fantasizes*: he imagines all beings to be nothing but objects that are at his use:

> "In unconcealment *fantasia* comes to pass: the coming-into-appearance, as a particular something, of that which presences - for man, who himself presences toward what appears. Man as representing subject, however "fantasizes", i.e., he moves in *imaginatio*, in that his representing imagines, pictures forth, whatever is, as the objective, into the world as picture" (Heidegger, 1997, 147).

In his text on modern subjectivity Heidegger addresses primarily René Descartes (1596-1650), one of the main founders of modern thinking about man and world. The modern science that Descartes helped to set up posits the human subject at a centrally located point: as the guarantee of the certainty of knowledge. For Heidegger this modern subject of representation is a philosophical dreamer: it imagines the world to be analogous to its desire for certainty.[13]

The tradition of the analogy of mind and world, representation and reality, or knowledge and truth reached its height in the philosophy of Hegel where the Spirit finds its completion (desire finds its fulfillment) in a complete knowledge of itself as it is reflected in the world: "Das absolute Wissen". Because this 'absolute knowledge'

[13] Gilbert Durand also stresses the relationship between modern subjectivity and the fantastic function. He does not characterize the subject of representation itself as a fantasizing entity, but holds fantasy to be ineradicable from the scientific enterprise, whose foundations he discovers in the analogous relation between the natural and the mathematical: "Invention is creative imagination … The whole of modern science, since Descartes, rests on a double *analogy*: namely that algebra is analogous to geometry, and that natural determinisms are analogous to mathematical processes" (Durand, 1999, 381).

results from a dialectical development of the Spirit throughout history, Hegel criticizes the Romantic notion of an intuitive knowledge given in 'intellectual vision' (Schelling's 'Intellektuelle Anschauung'). Nevertheless, the knowledge of the Spirit is based on recollection. For it is about the inwardizing (*Er-Innerung*; recollection) of the Spirit which was still (only) outwardly manifested (Hegel, 1977, 456). The Spirit that gains (full) consciousness of itself is the re-collection of the Spirit that is still exterior in its natural, outward appearances. So the end of Hegelian desire is the dissolution or rising of nature into its *true form*: attaining a true sense of presence.[14]

3. Psychoanalysis: the mediation of presence

> "The crumbled and crumbling character of that repressed thought is what our everyday experience, in psychoanalysis, teaches us. Therefore it is a gross and improper mythology to present as the foundation of our experience whatever nostalgia, of a pure and simple pulsation of satisfaction, for a primitive unity" (S.14, 18-01-1967; my translation[15]).

3.1. The 'gap' in the analogical mind

In the philosophies of Plato and Hegel, the first and the final steps in the metaphysical tradition of *anamnesis*, mental representations are essentially a reflection of a (transcendent or immanent) 'true reality'. The principle of analogy underpins this identity of representation and reality. As well as a certain notion of recollection.[16] But Freud's 'discovery' of the unconscious was a major factor in the obstruction of the pretentious transparency of the subject of representation. Recollection can also be an unconscious process; one can recollect a traumatic experience at an unconscious level. Although Freud in his early work thought that it was possible to recollect, and thereby discharge, these traumatic events, he soon came to realize that one cannot resolve psychical reality into 'true reality'. There is a 'gap' (of reference) in reality, and therefore representation (of the past) is never (fully) analogous. It is not an exact resemblance of (historical) reality; other codes than those of analogy determine representation as well. The unconscious involves a gap in the representation, which causes the resemblance with the object to fall short. Therefore the Freudian discovery is a break with the paradigm of similarity, or even (complete) identity, of *knowledge* and *truth*. Conscious knowledge never fully corresponds with the (unconscious) truth of ourselves.

Nostalgia also thrives on the illusion of a parallelism between an ideal order of references (the 'true' object) and an order of representations (the human subject). It is, however, not a similar parallelism that establishes desire. Precisely the 'blind spot' in

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[14] With his 'mirror of nature' thesis Richard Rorty expands such a description of two major philosophies of the modern age to the whole of 'traditional' philosophy. Throughout the ages the major traditions in philosophy would frenetically have tried to position itself as a 'mirror of nature' that reflects the basic structures of reality and studies the laws of reflection itself. Richard Rorty, *Philosophy and the Mirror of Nature* (Oxford: Blackwell, 1980).

[15] I will henceforth refer to my translations as *m.t*.

[16] I equate analogy with mimesis and resemblance, as Markus Doel and David Clarke do in their article on virtual worlds (Doel and Clarke, 1999, 270).

'the analogical mind'[17] constitutes desire. One cannot understand its meaning by comparing it to (paralleling it with) the familiar situation. It does not 'represent what is signified' but it signifies itself: only by telling about my desires can I come to know what they mean, they do not have a 'true reality' before their articulation. Reality, which psychoanalysis primordially conceives as a psychical reality, is always-already complemented or supplemented ('completed') by the desire to have what one never had. Nostalgia illustrates this: the best way to annihilate this desirable reality is to invent a time-machine and travel back in time in order to find out that 'real' reality does not correspond to the representation we made of it.

Therefore, there is no identity of thinking and being, and, Lacan says, there never will be: "*Aufhebung* is one of philosophy's pretty little dreams" (S.20, 86). Desire is not a 'mirror of nature'. If one considers it to be so, one is in the dyadic structure of imaginary illusions. Lacan might share Rorty's analysis that philosophy is very capable of constructing such "pretty little dreams". And – I would add – technologies are also very capable of doing so. In an uncritical approach the notion that technologies – from photography to Virtual Reality – can achieve an unmediated presentation of reality (an 'undistorted' relation between subject and object) is still very compelling (cf. Bolter/Grusin, 2000, 30). And a user hardly notices or perceives that the 'images' he deals with are built up of discontinuous elements. But when one takes a better look, one must admit that the digital world is discontinuous, it represents by means of discrete units (cf. the digital clock with its 'jumps'). So, as Steven Holzman analyses, "there will always be a gap of some sort in any digital representation" (in Simons, 2002, 68). This discontinuity, however, does not just characterize digital representations. All sign systems have such a gap: they never represent reality as a perfect copy, but always by means of something (words, images …) different from what it represents.[18] Furthermore, in sign systems there is always a selection and a composition of elements (for instance in a sentence: which words do I choose, and how do I combine them; which Lacan elaborated into the metaphorical and metonymical axis of language). The two basic principles that guide most computer application are *selection* and *composition*. The material that is composited into a new media object is in many cases selected from a database of documents.

In this gap Freud posits the functioning of the unconscious, with the psychical reality of fantasy as its core: fantasy 'fills in' the gap. Therefore Freudian theory is an instrument well-suited to the analysis of the digital era. It is not without reason that some critics state that reality in the digital era resembles the psychical reality that psychoanalysis analyses: they both consist of the compositing of different elements or fragments. In an essay called 'Digital Desire' a commentator stresses this correspondence between digital media and Freud's theory: "history is similarly represented by fragments, in the form of images, sound bytes and video clips, which embody the whole, but do not reveal the whole in detail" (Savage, 2000)

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[17] I refer here to a collection of essays on cognitive psychology: D. Gentner, K. JHolyoak, and B. N. Kokinov, *The Analogical Mind. Perspectives from Cognitive Science* (Cambridge, Ma. /London: MIT Press, 2001).

[18] There is a gap in the signifying order. The order of representations that allows man to encode and store knowledge of the world does not cover all that is knowable in the world. Language does not tell all there is to tell about reality. Therefore the British writer Lewis Carroll (1832-1898) invented his own language: 'Jabberwocky'. He thus shows that human creativity can fill in the gap of language by creating new signs (cf. Danesi, 2002, 32).

In his analysis of hypertexts, that construct the World Wide Web, Espen Aarseth puts this problematic of the part and the whole in a central position. In hypertexts we never reach completion because there are always the links that we haven't investigated yet. Because of this 'constitutive leftover' hypertexts are structurally constructed around aporia's:

> "the hypertext aporia prevents us from making sense of the whole because we may not have access to a particular part. Aporia here becomes a trope, an absent pièce de résistance rather than the usual transcendental resistance of the (absent) meaning of a difficult passage (Aarseth, 1997, 91).

Hypertexts thus seem to bring about a transition from the interpretative-hermeneutical enterprise of discovering the (hidden) meaning of a text or story, to the discovery and exploration of the informational space. When the text thus becomes a labyrinth, reading becomes exploring, and interpreting becomes doing puzzles (Simons, 2002, 195).

Lacan's remark that in order to become a good psychoanalyst, one should try to resolve many crossword puzzles hints that in his work one can find both the hermeneutical and the explorative schools of thought. I will first of all describe the hermeneutical paradigm of the 'classical' Lacan, in which the discourse of the Other (sign systems, 'langage') gives meaning to individual expressions ('parole'). This description takes place in the next paragraph (3.2.) where I explain the Lacanian split subject by way of the Platonic Eros, clarifying the notion that the desire to become One is always mediated by the Other. Further on in this thesis I will focus more on the later Lacan with his emphasis on the 'constitutive leftover' of the discourse of the Other (the *object a*) that prevents all interpretation from reaching 'true meaning'. The limit of interpretation is then not only the result of the transcendental absence of such a meaning (of the object that we desire), but also of the inescapable (bodily, libidinal) fantasmatic formation of the object. It's not just that we cannot reach the true meaning of a text because all words do not come up to the mark, but also because we 'mark' the text by our subjective completion of it (we flesh out the transcendental lacuna). Lacan then moves from asserting the gap between signs and reality, towards the (material) formation of this gap: the 'support' of the 'texts' moves from Other to fantasy. In this chapter I will introduce fantasy's necessary mediation by means of the sentiment that is attached to it: namely beauty (3.3.). Thus I hope to introduce the notion that the interfaces of information and communication technologies are clear-cut media that give form to the gap.

3.2."You can't have One without the Other"

In *The Symposium* Plato gives a glorious account of love. The guests he puts on the scene at Agathon's dinner discuss the god Eros and delineate what is now known of as the Platonic concept of love. Through Aristophanes Plato formulates a myth about the original human body (with four legs, arms et cetera) which Zeus, as a punishment for man’s attempts to attack the gods, cuts in half in order to weaken mankind. Love is the desire of the split human being for its Other half: the desire to become One again.

Platonic Eros is the inner tension that makes us aspire and desire for the beautiful, for it is beauty, in all its manifestations, that love aims at. In beauty man finds what he is looking for. We can only be happy if a perfectly realized love makes us return to our original state and thus ‘heals’ us. Since Platonism conceives the beautiful

as something which really exists, the desire for it is not principally unrealizable. Man can realize his basic 'nostalgic' desire, which continuously causes him to search further and further, in the contemplation of the archetype of all that is beautiful: the Form of Beauty. A (re) finding of beauty in a particular thing is seen as a reference to beauty in general. Physical beauty refers to spiritual beauty, and the beauty of social institutions refers to the beauty of knowledge and science. Platonic Eros is a desire which refers to Beauty itself and finds its final aim in its contemplation. This Beauty, of which all other things partake, really exists in a higher ontological domain.

For Plato, as he states through Agathon in *Symposium*, love hence can eliminate alienation:

> "And now I am stirred to speak in numbers, and to tell how it is he that brings
> Peace upon earth, the breathless calm
> That lulls the long-tormented deep,
> Rest to the winds, and that sweet balm
> And solace of our nature, sleep.
> And it is he that banishes estrangement and ushers friendship in" (Plato, 1978, 549).

Plato explains, through Socrates' account of the theory of the fortune-teller Diotima, that Eros is the child of Success and Poverty. In its pursuit of Beauty it finds itself between Insight and Ignorance. Lacanian Eros is rather - in the words of Lacan commentator Bruce Fink - a child of language and *jouissance* (cf. Fink, 1999). Language divides the 'original' experience of being One (*jouissance*); it cuts the human being into two parts, as Zeus did with the original man. To exist is then to live within the domain of the Other.[19] Because the medium (language) wherein we express ourselves necessarily connects us to the Other, the loss of the satisfied Self is original: we are necessarily alienated.

Therefore one cannot use Lacanian theory for a romantic criticism of technology, as witnessed especially the 1960s (cf. Mitcham, 1994, 243). Technology is not alienation from a pre-technological real world. In the context of a theory of new media, Lacan's basic notion of mediation through the Other (alienation) teaches us that all representations are already discontinuous with 'real reality', since they consist of discrete units (the binary oppositions of structural anthropology - high/low, in/out etc. - or those of digitality - zeros and ones). Although new media may appear as an (analogue) resemblance of reality, they still are a 'language' in that they represent by means of discrete and discontinuous units.

For Lacan, the operations of alienation and separation (of the satisfying objects) go hand in hand: they constitute the subject (cf. S.11, ch. 16). In the first episode of his thinking, untill the end of the 1950's, Lacan focuses on the concept of *alienation*. The multivalent notion that 'desire is the desire of the Other' summarizes this tendency. This

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[19] In Lacanian theory one writes the Other with a capital O in order to indicate its general meaning as the *place to which the word addresses itself*, which is not necessarily another concrete person; also non-concrete others such as God, ideals et cetera, can occupy this place. However, the first Other is the mother, the parents or guardians. "The Other is the locus in which is situated the chain of signifiers that governs whatever may be made present of the subject - it is the field of that living being in which the subject has to appear" (S.11, 203). I will explicate the Other of language, in relation to virtualization, further in chapter 3: § 3.2.

means first of all that man *desires to be the object of the desire of the other*. Via Kojève this leads back to the Hegelian notion of recognition as a fulfillment of desire. It also means that the subject *desires as another*. The desire of others mediates our desire: I want something because someone else wants it. In addition to this it implies that desire is a *desire for the other*, as in Plato's conception of Eros, added with the 'incestuous' dimension that desire is thought of having in psychoanalysis. Lastly, it means that desire is always "the desire for something else" (Ec., 167). So we see that the early Lacan follows the Hegelian tradition in the analysis of desire. At the apogee of his structuralist period, as in his first seminars at the beginning of the 1950's, he seems to believe in a full determination by the symbolic Other. Symbolic laws govern the reality of man, who can only find some sort of freedom by recognizing the law. It is the (structural) field of the Other that determines meaning.

One could illustrate the workings of the realm of the Other as it brings reality into existence using Orson Welles' radio transmission of 30 October 1938: *The War of the Worlds*. Many listeners actually experienced this 'news-broadcast' as being the commentary of earth's invasion by Martians. They were lured because the institutional contexts of Hollywood and of radio-news were changed without any (explicit) notice to the listener. This shows that in order for something to be experienced as *true*, it is necessary that one *believes* in the whole network of cultural, institutional and professional conventions that present it. For if this act of faith was not (unconsciously) executed (that is, when it was made explicit that the broadcast was a Hollywood production) all the commotion about being attacked by Martians would not have occurred. So, with this awareness of the constitutive role of the big Other, one could doubt whether it is the introduction of digital images as such – embroidering on the prior introduction of photographic, filmic or televisional images - that leads to a bigger distrust of their veracity (cf. Simons, 2002, 165, 322). For reality's representation always was to a large extent a matter of selection and composition. It is precisely the act of belief in the context in which it is presented (the big Other) that is decisive for its truthfulness.

3.3. Eros as Thanathos: Beauty as a mediator

> "For Beauty is nothing but
> the beginning of awesomeness which we can barely endure,
> we marvel at it so, because it calmly disdains
> to destroy us" (Rilke, 1975, 2)

Lacan outgrows structuralism, accompanying this shift with an emphasis on the real other of the process of *separation*. He now holds that it is not just the context of signifiers that determines the value of a representation, but also the (idiosyncratic) pleasure they may provide. Lacan focuses on the subject as a libidinal body. This (bodily) subject is separated from the objects of its partial drives, and is not just alienated because of the intersubjective character of the human world. Separation hence poses an internal limit towards the possibilities of 'appeasing' desire by means of recognition. The drives don't care about recognition; they want satisfaction. Notwithstanding the fact that we have lost the objects that can satisfy our desires, the drives remain attached to those impossible object-experiences of full satisfaction. They seek its 'simulation' by means of fantasy. The drives' excessive nature causes the

realization of (full) satisfaction to be at the expense of desire (the conception of the orgasm as 'the little death' says it all). They are essentially death-drives. The main road to avoid their impossible goal is to provide substitute pleasure by means of fantasy, that is, as we will see, to seek the enjoyment of beauty.

Plato grounds the desire for 'self-realization' in the reminiscence of Beauty "seen" by man's psyche 'before he saw the first light of day as a material being. As our corporeal existence now chains us to the material world and chains our mind, the goal is to free ourselves from the material delimitations. Lacan, who radically rejects all speculative ideas about a higher realm beyond our earthly world, also grounds desire in some sort of reminiscence. He situates this reminiscence that guides our desire in what he calls the real, the real of our past and earliest satisfactions of the different drives. Because those satisfactions that direct our desire are, obviously, not present anymore and are not representable as what they were, they belong to the order of the real. Just think of attempts, common enough, to reconstruct a pleasurable event of the past: it is never the same. Therefore, Lacan says, it is via fantasy that we relate ourselves to the real. The lost satisfaction of the drives motivates Eros, not the Platonic ideal forms of Beauty.

Lacan puts forward that a *fundamental loss* characterizes the desiring subject; it does not have a complementary part that can deliver it.

> "Aristophanes' myth pictures the pursuit of the complement for us in a moving, and misleading, way, by articulating that it is the other, one's sexual other half, that the living being seeks in love. To this mythical representation of the mystery of love, analytic experience substitutes the search by the subject, not of the sexual complement, but of the part of himself, lost forever, that is constituted by the fact that he is only a sexed living being, and that he is no longer immortal" (S.11, 205).

Lacan puts his myth of the 'lamella' (S.11, 197-199; Ec., 845-848) against the myth of Aristophanes. The 'lamella' is what gets lost every time sexual reproduction leads to new life. Like an egg (with the perfect shape of continuity of Aristophanes' original people) must break in order for the new creature to come out. What gets lost with sexual reproduction is eternal life itself. Lacan calls the 'lamella' the libido, the pure force of a life that is indestructible. So it is sexual reproduction that introduces in life a *real* loss, namely individual death. Not a loss that man can cancel by recovering what it has lost.[20] Lacan uses his myth that links life to death for his broader theory on sexuality. There is no sexual completion of desire; man does not complete woman, or vice versa. Not even love can bring salvation.

As this relentless search for lost satisfactions goes along with something "that goes against life" (S.17, 51), Eros is bound up to Thanathos. Or, to put it in the words of Marie Bonaparte, "one of the most constant features of Eros is that he drags his brother Thanathos along behind him".[21] Lacan's theory of desire hence continues on the fundamental insights of Freudian theory regarding the inseparability of Eros and Thanathos. Or, actually it modifies the Freudian binary conception of the drives by viewing the drives that support life, and the drives that aim at death, as two aspects of the same drive (Miller, 2000, 20-21). Every drive is, profoundly, a death drive (S.11,

[20] Man can only *retrace* this original loss, without finding it again. This retracing is the path of fantasy!
[21] Marie Bonaparte, *Eros, Chronos et Thanatos* (Paris: P.U.F., 1952, 120). Cited in Durant, 1992, p. 189.

205). When it reaches ‘the real thing’ the tension in the ‘psychic apparatus’ is reduced to zero. Antigone illustrates this realization of desire as an ‘eclipse’ of the subject. As she demonstrates in Sophocles' tragedy of the same name, in ‘not giving up on her desire’: she dies. The final point of desire is the point where desire extinguishes itself, where it annihilates itself and its object. It is the point of (self)sacrifice.[22]

Nevertheless, there is also in Lacanian theory an obvious relationship between Beauty and desire (cf. 'The function of the beautiful', S.7, 231-240). Yet not in the Platonic sense: Beauty does not fully realize desire itself, as in the Platonic view. Lacan's analysis of Sophocles' tragedy *Antigone* shows this (S.7, 243-287). According to Lacan, Antigone makes us see the terminal point of desire, and because she does not ‘give way to her desire’ she radiates Beauty. This Beauty that the tragedy expresses can lessen our desire, and therefore tragedies can have a cathartic function. For Lacan Beauty has a protective function: it makes us stop before we might reach the terminal point (‘in the real’, by means of the transgressive act) of our desire.

From this notion of Beauty as it functions in tragic desire, one can discern the function of Beauty in a broader scope. When there is no 'happy' terminal point when we try to realize our (excessive) desire, it is only the 'beautiful' substitution of the impossible object that can give some satisfaction. It is, as Lacan says, Beauty that can 'dab' or ease our desire. It cannot realize it. It prevents us, by contrast, from the fateful dynamic of 'self-realizing' transgressions by giving a sublime mask to a non-existing object. All most highly valued cultural representations (art, literature, science) focus on such a representation of a non-representable real (cf. Ribettes, 1984, 196-7). They try to give a beautiful form to an object that is beyond our (human) limits. In that sense they all involve artistic sublimation.

Beauty is the name for the affect that is attached to fantasy. It indicates that the screen of fantasy mediates the relation of the subject and the object of desire. Nowadays we must also consider how this sublimatory activity takes place in technology. From an anthropological point of view a major factor that connects man to the technological world, is the technological production of attractive objects. Their value surpasses their usefulness.

3.4. Lacanian anthropology: beyond the need

For Lacan desire is the essence of human existence, as it was for example for Spinoza (cf. S.11, 275). Actually one must be more precise, for, Lacan says, in a-theological system (that pulls man away from the center of the world) the term “man” is impossible to conserve. Then he suggests substituting the Spinozist formula that “desire is the essence of man” by “desire is the essence of reality” (S.14, 16-11-1966). Notwithstanding this transformation, he situates his theory in a long tradition of thought profoundly connecting human existence to desire. His formulation of the real as the impossible object of desire, that needs a screen (of fantasy) in order to make itself known, implies at the plane of philosophical anthropology that we never attain the final answer to the appeal that has haunted man throughout the ages and guides him towards

[22] Therefore Lacan states that pure desire is equal to a radical following of the obligation of the Kantian moral law; “the moral law which, looked at more closely, is simply desire in its pure state, that very desire that culminates in sacrifice, strictly speaking, of everything that is the object of love in one’s human tenderness – I would say, not only in the rejection of the pathological object, but also in its sacrifice and murder. That is why I wrote *Kant avec Sade*” (S.11, 275-276). For an analysis of this subject, see: Bernard Baas, *Le désir pur*.

his most secret dimensions: "Man, know thyself". Thus Lacanian theory of desire distinguishes itself from three major traditions in the conception of man.

Religious anthropology understands man - as a 'homo religiosus' - from his relations to the gods or God. It links up man's desire with a divine dimension that can salvage man's shortcomings. *Rational anthropology* puts the autonomous reason, as discovered by the ancient Greeks, on the foreground and considers it the excellent instance of the human being ('animal rationale') through which it can realize or contemplate the ideal world. So Kant states in his *Anthropology from a Pragmatic Point of View* (1798) that the process of Enlightenment can realize man. Not the individual person but mankind as a whole can fulfill its rational nature by realizing the goals it sets itself. Other rational philosophers, such as Hegel and Schelling, articulate an anthropology in which the goal - which can be achieved in reality - is a self-consciousness of the Spirit. *Biological anthropology*, finally, traces the essence of man back to his biological substance. Then man can be understood without reference to a different level of reality (other than the natural) and without crude opposition between man and animal (as in the rational anthropology), for the objects of human intentions are reducible to the natural level.

Lacan's conception of man as a 'desiring animal' moves away from those classical lines of thought in anthropological thinking. He openly dissociates himself from the biological model that was dominant in his days (and still is). For 'biologism' in psychoanalysis leads to an obliteration of the distinction between nature and culture, and to a confusion of desire and need, of drives and instincts. In order to avoid such a muddle Lacan introduces a strong distinction between need, demand and desire. *Need* is a psychological tension that results from physiological disequilibria. Physiological processes determine the object of the need. Need is removed when it has found an adequate object: food soothes one's hunger. With *demand* we enter the cultural domain of intersubjectivity. It is the *articulation of need*. Through this articulation the subject directs itself not just towards objects that can satisfy its needs, but also towards the Other. The demand is essentially a demand for love. The infant that expresses its needs, however inarticulately, does not solely want a satisfaction of its needs. It also demands the Other's presence, a presence symbolizing its love. However, the Other cannot provide the unconditional love that the subject demands. After the satisfaction of needs something remains left. The fact that the love of the Other is 'not all' causes the surplus of demand that is called *desire*. "Desire is neither the appetite for satisfaction, nor the demand for love, but the difference that results from the subtraction of the first from the second" (Ec., 287). The cause of desire is a gap between need and love, an inability in ourselves to symbolize and present the Other.[23]

Lacan's theory of desire places itself in a long tradition that goes from Plato to Spinoza and Hegel. Whereas Lacan's a-theological thinking of desire seems almost impossible without the Nietzschean notion of the 'death of God', the absence of references to Nietsche in his work are remarkable. For the 'death of God' implies not only that a metaphysical or religious fulfillment of desire is impossible; it moves every notion of a 'realization' (of desire, man, the world …) into the realm of the impossible.[24] As there is no basis on which a fixed determination of man can be made, his essence is characterized as the 'non-determined animal'. It is only with this

[23] This cause of desire is what Lacan later calls the 'objet petit a', the *object a*.

[24] Interestingly enough, this notion of the Impossible appears via the work of Georges Bataille in Lacan's notion of the Real.

disappearance of the foundations of man that the 'homelessness' of his desire is thinkable in its radical quality. Therefore Lacan's theory of desire has similarities with other great thinkers about man after the 'death of god'. Heidegger characterizes man as ex-sistent, Plessner as ex-centric. Man has lost the substantial center of his existence (remember Lacan's myth of the lamella); it is an empty place now.[25]

The surplus-object of the needs (the 'lost substance') places the Lacanian subject outside the major oppositions that philosophical anthropology uses to determine the position of man. Man is not deducible to one of the oppositional poles of the dichotomies of Body and Mind, Nature and Culture or Animal and Human. It was of course Freud who mentioned that the drive is a concept on the border of the mental and the somatical.[26] It is a *psychical representation* of the stimuli that come from the body and reach thus out into the mental. So the drive has a psychical object. And fantasy constitutes, forms, and moulds (and we might even use the word 'designs') this object. Therefore fantasy is the instance in the subject that is the interface between the natural order of (animal, bodily) forces and the cultural order of (sublimated) representations.

Now that I have brought forward that man is essentially a subject of desire according to Lacan in which it is fantasy that creates the desirable object, and that technology has an enormous power to produce and present objects of desire, shouldn't we alter our picture of man? For man as the result of the combined action of natural and cultural forces might increasingly be a compound of natural and technological forces (at the expense of the cultural dimension?). Beside the notion of man as a linguistic being we must also take seriously the question of man as a technological being. In the story of man the 'speaking organism' gets intermingled with the 'cybernetic organism'. For the distinctive feature of the cyborg is the interface of the physical body with technology (Gray, Figeueroa-Sarriera, & Mentor, 1995; Biocca, 1997).

Because the interface of fantasy plays a central role in both the experience of a desired presence (d.i. in the fulfillment of desire) and the relation between man and technology, I take fantasy as the thread in my thinking through technology.

3.5. Law and fantasy: the object a as surplus-enjoyment

> "Perhaps the most prominent psychological impact of presence is enjoyment" (Lombard/Ditton, 1997)

From a Lacanian point-of-view desire proper does not exist before this introduction of the law. It is the law that installs desire! Here Lacan differs significantly from Freud, for

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[25] What is at the real core of my motivations?: "I don't know". It is only by acknowledging this gap in the discourse of knowledge that we may avoid tumbling deeper into the trap of alienation. "The sudden, prodigious development of the power of the signifier, of the discourse that emerged from the little letters of mathematics and that is distinct from all previously existing discourses, becomes an additional alienation. In what way? Insofar as it is a discourse that by reason of its structure forgets nothing. That is why it is different from the discourse of primary memorization, which carries on inside us without our knowledge, different from the memorizing discourse of the unconscious whose center is absent, whose place is identified through the phrase "he didn't know", that is precisely the sign of that fundamental omission in which the subject is situated" (S.7, 236). The discourse of mathematics - that is also at the basis of the technologies of information - might forget the subject of the unconscious.

[26] Sigmund Freud, 'Instincts and Their Vicissitudes' (1915). The German 'Triebe' in the title 'Triebe und Triebschicksale' is here strangely enough translated as 'Instincts'.

whom there are incestuous desires and fantasies before the end of the Oedipus complex. For Lacan they are the result of the 'prohibition'.

> "But we must insist that *jouissance* is forbidden to him who speaks as such, although it can only be said between the lines for whoever is subject of the Law, since the Law is grounded in this very prohibition" (Ec., 319).

The loss of the 'imaginary plenitude' causes the proper desire of the subject.

> "Castration means that jouissance must be refused, so that it can be reached on the inverted ladder … of the Law of desire" (Ec., 324).

As the subject of desire tries to reorganize this lost object of enjoyment by means of fantasy, it is fantasy that guides the reality of the subject after castration. So, from castration results

> "that there is no cause of desire than produced by that operation, and that fantasy dominates all the reality of desire" (S.17, 149; *m.t.*).

The law regulates our normal condition. Its axiom of the 'never too much' normalizes our *jouissance* - that is translated as enjoyment - within the limits of the pleasure principle. But within this rule of the pleasure principle there are 'places' wherein the remnants of a more profound enjoyment appear in a disguised form: sublimated, artistic …. That is the domain of fantasy. Lacan introduces the term *object a* for the residue of an impossible satisfaction that fantasy tries to frame within the limits of the pleasure principle. The *object a* is a remains of the enjoyment of the 'lost paradise', that is to say the surplus of enjoyment after the installment of the law. This 'object' is what *causes* desire, and as such also the *object* of desire. In its affective dimension it is beyond signification: we cannot exactly say what it is. It transgresses the domain of the subject(ivity) of language, and makes us aware of the subject of the body.

At the intersubjective level of desire the object remains an enigma: each time we try to name it, it slips away. Lacan shows this by means of another reading of Plato's *Symposium* in his seminar on transference. At the banquet Alcibiades tries to explain his love for Socrates. Socrates is a wise man, virtuous, courageous etc. All these qualities can yet not explain Alcibiades' love for Socrates, so in the end he must recognize that there is a hidden treasure in Socrates (the 'agalma'), which makes him so desirable. According to Lacan Alcibiades hallucinates in his speech an object of desire (Schokker & Schokker, 1998, 182). This object that Alcibiades hallucinates is transferred ('transmitted') to Socrates who carries it, Lacan says, 'in his belly'. This object is what is in Socrates more than himself, what is more then the ideal image that Alcibiades constructs of him. The *object a* as object of desire is exactly what is in the other more then himself ('in you more than you'; S.11, 268 - like a media personality who becomes a 'phenomenon' that 'is bigger than himself'). The *object a* is a supplementary form of enjoyment that for the subject becomes the object of his desire. It is that in the other which makes him desirable.

> "For the subject, it is that value he or she is seeking in all of his or her activities" (Fink, 1999, 96).

Crucial to the logic of fantasy, and to the theory of psychoanalysis in general, is the determination of the constitution of the *object a* (cf. S.14, 16-11-1966). The *object a* is the surplus value that we attribute to the other via fantasy, and that transforms the other's being. Slavoj Žižek gives the example of the anti-Semitic fantasy in which the attribution of that which is "in the Jew more than the Jew himself" transforms the Jew into what he phenomenally is (Žižek, 1993, 268).

The *object a* is not only the lost object of desire but also the object that provides a positive content to desire via a fantasmatic formation of the objects of the partial drives: surplus enjoyment. This is important in order to elevate Lacanian theory from a theory of negativity (we always desire what we do not have) into also a theory of positivity (we desire what we experience as a positive content of what we do not have). "[W]e must guard against what would be an exclusive view of object *a* considered as a loss. Object *a* can be theorized in different ways, above all as surplus-of-*jouissance* where far from being a loss it is an accumulated surplus" (Nasio, 1998, 88). So within the rule of law there is a surplus, a surplus of enjoyment that does not cause desire by merely imposing limits (principle of negativity) but by providing positive 'content' to our desire. One could say, playfully, that the law provides the medium for the subject, and fantasy is the 'content provider'. Fantasy therefore has a perverse structure, for the most general characteristic of the perverse position is the ambiguity ('double talk') towards castration: one does, *and* does not recognize the lack (principle of disavowal - 'Verleugnung'). The perverse structure of fantasy is thus that it searches for enjoyment after castration, that is, via a *medium*, a mediating apparatus. Jean Baudrillard discerns a similar relationship between media and enjoyment: a technical apparatus always mediates enjoyment, but most often fantasy is the mediator– enjoyment always implies an intermediary manipulation of scenes or of gadgets (Baudrillard, 1981, 170-1). Is this perverse structure of fantasy as a medium and, as I will claim, the medium as a fantasy, not most clearly expressed in the attitude of someone towards his /her 'online adultery'. "It is not so bad because it is not real," thinks the fantasizer. This is exactly the status of fantasy: it is not real but it causes all sorts of effects in reality. As an inescapable medium it brings enjoyment within acceptable limits.

From the expositions on the fantasy-object we can draw an important conclusion for our investigations:

> All communication transmits an element that is beyond the objective qualities of either the sender or receiver. This is the element of desire that fantasy constructs: the *object a*.

3.6. Fantasy and surplus-enjoyment: between pleasure and jouissance

Psychoanalysis considers man to be an excessive animal that tries to regain, hazard and maintain his (mental) balance within the extremes of enjoyment and pain (what Lacan calls the real of *jouissance*). Fantasy functions as a screen with regards to a *jouissance* that is too excessive, traumatic. It has the fundamental tendency to limit too excessive forms of excitement and bring them within the homeostatic borders of the pleasure principle. Actually, psychoanalysis advocates that fantasy has no other function than to temper this excessive *jouissance* (Ribettes, 1984, 192). And at the same time it preserves in this protective function something of the *jouissance* it tries to temper, by transforming it, imagining it. The example of 'online cheating' may illustrate this. Playing these 'imaginary' scenes may be a way to deal with and give form to ones 'wild'

and 'unknown' sexual drives. In directing the drives the scenes may prevent libidinal energies from freely fleeting and being destructive. And at the same time it is this 'formation' that gives a certain pleasure to the subject. In Freudo-Lacanian psychoanalysis the pleasure principle is a principle of homeostasis: it must keep the tension at a constant, acceptable, 'comfortable' level. Fantasy is beyond the pleasure principle in a double way. First of all it *precedes* the pleasure principle. Fantasy makes its functioning possible by binding the excessive energies to representations. Secondly, it *exceeds* the pleasure principle: after it has conditioned the pleasure principle it organizes 'situations' wherein man can experience something of what is beyond his possibilities. Fantasy, in its normal form, is thus protective and subversive at the same time.

These are the two forms of the 'beyond of the pleasure principle' that Freud discerns. His analysis in *Beyond the Pleasure Principle* of repetition of painful dreams in traumatic neuroses and the repetition of the departure of the mother in a child's play shows that there are phenomena that seem to contradict the mechanism of the pleasure principle. For the pleasure principle is first of all a mechanism to *avoid displeasure*: the psychic apparatus aims at keeping the quantity of tension or excitement as low as possible, or at least at a constant level. Freud argues that the repetition of painful events functions as a capturing of energies that are not bound. It binds the energies of the trauma to certain representations, and as such it is preliminary to the opposition of pleasure and displeasure. By binding the energies it actually installs the pleasure principle, for this is a principle that functions at the level of psychic representations. It controls the excitement *that is associated with certain representations*. Because of this binding of excitement to (imaginary) representations the pleasure principle functions at the level of the Lacanian imaginary. The death drive, by contrast, consists of the unbinding of the mediated representation of excitement, and is hence characterized by the loss of control over excitement. It disrupts the imaginary order of the pleasure principle.

In order to understand the enjoyment 'at work' in fantasy, we must first of all take a look at Lacan's comprehension of enjoyment (*jouissance*). The most commonly made mistake is to confuse enjoyment with feelings of pleasure. However, if one wants to have an idea of what Lacan means by enjoyment, the first thing to do is to let go of this confusion. Enjoyment is not pleasure! It can be found exactly there where the regulation of the psyche by means of the principles of pleasure and displeasure reaches its limits. The excitement that seizes someone who drives his car as fast as possible is not pleasure. The excitement of a voyeur who can be caught any moment in his act of looking is not simply pleasure. "Let us be clear: *jouissance* is not pleasure, but a state beyond pleasure; or to use Freud's terms, it is an excessive tension, a maximum tension, while on the contrary, pleasure is a diminution of tension" (Nasio, 1998, 106); "Pleasure is always dependent on the coming and going of images that appear to me. Pleasure is a sensation perceived and experienced by the ego … Lacan, inspired by the cogito of Descartes, located the position of the subject in the state of *jouissance* by stating "I am there where I do not think" (Nasio, 1998, 39-40). Enjoying is even dissimilar from feeling, if one comprehends feeling as a conscious process, as a conscious noticing of sensations (cf. Nasio, 1987, 135). I can enjoy a book, but this enjoyment is not simply equal to the perception of the feelings it provokes (I feel exalted, wrought up …). The enjoyment might be that it 'transposes' me in another mood: I am absorbed into another world, into another way of perceiving (so that I might feel what the protagonist is

feeling). Because of this effect, often not even consciously perceived, enjoyment is so difficult to grasp. Nevertheless, it does have a conditioning function. It is comparable to a mood: a *frame of mind*, a *state of mind*. It shows itself *in its effects*: in a depressive mood an occurrence that otherwise might make me exalted now makes me sad.[27]

In enjoyment the *limits of our self* are at stake. With this given one can discriminate between three major forms of enjoyment: enjoyment that recognizes the law and that therefore seeks its benefit in an imaginary realm where the law does not count; enjoyment that transgresses the law, and enjoyment as a 'playing' with the law. Since the law - as normative for personal identity - is the measure, the question is how a subject of the law relates to (pre-subjective) enjoyment (that is to say enjoyment that is not reconcilable with functioning as a healthy individual). In the first form of enjoyment the subject holds to it while at the same time acknowledging the rules and customs that prohibit the ('infantile') forms of enjoyment. This situation of conflict will then give rise to the formation of (neurotic) symptoms. Such symptoms are the clearest manifestation of a form of enjoyment based on *repression*. The unacceptable desires are repressed, but in spite of this dominance of the law the subject is so much attached or 'fixated' to the 'forbidden fruits' that his desires find a compromise form of enjoyment in his symptoms. Because of the organization of enjoyment within the rule of the (paternal) law this enjoyment is called phallic.

The second form of enjoyment does not exist in recognition of the law, but in transgressing it. The subject then rejects the normalizing mediation of the law that prescribes us how to relate to the other. The subject refuses to be subjected: it immediately realizes its desires. The 'passage a l'act' is a clear example of such a total form of enjoyment. However, this '*foreclosure*' of the law, the refusal to mediate desire via the law of the Other, also means a collapse of normalcy. Psychotic hallucination, which is also a form of total enjoyment, shows this. The object of desire is then immediately present. That is, dreams become true, they become present in the real, which results in the incapability to maintain a sufficient distinction between reality and illusion: in a hallucination someone immediately perceives what he imagines. For Lacan a real hallucinatory satisfaction of desire is therefore destructive. It is a radical way of escaping the external limitations that the reality principle imposes. It is not a safe haven where the subject can continue to experience the pleasures that reality made it give up, but it radically rejects reality. Therefore pleasure can exceed into total enjoyment.

The third form of enjoyment is the surplus-enjoyment. Actually, this is the 'first' form of enjoyment, for enjoyment is introduced first of all as surplus-enjoyment (cf. S.17, 56). Lacan modeled his notion of surplus enjoyment after the Marxian notion of surplus value (cf. Žižek, 1992, 171; Fink, 1999, 96). In a capitalist system of production the workman looses the enjoyment, the 'fruit' of his labor: this goes to the capitalist (for reinvestments). Similarly, man as subjected to the law – that assigns him a limited position - looses enjoyment. Alienation – the subjection to the chain – causes a separation of what is most valuable to us. However, according to Lacan the subject can *regain some elements of this lost enjoyment* after the recognition of the law. This occurs not via the neurotic or the transgressive path, but via what one is tempted to call the 'normal' path. That is, via fantasy. For it is *fantasy* that organizes the forms of *surplus enjoyment*

[27] Let me notice here that enjoyment consequently is a crucial notion for 'the virtualization of feelings'. There are not simply natural feelings. In the way I elaborate the notion of enjoyment now, feelings are conditioned by enjoyment as a frame of mind.

Psychologist and system-analyst Raymond Barglow brings forward that mechanical technologies seem to correspond to the logic of what we would call phallic enjoyment, wherein the subject finds it enjoyment in a further strengthening of its singularity and (pretended) autonomy (and therefore in a repression of his limitations). Mechanical technologies, such as driving a car and using hand tools, turn around the notions of an autonomous individual and human agency. They suppose an instrumental use of technologies wherein man is an autonomous agency who uses the technologies according to his plans. However, information technologies operate on a much 'trickier' level, where the roles might be turned around: those technologies involve us to such a degree that they challenge the boundaries of the rational self. That is, the computer may appear as an other, or as an extension of myself that I - as a rational subject - cannot clearly control because my machine and I are so closely tied together. As such they provide a form of hallucinatory enjoyment, wherein the rules of 'normal reality' are sidelined. From a psychoanalytical perspective one can make the distinction between technologies as a pre-Oedipal or as an Oedipal object. "The difference between our interactions with mechanical and with information technologies can be viewed psychoanalytically. The automobile is an exemplary Oedipal object, especially for men. It fulfills the classical male fantasy of penetration without entrapment: one hurtles through space to one's destination, but one can stop at any time one wants. Conversely, the rage experienced when one's trajectory is impeded expresses a kind of castration. The computer, on the other hand, tends to operate in the unconscious at a more fundamental level, as a pre-oedipal object related to its user as a mother is bonded to her child before its own boundaries and personal identity have been consolidated" (Barglow, 1994, 14).

Interestingly enough within a Lacanian theory of fantasy one does not have to think within this scheme of two opposites. The (technological) fantasy-object is not necessarily an object that individuated, Oedipal subjects erect as a phallus in order to show their potency, and that acts as a destructive force towards everything that does not comply with their will. Neither does it have to function as an object that engages the desiring subject's attention to such a large degree that he gets fully absorbed in it and loses contact with reality. The most interesting issue is to get sight of how fantasy-objects already shape the awareness of reality. That is, how they unconsciously shape our experience of reality, without this 'formation' being necessarily a merely imaginary deviation. The 'third road' of fantasy as a necessary intermediary between so-called objective reality and subjective illusion will guide us in our consideration of the new technological formations of the object.

Conclusion.

When one focuses on technologies from the perspective of desire – a perspective I have argued is legitimate but difficult – they 'work' beyond instrumentality. The technologies then appear as (psychical) media: as environments for us to live in, and in which we 'enjoy ourselves'. The desire for 'transcendence' that is at work in technologies may find some sort of (momentary) 'realization' when the medium succeeds in luring us and making us believe that we are dealing with 'the real thing'. Since Baudrillard's work considers this 'hallucinatory' aspect of the world of media and technologies, I found it worth mentioning in order to articulate a 'realization of fantasy' also evident in Lacanian psychoanalysis as a destructive terminal point of desire. Although Lacan and Baudrillard differ on whether desire can actually realize itself, and hence exterminate

itself in technological fantasy (which would imply a 'murder on the real' - as Baudrillard claims) I think Lacan also uses a concept of 'desire for simulation'. So, though I recognize the 'desire for simulation', I don't think we should jump to the conclusion too hastily that media fully realize this desire leading to a world of mere simulations. On the other hand, it would be wrong to think naively that media can transport us to the real (world). By discussing a selection of both classical lines of thought and major topics in Lacanian psychoanalysis, it becomes clear that we should not conceive of this double, parallel world of media - that we always live in - as the perfect 'mirror of nature'. The latest technological manifestation of this parallel world, cyberspace, should hence not be considered as a (present) space of information that we must get access to. Rather cyberspace should be conceived as a technological construction in the same realm of images and symbols with which man has always constructed reality. In order to understand media beyond the models of simulation and of 'access to the real', I introduced the model of fantasy. Fantasy is crucial for grasping, on the psychical level, this aspect of construction. In Lacanian psychoanalysis fantasy is a necessary intermediary between 'real presence' and human consciousness. I have shown this crucial functioning of fantasy by its affectivity of beauty. And by describing that fantasy is not first of all a matter of (neurotic) imaginary pleasure, or of (psychotic) hallucination. Fantasy is a 'necessary deviation': as beings of desire - cut in half by the word - we cannot avoid to seek fulfillment and organize (particular) forms of enjoyment. The law that structures reality, and the desire that animates reality go hand in hand. Objective reality is supplemented by a surplus. Only then reality has meaning, significance, sense *for us*. Technologies as the creation of human beings operate on this fantasmatic level when they try to create worlds for us to live in.

CHAPTER TWO. THE TECHNOLOGIZATION OF HUMAN VIRTUALITY

Introduction.

When investigating virtual reality the concept "virtuality" naturally takes center stage. Therefore this chapter will examine its conception throughout the past, and then relate "virtuality" to the contemporary technologically-driven expressions of this concept which have excersized such a strong influence on its use. Reality and virtuality might well not be two conflicting domains. I draw a line from the analysis of Pierre Lévy, which shows profound philosophical insight and knowledge of state of the art technologies, to Lacan's work, trying in this way to show that his theories on language and law already contain a conception of virtuality. Where Lacan leaves off, I will try to go on and distinguish how technologies function as forces of virtualization. The computer is especially interesting as a force of virtualization, and I will try to describe how computer interfaces both continuate the virtualization of reality as well as giving it new forms. Whether computer virtuality is so revolutionary that it gives rise to dramatically new senses of the meaning of representation, and whether we can still even speak of representation in the modern sense of the word, is what I will address in the last part of this chapter. On the basis of the semiotic theories which influenced Lacan so strongly this chapter will conclude by lining out a notion of mediation (mediatization) in which there is still place for the human subject, a notion that does justice (I hope) to the vast realm of influence of digital technologies.

1. Introduction to the question of virtuality

1.1 What is virtuality: historical overview

A widely accepted conception of virtuality juxtaposes it to reality. This opposition leads us to the first meaning of the word 'virtual', where it is something that *only seemingly exists*. It is "an image or space that is not real but appears to be", such as the space of the telephone or electronic money (Mirzoeff, 1999, 91). Besides this everyday meaning, the virtual has also an important philosophical meaning. Its technological meaning will be considered later on in the next subsection.

In order to illuminate the philosophical meaning of the word 'virtual' we note that it derives from the Latin *virtus*, which means power, efficiency. One can trace the word *virtus* in its turn back to *vir*: a man or manliness (as in virility) (cf. Porter, 1996, 9-10). Thus one arrives at the notion of *virtus* in its more physical meaning, where it equates with health and sexual purity. In its moral meaning *virtus* relates to 'virtue' and indicates courage, excellence and virtuousness. Latin philosophical terminology includes the virtual in this sense of power; Greek philosophy did not know the notion of virtuality.

The philosophical application of "virtual" relates it to the relationship of *cause and effect*. Thomas Aquinas introduces the notion of the virtual or 'virtual implication or containment' ('virtualis continentia'), as a synonym of Aristotelian potentiality, indicating that the effect is already contained ('present') in the cause: the tree is already virtually present in the seed. In this classical notion, founded in the Aristotelian theory of potential and actual existence, the virtual stands for the potentiality of an essence. Duns Scotus extends this theory of virtual content, capacity or substance ('essence')

from the metaphysical to the epistemological domain by claiming that the conclusion is already present in the premises. So when it is true that machines have no feelings and I am a machine, than the conclusion that I have no feelings is already virtually present. In spite of the many controversies over this theory of virtual content, it persevered into the modern age when Leibniz brought a new edge to the position of Scotus with his theory that in all true sentences the subject contains the predicate either explicitly or virtually.

In the fourteenth century, Scholastic terminology introduces the noun *virtualitas*, effectiveness, efficiency. In its Scholastic definition, "virtuality" acquired a meaning other than one would expect from its semantics. Among the scholastics the virtual acquires the meaning of a 'virtual distinction', a distinction as-if. What we cannot distinguish in reality should be seen *as if* it were distinguished ('virtualiter'), just as a rider in the Tour de France can virtually wear the yellow jersey when during a race he is sufficiently far ahead of the leader, although in the real (actual moment) it is another that wears this jersey. Virtuality here acquires the meaning of *fictionality*. There is a second, fictional order wherein things are differently structured than in the order of things 'as they really are'. Things are not solely what they seem: they have a 'virtual double'.

The classical notion of "virtuality" equates it to potentiality. Virtuality subsequently came to characterize man as a being still able, within certain boundaries, to realize his potencies. Charles Sanders Peirce strongly criticizes this confusion of the virtual and the potential. He associates the virtual with a *difference of orders*. It is not something of the same order as the potential, which has - being the potential - merely not realized itself yet. When all being is like the potential being of the tree in the seed, everything has the same nature. He defines the virtual as follows: "A virtual X (where X is a common noun) is something, not an X, which has the efficiency (virtus) of an X … This is the proper meaning of the word; but it has been seriously confounded with 'potential', which is almost its contrary. For the potential X is of the nature of X, but is without actual efficiency" (Peirce, 1902, 763). Alterity hence seems to characterize the virtual. This bears a resemblance to the thinking of Gilles Deleuze, as formulated in *Difference and Repetition*. There Deleuze introduces a capital distinction between the possible and the virtual. The possible being is already constituted and static; it only lacks existence and must to that end realize itself. This realization, Deleuze says, is quite different from the actualization of the virtual, which is a creation, a 'becoming-other' (cf. Lévy, 1998, 14). And as Deleuze states in his book *Bergsonism*: "the possible is a false notion, the source of false problems … Everything is already *completely given*: all of the real in the image, in the pseudo-actuality of the possible" (quoted in Doel/Clarke, 1999, 280). So what Peirce and Deleuze teach us is that the multiple ways in which the virtual can actualize itself ('what man is depends on what becomes of him') differs profoundly from the teleological striving of the possible that wants to realize itself in a certain pre-determined manner ('the seed and the tree'). This notion of 'heterogenesis' is also at the basis of Pierre Lévy's philosophy of virtualization which I will discuss in part two of this chapter.[28]

Noteworthy is that the two meanings of the virtual, the common and the philosophical, are also present in the terminology of modern physics. After the decline

[28] It should be noted that the 'Deleuzian' critique of the notion of the possible bears upon its 'classical', Aristotelian interpretation. However, one cannot equate the possible to this interpretation, as for instance the philosophy of Heidegger makes clear when it characterizes being-in-the-world by a possibility that cannot be reduced to some sort of unrealized essence.

of Aristotelian philosophy modern physics included the aforementioned notions of the virtual in its new theories. In optics the theory of the 'virtual image' appears around 1700. This is the (virtual) point where the beam of rays that an object radiates and which is refracted by an optical instrument seem to converge. It is the point in a Newton (mirror) telescope where one must position one's eye in order to see the object; it is the virtual image in the mirror. The optical theory of refraction also accounts for the fact that when one puts a stick halfway in the water, what one sees is the virtual image of the part of the stick in the water, and not its actual position. In mechanics the notions of virtual powers and virtual velocity appear around 1800. These powers or velocities are not actually present but have the potency of becoming real: they can be actualized (or realized). As the emphasis is on the possibility or potency of these powers for becoming active, we are still very much in the Aristotelian scheme. One can only call them virtual in the sense of Peirce when they are already efficient although not actually present.[29]

1.2. Computer virtual reality

Nowadays we associate the notion of virtuality mostly with the virtual reality that computers generate. By calling this reality virtual, one usually refers to just one of the two basic meanings of "virtual", namely that something only seemingly exists; it is not 'real'. This was also the way in which the term was introduced in the terminology used to describe interactive computer systems. Theodore Nelson, who invented the term 'hypertext' and is (one of) the first to apply the term virtuality to computers, described virtuality in 1980 as follows:

> "By the virtuality of a thing I mean the seeming of it, as distinct from its more concrete "reality," which may not be important ... I use the term "virtual" in its traditional sense, an opposite of "real". The reality of a movie includes how the scenery was painted and where the actors were repositioned between shots, but who cares? The virtuality of a movie is what seems to be in it." (quoted in Rheingold, 1991, 177).

The movie is not just virtual on account of the fact that it is not real, but more so because of the 'reality-effects' it creates, which makes us believe that the illusion is real. The more important meaning of virtuality is this *capacity to cause effects*; "the virtual is not imaginary. It produces effects" (Lévy, 1998, 30).

The example of the movie indicates at the same time that virtuality in 'imaging-technologies' does not exclusively belong to the virtual reality of computers. Already the spectators of classical art felt themselves 'transported out of reality' and visiting a virtual reality. The development of the panorama (1792) marked the next step, wherein virtuality moved from the mental space into virtual architecture (Mirzoeff, 1999, 93). With the stereoscope, a device that contains two photographs that must be held up to the eyes to produce an effect of three-dimensionality, the possibility of such virtual visits to

[29] Benthams design of the Panopticum (1791) as a model prison in which all prisoners in a ring of cells could be supervised from a central control tower would be the dark manifestation of Peirce's notion of virtuality (or : it makes the virtual perspective into an element of social control). Although the guard is not (necessarily) present in his observation post, the *possibility* that he can observe the prisoners already causes an *effect* on their behaviour. This once again illustrates the crucial importance of the notions of cause and effect in the investigation of virtual reality.

other places became available to a broader public. This stereoscopic virtual reality received comments that show a remarkable resemblance to the way one speaks nowadays about the virtual reality of computers. The American critic Oliver Wendell described his experience as “a dream-like exaltation in which we seem to leave the body behind us and sail away into one strange scene after another, like disembodied spirits” (quoted in Mirzoeff, 1999, 94). Through its introduction of the moving interface, the cinema marks another important stage in man’s desire and ability to interface with virtual reality.

Interfacing with virtual reality by means of the computer distinguishes itself in two important ways from previous notions of virtuality. This goes especially for immersive Virtual Reality (VR): sensorimotor interaction with a computer model via a head-tracked head mounted display that gives the user a compelling sensation of actually 'being there' (presence) in the virtual world. With the computer there is for the first time an *interactive version of virtuality*.[30] Because the interface is interactive, man is not solely a passive spectator, but he can actively intervene, or navigate, in the representations that the computer generates. The user can change for instance the point of view from which the information becomes visible, or alter the conditions of the virtual world he is in. This interactivity that results from sensorimotor feedback creates a sensation not found in media like film or television and give the users a specific awareness of their bodies, for their head movements alter what they see (Biocca, 1997, § 5.3). Sandy Stone also considers interaction as the modality that distinguishes the computer from the cinematic mode of engagement (film, theater): "Interaction is the physical concretization of a desire to escape the flatness and merge into the created system. It is the sense in which the "spectator" is more than a participant, but becomes both participant in and creator of the simulation" (Stone, 2001, 192).

The second feature of computer generated virtual reality is its already mentioned *immersive* character. Via the use of stereo glasses and data gloves the user has the physical sensation of being immersed in a computer-generated reality. A direct projection of the images on the retina is currently the most advanced version. There are also technologies that use helmets (Head Mounted Display), or that project the images on screens that surround the user (CAVE). In any case, the goal of the interface-design is the experience of three-dimensionality, of being in another world that completely surrounds us.

Of course it achieves those effects in different degrees, dependent on the technology and how this makes the materiality of the interface disappear. Immersive Virtual Reality achieves the strongest effects of virtuality. But the two-dimensional screen of the personal computer can also lead to a sense of immersive virtual reality. In a *virtual world* such as World3D the user's avatar enters a virtual world inhabited by others, and hence experiences a sense of entrance or insertion in another world. A general characteristic of virtual worlds is that the tools for communication, search and retrieval are present in a continuous space. So *computer virtual reality* (virtual reality in the weakest sense) refers to all software objects, such as computer programs and databases, and their contents. The virtual reality experience then results from the

[30] Outside of this focus on immersive VR, one generally distinguishes between two forms of interactivity. Interactivity in a human-human relationship, and that in a human-data relationship. Interaction can thus consist of *communication* with other users, manipulation of digital objects, and *navigation* through a digital space of information (cf. Simons, 2002, 79).

ongoing interaction with a program or a model that results in the automatically generating of 'texts', messages and all sorts of images (cf. Lévy, 2001, 54-55).

1.3. The real and the virtual in digital technologies: four models

In their article on virtuality Marcus Doel and David Clarke describe the four major conceptions of virtuality in its contemporary technology-driven version. The first version of virtual reality, *simulation*, considers the virtual as a copy, as nothing more than a pale imitation of the real. The correspondence theory of representation that guides this discourse (a representation is only true when it corresponds to extra-mental facts) posits the real as something original that is self-identical. Here the virtual is a dangerous supplement, as the image is in Plato's philosophy. The second version of virtual reality, *suppletion*, falls victim to the same discourse of approximation, although it is an inversion of it. Here it is the real that is impartial, lacking, and imperfect. The virtual can *supplete* this real. The virtual relates to the real as the perfect does to the imperfect; it can correct the defects in the real. Doel and Clarke name the third version seduction, or *s(ed)uction*, and this "fetishised ideal of the virtual would amount to living in the (tele)presence of a full realization of the worlds possibilities" (Doel/Clarke, 1999, 274). It leads to a total annihilation of semblances. They introduce this with a nice quotation from Baudrillard. The technicians from IBM take over the task of transcribing the nine billion names of God from a community of Tibetan monks: their computer can do in a few months the job that according to the monks' beliefs achieves the purpose of the world and will end it. In this version of the relation between the real and the virtual, the real is 'a real drag' that should be left behind. The fourth version of virtual reality, which the authors adhere to themselves, revolves around the notion of the *simulacrum* as elaborated by Deleuze and Guattari. The authors' main thrust is to show that this notion evades the mistake of *confusing the virtual with the possible* made in the discourses of hyperrealization (the first two versions) and ex-termination (the third). The question of virtuality, they hold - and this is the same argument discussed in the treatment of Peirce and Deleuze - is about actualization and not about realization (of possibilities). The simulacrum expresses exactly this idea of a creation of new events out of the heterogeneous play of forces composing the virtual.

Doel and Clarke sketch the field in which one, as a philosopher, must find a position.

2. Virtualization: from Lévy to Lacan

2.1. Characteristics of virtualization

Pierre Lévy concludes his analysis of virtuality by putting it on a par with desubstantialization. He summarizes his views as follows:

> "Virtualization, or the transition to a problematic, in no way implies a disappearance in illusion or dematerialization. Rather, it should be understood as a form of "desubstantialization" … This desubstantialization is broken into a related series of changes: deterritorialization, the Moebius effect – which organizes the endless loop of interior and exterior – the sharing of private elements, and the subjective integration of public items … Subjectivation is the implication of technological, semiotic, and social means in the individual's

> psychic and somatic functions. Objectivation will be defined as the mutual implication of subjective acts in the process of constructing a shared world. Subjectivation and Objectivation are therefore two complementary aspects of virtualization. In fact, in terms of what they do, neither subject nor object are substances but fluctuating nodes of events that mutually interface with and envelop one another" (Lévy, 1998, 169).

This very brief description needs some explanation. First of all we make note of the proposal contained in Lévy's analysis to go against the tide of philosophical tradition which always focused on the passage from the possible to the real, or from the virtual to the actual (cf. Levy, 1998, 16-17): the model of 'realizing our possibilities' and of (the humanistic ideal of) self-actualization etc. Lévy tries to analyze the inverse transformation, that is to say the 'becoming virtual'. This is not something that, as common understanding would have it, occurs only by way of digital technologies. As will be shown further on, it belongs to the process of 'becoming human' itself. Lévy understands this virtualization as a "transition to a problematic". Hereby an object - or the human self - loses its fixed identity and is transposed to a virtual field of (opposing) tendencies and forces within which it can manifest itself in several, different actualizations. Similarly a virtualized text, a constructive hypertext, loses its fixed character and steady authorship and may therefore appear in several new forms (Michael Joyce distinguishes the *constructive* hypertext that allows the 'reader' to become a 'writer', from the *explorative* hypertext that merely enlarges the user's navigational space, cf. De Mul, 2002, 119). For the human being in general goes that it can manifest itself differently in different circumstances. Lévy's Deleuzian inspiration resides in this focus on the creative process of 'becoming other' or heterogenesis which is enabled by virtualization.

Lévy's study stresses, in its philosophical-anthropological dimension, that virtualization and humanization are concurrent processes. His reflections teach us that a dimension of virtuality always permeated man's reality. This is nothing other than saying that 'desubstantialization' characterizes man's reality. Lévy divides this 'desubstantialization' into several categories. First there is the process of deterritorialization as a detachment of the here and now. He describes this process by referring to the work of one of his predecessors in the description of the virtual, Michel Serres, who in his book *Atlas* pictures the virtual as a process of leaving the 'there': "Imagination, memory, knowledge, and religion are the vectors of virtualization that have enabled us to leave this "there" long before the appearance of computerization and digital networks" (Lévy, 1998, 28).

With his reference to the Moebius effect Lévy emphasizes that a category such as virtualization impedes us in thinking in schemes of simple oppositions. For the Moebius strip, which can be formed by twisting a long rectangle of paper and joining its ends together, is a figure in which one cannot distinguish between the inside and the outside: they are continuous. Considering virtualization as a constitutive function of human reality there is no clear division between inside and outside, between self and other ('no clear distinction of body and mind'): we incorporate texts written by others (we subjectify them), we externalize our inner body by medical imaging technologies (we objectify our body) … Similarly, virtualization rejects a chasm between an event and the messages about it. For example one cannot separate an election from the information that press agencies distribute about it: "The messages that virtualize the

event are at the same time its prolongation; they participate in its accomplishment, its incomplete determination. They become a part of it" (Lévy, 1998, 74). Reality inevitably contains a fictional element.

Lévy's notion of virtualization as the foundational process of community (communality, communion, collectivity) is in accord with the Moebius effect as a process that entwines the interior and the exterior (an effect, anyway, already extensively analyzed by Hegel). Virtualization connects ('interfaces') the private and the public. "The transition from private to public and the reciprocal transformation from interior to exterior are attributes of virtualization that can also be analyzed from the point of view of the semiotic operator" (Lévy, 1998, 93).[31] Virtualization is a process through which we come to *share a reality* – a reality that is constituted in its basic structure, as Lévy also indicates, by an externalization of the personal and an internalization of the social. By verbalizing an emotion we 'bring it out' and share it with others, and merely by listening to music, looking at a painting or reading a poem we personalize a public item (cf. Lévy, 1998, 93); "the construction of a society takes place through a process of virtualization" (Lévy, 1998, 98).[32]

Most interesting is what Lévy discerns as the ultimate goal of virtualization, its 'engine', namely the effort to escape death and decay. "In general, virtualization is a war against fragility, pain, wear. In search of safety and control, we pursue the virtual because it leads us towards ontological regions that ordinary dangers never reach" (Lévy, 1998, 99). Although we do not necessarily always win this 'war against fragility', distancing oneself from the anxiety provoking real seems to be the 'fundamental inspiration' of the imagination that underlies virtualization.[33]

2.2. Forces of virtualization: language, 'law', and technology

The pursuit of the virtual, which at the same time constitutes humanity itself, takes place in three ways. It is no surprise that Lévy associates the first mode with man's use of signs: "Human language virtualizes real time, material objects, actual events, and ongoing situations" (Lévy, 1998, 93). In language we *exist*: we are detached from the real 'here' and the real 'now'. Language opens up an ecstatic time, a past and a future wherein we live: "Through their vital connection, the inherited, remembered, and reinterpreted past, the active present, and the hoped-for, feared, or simply imagined future are psychic, existential" (Lévy, 1998, 92). The virtualization of real time is the

[31] The prime moderator of virtualization is language itself. Lévy develops this notion towards his theory of collective intelligence, "a fully distributed intelligence that is continuously enhanced and synergized in real time" (Lévy, 1998, 122). I will leave for what it is this theory of the congruence of thought and psychic life with society, and merely use the basic ideas of subjectivation of the social and objectivation of the individual. I do not consider Lévy's thoughts on collective intelligence his most interesting work. Lévy is at his best, I think, in the solid philosophical work on virtualization, as brought forward in his *Becoming Virtual*.

[32] With this aspect of virtualization we are at the level of the *conditions of possibility* of cyberspace as a sphere of community (and it is this - Kantian - level of fantasy as a condition of experience that I want to describe): how it is possible that the ('illusory') world of online communication can create the real effect of communality.

[33] Gilbert Durand concludes in his grand work on the role of the imaginary in human existence: "[I]t is obvious that the inventory of the imaginary, from the great sacred myths to the purely aesthetic emotions, is completely oriented by its fundamental inspiration: to escape death and the vicissitudes of time … The struggle against decay, the exorcism of death and temporal decomposition: such is, in our view, the euphemising function of the imagination as a whole" (Durand, 1999, 391).

condition for remembering, telling stories, imagining, simulating etc: ways by which we can travel to other worlds.

Lévy typifies the second form of virtualization as a 'virtualization of violence'. "Ritual, religion, morality, law, economic and political regulations are social mechanisms for virtualizing relations of force, immediate impulses, instincts, desires" (Lévy, 1998, 97). All those 'rules' are about the detachment from a direct relationship or a particular situation. The law holds for anyone, independent of their personal situation; just as marriage regulates the relationship between man and woman in general. "The virtualization of relationships and immediate impulses, while it stabilizes behavior and identity, also determines specific procedures for *transforming* our relationships and personal status" (Lévy, 1998, 98). Virtualization functions as a mediation that transforms man's identity.[34]

The third process of virtualization is that of technology. The general understanding of technology – reduced here to the production of tools by Levy – considers tools as an extension of the body: the hammer as an extension of the arm etc. Lévy does not follow Marshall McLuhan's understanding of technology as an extension of the body. "A wheel is obviously not an extension of our leg but a virtualization of walking" (Lévy, 1998, 95). He emphasizes the moment of the virtualization of *action* in technology. A hammer is a virtualization of the action of striking and, following his Deleuzian inspiration, this virtualization is actualized every time a hammer is used. "The tool and the permanence of its form are the memory of the original moment of virtualization of the actual body. The tool crystallizes the virtual. Technology virtualizes not only bodies and actions, but things as well" (Lévy, 1998, 96). This actualization of the virtual can take place in different forms: I can use a hammer to demolish, to build, to kill … By conceiving technology as a process that virtualizes the original object or action in a materialized way (writing virtualizes remembering, the wing of an airplane virtualizes flying), and that can be actualized in new forms, Lévy places technology in the philosophy of heterogenesis which in his opinion characterizes humanity itself.

2.3. Language: the virtualization of the real

After Lévy's sharp insights for understanding the virtual, I will now switch over to a Lacanian understanding of virtualization. In Lacanian terms, the mediation of language is what opens us to the 'space and time of the Other'. The notion of language as the symbolic Other originates in the simple premise of Lacanian theory that man as a subject of language constitutes himself in an intersubjective relationship: the word addresses itself always to the other. "The Other is, therefore, the locus in which is constituted the I who speaks to him who hears, that which is said by the one being already the reply, the other deciding to hear it whether the one has or has not spoken" (Ec., 141). In a more general sense the Other is not merely the other person to whom one speaks but the order of symbols in which speech literally *takes place*: the Other is the *locus of speech*. This Other place is also the foundation of (fictional) truth. Lacan

[34] In order to anticipate the Lacanian version of the virtualization by means of language and the 'law', I give an example. When someone receives his (Holy) Communion his identity is transformed into a communal form. This form does not (imaginary) reflect the 'real form' of his identity, but constructs it symbolically.

considers “what I call the capital Other (*le grand Autre*), the locus of speech and, actually, the locus of truth” (S.11, 129; translation changed).[35]

The symbolic Other - for instance in the realm of language - is a domain in which a symbol functions within a network of interconnected signifiers. A symbol, unlike an image, does not represent an established meaning but gets its meaning from the relations to other signifiers in the symbolic order (cf. appendix; Zwart, 1998, 108). For the meaning of a symbol the presence or absence of elements is of decisive importance: an additional smaller bar on the standard version of the Christian cross produces a symbol (an orthodox cross) distinct from the cross with only one bar (catholic). Similarly, scientific symbolizations also work with this system of presence and absence: A+, B-, etc for the representation of blood types, the codes of DNA … (Zwart, 1998, 110-111). The symbolic 'dissects' reality by reducing it to all sorts of basic elements (signifiers) that function as a language of their own (the mathematical language of nature, the language of DNA, the language of the unconscious …). By way of such 'languages' symbolic systems *structure* the real rather than *reflecting* the real, as images pretend to do with their mimetic forms of representation.

The dimension of the Other is the scene in which real events inscribe themselves, thus virtualizing the real. This allows, for instance, for the possibility of lying (pretending), and of (unintended) 'subversion'. When I write an email to a friend that mentions both the words 'Bush' and 'dead' in no direct relation to each other (for example, I said that I do not agree with the policies of Bush, and later on describe that my cat is dead), those two words might be connected by the computers of the National Security Agency checking my emails, and interpreted as a hint for a terrorist attack. The words are inscribed in 'another scene' of a big Other (that is in this case very much focused on everything with the connotation of terrorism[36]). This illustrates the general idea that the significance of the ‘original material’ must be sought in its relationship to the Other. I mention again the example of deterritorialization that Lévy uses to illustrate virtualization as desubstantialization. One cannot conceive the meaning of an election by referring to the event that took place at a particular place and time, for its meaning constitutes itself in the information about it that influences all sorts of systems outside of its actual location: stock markets, diplomacy etc. “The message about the event is also and indissolubly a sequence in the unfolding of the event … Events and information about events exchange their identities and functions at each stage of the dialectic of signifying processes “ (Lévy, 1998, 74-75). It is this structure that Lacan has in mind with his theory that the ‘original event’ is already ‘decentered’, as it is inseparable from the information about it. The ‘information’ about the event necessarily

[35] In french it says: “le grand Aute, le lieu de la parole, virtuellement le lieu de la vérité”. In the English version ‘virtuellement’ is translated as ‘potentially’, d.i. in its second meaning of ‘virtuality’. The French adverb ‘virtuellement’ does however have a meaning that differs from the two meanings of the virtual, namely: 'actually', 'practically spoken'. So the big Other is not an order that has the potency to ground truth, but can actually be considered to do so, it is ‘as good as’ a foundation of truth. See *Écrits* p. 454, where Lacan says that the big Other is nothing but the guarantor of Good Faith. Even though we lie, the Other may assume it as true. This is exemplary for the way wherein according to Lacan the Other twists our ‘inwardness’ (in this case: our real intention) and constitutes truth. To put it in the words of Žižek (who, for his part, quotes the *X Files* motto): ‘the truth is out there’. "The Unconscious is outside, not hidden in any unfathomable depths" (Žižek, 1997, 3).

[36] The paranoid reaction of the U.S. government on a work of art of Steve Kurtz of the Critical Art Ensemble that it considers as a terorrist activity, is of course a perfect illustration of this.

takes the event into another place; the place of the 'signifying process' that Lacan calls the locus of the Other.

The present day 'paranoid' big Other that is anxious of terrorism shows that the structure of the big Other can manifest itself in different symbolic systems (of law, language, culture …). The analyses in my 'ontology of virtualization' do not primarily concern all the differences between various symbolic systems, they explore the insight that there is always a mediation of the real. We always live in a reality that is structured as a fiction. The current narrative of terrorism (and of course all the other grand narratives: communism, liberalism, capitalism) illustrates this. So:

> "But it is clear that Speech begins only with the passage from 'pretence' to the order of the signifier, and that the signifier requires another locus – the locus of the Other, the Other witness, the witness Other than any of the partners – for the Speech that it supports to be capable of lying, that is to say, of presenting itself as Truth. Thus it is from somewhere other than the Reality that it concerns that Truth derives its guarantee: it is from Speech. Just as it is from Speech that Truth receives the mark that establishes it in a fictional structure" (Ec., 306).[37]

When Lacan speaks of truth he always refers to the truth of desire. This truth is, contrary to the notion of truth as exactitude that the exact sciences aim at, related to metaphorical language: "it is with the appearance of language that the dimension of truth emerges" (Ec., 172). Because an original substitution by the signifier characterizes humanity, the 'paradox of the truth' is that there is only metaphorical truth. Metaphorical truth is what "makes a hole in knowledge" (Bergoffen, 1995, 574), and because truth is essentially metaphorical we must also validate other (artistic) discourses than those of exactitude (Bergoffen, 1995). Signification is essentially metaphorical (S. 14, 7&14-12, 1966). As long as we are in the order of meaningful language, we are in the order of substitution and the metaphor. The subject is therefore always already in the order of substitution that language introduces. This is Lacan's theory of primal repression. The subject of the signifier is virtual.[38]

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[37] In his 'Le facteur de la vérité' (1980) Derrida diagnozes that Lacan uses a very orthodox distinction between reality and truth. And in his *Positions* (1972) he states that the crucial aspect of the Lacanian thought of the *Écrits* is the identification of truth (as disclosure of being) and the word (of the Logos) (p. 115-117). The word reveals the truth of being. It would - as 'full speech' - lead to a true, authentic presence, and result in the exclusion of all sorts of simulations as unreal alienations. By contrast, I have sketched a story of Lacanian thought, wherein the focal point is the constitutive function of alienation. Nevertheless one must stress that it is especially in the later development of Lacanian thought (with its focus on the process of separation beside that of alienation, and the centrality of the notion of *jouissance*) that moves further away from a notion of 'full speech' as an 'authentic' disclosure of being. With this development towards the unrepresentable (real) core of reality Lacan's thought even gets closer to that of Derrida than one would assume at first sight (cf. Nusselder, 2003). Simulation is then certainly not a negative notion.

[38] With his theory that considers thoughts as signs Peirce reaches a similar conclusion, as Peter Skagestad shows: "Peirce never denied the existence of consciousness, and he did not deny that we may have introspective knowledge of our conscious mental states, but he simply did not regard cognition as consisting of such conscious states. Cognition consists in the manipulation of signs which may be externally embodied; as each sign is what it is by virtue of its possible later interpretations - i.e. virtually - so the mind itself is virtual. As Peirce put it in one of his classic 1868 articles in the Journal of Speculative Philosophy: "Finally, no present actual thought (which is a mere feeling) has any meaning, any intellectual value; for this lies not in what is actually thought, but in what this thought may be connected with in representation by subsequent thoughts; so that the meaning of a thought is altogether

2.3.1. The retroaction of 'real time'

Through the inscription of 'events' in the locus of the Other they acquire a sigificance that the subject does not know and cannot foresee. An artist being a terrorist (see note 8): this shows once more that the unconscious as a symbolic structure is 'out there'; it ex-sists - as Lacan says in his *Télévision* - only in a discourse (Lacan, 1973, 26). It is for that reason that the locus of the Other is Lacan's translation of the Freudian notion of the unconscious as 'another scene'. The Other is also the place that installs the ecstatic dimensions of time: past, present and future. Tying in with Lévy's description of the virtualization of 'real time', language thus opens up a field of future possibilities. By linguistic articulation it functions as a medium that can make events from the past re-appear; it is a sort of virtual memory of the past. Lacan however develops a notion of time that tries to do away with the view of time as a linear development. Like the future, the past is characterized by openness. It is the virtual subject of language (the 'subject of the signifier') that 'determines' how the past re-appears. The 'subject of the signifier' (re)structures the real (of the past). Lacan's exposition of the notion of temporality comes down to the idea that who someone was in the past depends on how he conceives of himself in the light of present experiences and future possibilities (and there is therefore no 'real past'). A separation from a lover may thus change from a painful loss into a liberation. It is all about the way that someone currently assumes, or structures by means of speech, his anterior states in the light of the future: "History is not the past. History is the past in sofar as it is historcised in the present" (S.1, 12).[39]

This notion of 'historization' or restructuring makes the psychological symptom a 'trace' which acquires its content or its meaning only in the future; in the 'second time', the time of its articulation. With this notion of retroaction ('après coup') Lacan translates Freud's notion of the 'Nachträglichkeit' of the symptom. For Freud it is not the event itself that is traumatic, but its conscious reception, or recording, in the psychic system. Also in his theory of dreams he stresses the importance of this 'secondary time'. The secondary elaboration restructures the 'original' and heterogeneous dream elements (preconscious day remnants, unconscious material).[40] For there is an intellectual system in us that demands unity, coherence and clarity and thus restructures incomprehensible material into a new 'meaning'. It is only to the (fictive) truth of this restructured material that we have access. Or, as Derrida points out in his reading of Freud, when

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something virtual. ... At no instant in my state of mind is there cognition or representation, but in the relation of my states of mind at different instants there is". In a letter to the editor, William T. Harris, Peirce elaborated: "I do not say that we are ignorant of our states of mind. What I say is that the mind is virtual, not in a series of moments, not capable of existing except in a space of time - nothing in so far as it is at any one moment." (Peter Skagestad, 'Peirce, Virtuality, and Semiotics', http://www.bu.edu/wcp/Papers/Cogn/CognSkag.htm)

[39] Cf. for this topic Lacan's pivotal 'Discours de Rome' (1953): 'The Function and Field of Speech and Language in Psychoanalysis' (Ec., 30-113). Also in *The Language of the Self. The Function of Language in Psychoanalysis*. Translated with notes and commentary by Anthony Wilden (Baltimore/London: Johns Hopkins University Press, 1968).

[40] "The secondary elaboration is an a posteriori reworking which takes place in the successive transformations which we impose on the story of the dream once we are awake. This consists essentially in restoring a minimum of order and coherence to the raw material handed over by the unconscious mechanism of displacement, condensation and symbolism, and in imposing on this heterogeneous assortment a façade, a scenario, which gives it relative coherence and continuity" (Laplanche & Pontalis, 1986, 21).

there is no origin (of meaning, memory, subjectivity), the repetition of the 'origin' itself is original.[41]

2.4. 'Law': the virtualization of 'natural forces'

Representing reality in all sorts of discursive structures, we are necessarily 'subjected' to the laws that govern these discourses. Games may illustrate this. When I play a game, that is to say when I represent myself as a certain player of a game, I am inescapably submitted to the rules that determine how the game should be played: how one should interact etc. Lacan considers reality, in its most fundamental form, to also be a 'game' (shown by his saying that the principle of reality is the principle of collective fantasy). Language composes the fabric of its general discourse. Therefore the law that organizes language is basic: the law of the signifier. "The law is the set of universal principles which makes social existence possible, the structures that govern all forms of social exchange" (Evans, 1996, 98). Those principles that organize the human world precede the individual and determine the relationships between people; they make them independent of the "fluctuation in the relations of force" (Lévy, 1998, 97). Therefore the law corresponds to Lévy's notion of the contract as a virtualization of violence: it virtualizes 'brute reality'.

The unconscious as the field of the Other 're-shapes' nature by means of structures that Lacan cannot but help formulate in terms of the laws of the signifier.

> "Before any experience, before any individual deduction, even before those collective experiences that may be related only to social needs are inscribed in it, something organizes this field, inscribes its initial lines of force … Before strictly human relations are established, certain relations have already been determined. They are taken from whatever nature may offer as supports, supports that are arranged in themes of opposition. Nature provides – I must use the word – signifiers, and these signifiers organize human relations in a creative way, providing them with structures and shaping them" (S.11, 20).

The relation to the Other, or the symbolic order, causes an entwining of Inside and Outside.

As man interiorizes the law as his ego-ideal (the ideals, values etc of his environment, of significant others, that the individual identifies with), the social Outside inevitably becomes part of the subject's Inside world. With regards to the question of fantasy this means that the Inside (the fantasmatic images supposedly belonging to our most intimate self) inevitably consists of elements that come from the Outside. Furthermore, when we want to express our deepest fantasies, we necessarily place them in a signifying chain that 'annihilates' their 'original meaning'. When we want to access our fantasies, we cannot avoid 'deconstructing' them: the law (of the signifier) is an inevitable moderator. Lacan's analyses of the unconscious fantasy contains the crucial

[41] McQuire uses this theory to understand the current breakdown of traditional oppositions (subjective/objective; interiority of living memory/exteriority of artificial memory) in technological forms of registration and memory (the 'camera model'): '[R]emembering' something involves less the repetition of a stable past than the reinscription of the putative origin. The Freudian logic of the 'deferred effect' suggests that each repetition must be its own origin, but, instead of happening just once, the origin is itself a weave of differences which inceasantly point elsewhere. From this perspective, memory would name the enigmatic event of originary repetition: a repetition which - if only by dint of repeating - differs from what it repeats" (McQuire, 1998, 172).

notion that fantasy is unconscious because it concerns "an image set to work in the signifying structure".

The constitutive role of the relation to the Other preempts all conceptions of the unconscious as merely a 'dark inside' of the subject. Therefore its representation as a cellar, or even as a cave by way of allusion to Plato, is not a good comparison (S.11, 187). The unconscious straddles the interface of the Inside and the Outside, where the particular and the general or the individual and the social meet. As we have seen, this interfacing is of crucial importance for virtualization according to Lévy.

> "the unconscious, which I represent to you as that which is inside the subject, but which can be realized only outside, that is to say, in that locus of the Other in which alone it may assume its status" (S.11, 147).

For Lacan the unconscious is nothing without the word: it must come into existence by means of its articulation. The subject must come into existence at the locus of the Other; a possible Lacanian translation of Freud's adage that where the unconscious Id was, the I must become ('Wo Es war, soll Ich werden'). In stressing the word 'must' it becomes clear that in Lacanian theory the subject necessarily has to externalize itself.

3. Interface technologies and the virtualization of the real

3.1. Technological fiction: invocational media

Several authors stress the intricacy of (the mediation by) language and technological mediatization. De Kerckhove, for example, formulates it succinctly in his chapter on 'The Origins of Technology in Language' (De Kerckhove, 1997, 21-35). His predecessor in Toronto, Marshall McLuhan, refers to such a philosophy of technology in the work of Henri Bergson: "It is the extension of man in speech that enables intellect to detach itself from the vastly wider reality. Without language, Bergson suggests, human intelligence would have remained totally involved in the objects of its attention … Bergson argues in *Creative Evolution* that even consciousness is an extension of man that dims the bliss of union in the collective unconscious" (McLuhan, 1994, 79). As an extension of man, language is the first technology in that it enables man to consciously grasp the world beyond the objects of his attention: language implies a mediation of the world. All sorts of technologies bring this expansion of man's possibilities in space and time even further (mediatization). So in general one can say that technology, just like language as the first technology, brings about 'space-time distanciation': it detaches us from the here and now. In his theory of mediatization John Thompson stresses this intricacy, as both kinds of media are about the transmission of symbolic forms (it is not very problematic for him to name this symbolic communication as his analysis concerns the modernity of mass communication, and not so much the 'postmodernity' of information technologies that put the symbolical - further - under pressure): "The transmission of a symbolic form necessarily involves the detachment, to some extent, of this form from the original context of its production: it is distanced from this context, both spatially and temporally, and inserted into new contexts which are located at different times and places" (Thompson, 1990, 13, cited in Crang et al, 1999, 10).[42] This

[42] Harold Innis was the first to systematically address the issue of how electronic media affect our perception of place and time, and with that, consciousness. His critical approach to the technological

is what Lévy considers to be virtualization. Virtual technologies are - more than previous media like photography or film that it 'remediates'- in a especially close connection to (spoken) language. For it not only opens up a world that we look at, but a world in which we can do something; virtual technologies contain performative environments.

Michelle Kendrick also brings forward that we always already inhabited a technological world, just as Lacanian theory states that we always already inhabit the world of language. Whereas Lacan states that there is no subject outside language, she states that there is no subject outside technology. She uses the term 'technological real' to indicate that "technology has always been an affective agent in subjectivity" (Kendrick, 1996, 144).[43] Applying the notion of technology in a broad sense, she states "that subjectivity is always in the process of being reconstructed by the technologies – material and semiotic – which it purports merely to manipulate. In this respect, any subjectivity or identity – any sense of a pretechnological reality or a reality distinct from or prior to technological interventions – can only be imaginary" (Kendrick, 1996, 144). Because of the constitutive function of both linguistic mediation and technological mediatization (language as a technology, technology as a language), the notion of a self-evident real outside those media, and separate from them, is a purely imaginary illusion. I will illustrate this virtualization by means of information technologies with a few examples.

"No one has ever seen a molecule". This quote heads an article about one of the Netherland's top scientists in molecular dynamics.[44] Heinz Pagels in his book *The Dream of Reason. The Computer and the Rise of the Sciences of Complexity* (1988) expands this topic to all of the computational sciences. Why is it, he asks, that we make a model of reality and represent it as a myth, a metaphor or a scientific theory? Why does the mind reform its experiences in terms of symbols? According to Pagels a good simulation (a religious myth or a scientific theory) gives us the feeling of control over our experiences. With the appropriation (symbolic representation) comes the realization that we have denied the immediacy of reality (Pagels, 1988, 88). This 'immediacy of reality' (what I would call the real) is what we cannot grasp, or see (we cannot see atoms). It is, so to speak, what 'we have lost' (and the example of the atoms clarifies that - applied to the scientific enterprise - we have never possessed this ' immediate sight', although we *try to simulate this immediacy*).[45]

We might recall here the earlier description of virtual environments as 'objectified metaphors'. And Alexandre Leupin writes: "The technology of the Internet confirms Ferdinand de Saussure's discovery that language, taken on the level of signifiers, is only a series of relative and negative differentials, which can be written

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conquering of space and time, the way technology effects social control and causes economic and democratic inequalities, was succeeded by the work of his fellow Canadian Marshall McLuhan. His far less critical analysis claim that electronic media can 'abolish space and time' and make of the world a 'global village'. The British sociologists Anthony Giddens and John Thompson put more emphasis on social structures in their analysis of the intricacy of media and the perception of space and time.

[43] In a Lacanian terminology this use of the notion 'real' is very disturbing. This intermingling of subjectivity and (language as) technology is exactly what Lacan calls reality.

[44] Wilfred van Gunsteren (professor Informational Chemics, E.T.H. Zürich) in *NRC Handelsblad*, 17-11-2001.

[45] According to Debra Bergoffen the West expresses its grief over the lost object of its passion for knowledge (the Thing: the void around which all the symbolizations circle) by priviliging the discourses of the sciences (Bergoffen, 1995, 576).

minimally as [0,1]: from the outset language was already digital". The computerized virtual world that those two basic elements can create is "a continual prolongation of what we have always termed cosmos, i.e. the linguistic fiction of our perceptions … In this way, the Internet does not constitute an epistemological break" (Leupin, 2000). Also Turkle's analysis that cyberspace can be a good medium for 'finding out who I am' considers cyberspace to be a virtual space wherein one can explore the real (me). She draws a parallel between online personae and the self that emerges in a psychoanalytic encounter: both are significantly virtual, either constructed within the space of analysis or in the virtual space of online role-playing communities (cf. Turkle, 1995, 256). In general, one can consider cyberspace as a realm of interconnected signifiers, as a reality made out of fiction. It is for instance a well-known fact that online communication (especially in Internet Relay Chat and Usenet-newsgroups) has its own rules and signifiers: (_)] ☺. In a more visual form the narrative structures that virtualize reality can be found in computer games and Virtual Worlds. So from a Lacanian perspective cyberspace is a realm whose 'truth' does not find its foundation in reality, but in the signifier. Truth has the structure of a fiction. "Cyberspace can be seen as an extension, some might say an inevitable extension, of our age-old capacity and need to dwell in fiction" (Benedikt, 1994, 6). So when one focuses on the fictitious structure of reality, that is to say on the fact that discourses, narratives etc (in general: signifiers) structure reality, than cyberspace seems to be nothing else than a realm of technologically produced fictions, that does not differ fundamentally from 'reality as we know it'.

The matter with computers is that they objectify into a material form the representations, metaphors or symbolizations that have always mediated man's perception of reality. Computers do not just 'lead us away from reality into fictionality' (we are always already in a fictitious perspective towards the real); they may create *new and different (virtual) perspectives*. As Pagels brings forward that the computational point of view of physical processes (the material world and the dynamic processes in it are considered to be computers) creates a new perspective that unifies science in a different way (Pagels, 1988, 45). In a Virtual Reality environment we can stand inside a molecule and observe it from the inside. With computers we can extend the calculability of natural laws that define the development of systems (the brain, the solar system, quantum particles …). In tele-presence systems we can look through 'distant eyes'.

Since computers also present the real (the 'real me', the atoms) by means of signifiers, one may hold that, at a psychological level, computers contain an aspect of invocation or incantation. By their very technical structure computers create a world on the screen that mediates a 'pre-technological reality' (Kendrick), that I call the real. As such they 'put a spell' on the world. Therefore many researchers point at the resemblance between computers and magic (particularly Davis, 1993). They allow us to handle or manage a real world behind the screen that we otherwise could not deal with (because of its complexity, its non-existence, because it is heavily emotionally charged …). Because of this basic technical feature Chesher calls computers invocational media: "Computers are invocational media. Using a computer is related to speech more than to travel. Data are invoked by a command, a call or a click on an icon. 'Invocation' is a kind of speech act by which a supplicant calls to a greater power for immediate aid. Traditionally invocation involves magic or a deity, but it is a useful metaphor for how computers allow people to 'call up' data'" (Chesher, 83-84).

3.2. The digital revolution: from analogue to digital representations, from object to interface

Since this study is focused on *information* technologies, the question arises whether the description of technology that I have given up to now also suits the situation in which technologies operate on information. For there is the pitfall that we might still consider technology to be a sort of tool that transforms *nature*. Information technologies, however, do not operate on (material) nature but on ('immaterial'?) information, and might show that the usual conception of technology is too restrictive. At the very least, by this (postmodern) replacement of nature by information, it questions the modernist thinking (about technology) in terms of an univocal opposition of nature and culture. The confusion of the natural and the artificial brings us in 'the postmodern condition'. We might even be said to be living in a 'technological universe' (Jacques Ellul) because of a thoroughgoing replacement of the natural by the technological. So, what is the importance of the fact that we are dealing with information technologies? This brings us to the (philosophical) question on the difference between analogue and digital representation.

Shouldn't this be a question for engineers? That is to say, can't this difference be accounted for in a technical way? Not really. "The distinction between digital and analogue representation is philosophical before it is technical" (Chesher, 1997, 86). The difference is not fully explicable in a *quantitative* manner (e.g. I see reality better with my virtual reality goggles on), because it has a *qualitative* aspect (I see a different reality). The Kantian critique of naïve realism remains crucial today. As digitization highlights the issue that reality is not an objective given, our investigation comes to the matter of analyzing how reality consists of a framing of things and how technologies organize such windows on the world. [46]

Let me now give a simple example to illustrate the question of analogy. When I see a large mushroom cloud above a city (on television, on a drawing, through the screen of my cockpit, or on the screen of my computer: in all cases it appears on a 'screen') not only do I know there was an explosion (there is a causal relation, it is an index as Peirce would say) but I also know that there has been a huge explosion. Analogue representations encode or represent their message in a proportional or *continuous* degree (cf. Lévy, 2001, 33). They are based on this proportionality between object and representation, matter and form, sender and receiver. In its technical

[46] The objects of cyberspace do not exist as such. They would not appear as they do without the *element of construction by the subject that interacts with them*. They do not exist 'in the real'. The real of the cyber-object is rather its code. Cyberspace is therefore conceivable in this dimension of a reality without 'real' objects, by proceeding from Kantian philosophy in which it is the human subject that positions the (sensible) *impressions* of the objects in the dimensions of space and time (I will elaborate on the question of space in chapter three). In order to understand the 'real' objects we cannot simply address the 'things as they are', because we ourselves also constitute them. Because of this Kantian Copernican revolution a philosophical analysis of the digitized object consists in an analysis of the conditions of possibility of the appearance of the object. "[O]ne of the most significant consequences of Kant's Copernican revolution is that 'first-order talk about objects is replaced by second-order talk about the conception of an object, and the conditions of its conception (epistemic conditions). The meaning of 'object' is thus to be determined by an analysis of these conditions'" (Stern, 1990, 18). The so-called 'Toronto school' in media studies (McLuhan, Havelock, Ong, De Kerckhove, a.o.) analyzes the mode in which media determine our experience of reality in such a Kantian way. I will also use this transcendental approach which focuses less on concrete descriptions of specific cases than on the way we conceive of an object by means of the conditions of the techno-fantasmatic screen. Such a 'philosophical' analysis is less concerned with the content than the structure of appearance.

manifestations the analogue representation implies that the object that emanates the signal has the same, or similar, form as itself. “An analogue code represents what it signifies by establishing a relationship of parallel degree … The signal is analogous to what it is representing … Where analogue involves a conversion of form, digital always involves encoding and decoding “ (Chesher, 1997, 86). An example of an analogue ‘conversion of form’ is the vinyl record. Its structure is similar to the structure of the sound volume it generates: the deeper the groove, the higher the volume. The analogue representation is thus characterized by a proportionality between the representation and that what it represents. And the analogue sign system uses continuous, and not separated, units (the analogue clock illustrates this: it represents time without intervals, unlike the digital clock). But this does not imply *per se* that they have a figurative resemblance with what they represent. For what would time look like? And a curve that represents someone's heartbeat naturally does not look like the beating of a heart

The first crucial characteristic of the ‘digital revolution’ is the analogue to digital conversion called digitization. It is a conversion of continuous data into a numerical representation. That is to say that all sorts of objects are encoded into the 'language' of zeros and ones that the digital information consists of. This 'language' has different units for different sorts of media. Images are encoded as pixels, sounds as voxels, texts as numbers and letters, graphical representations as polygons, and scripts or sets of algorithms are units of movements. [47] As the objects are thus transformed into the digital language of the computer, they become easily manipulable, they can be transported with the speed of light, and endlessly copied. The object that is supposed to be the unity behind the different actualizations that we see on the computer screen then becomes a purely virtual object. Although the actualizations do approach to a certain extent the encoded object, they are never identical to it. The encoded object loses its true form in representation. For what is supposed to be the right form of a 'package' of zeros and ones? The perceptible, or phenomenal, properties and characteristics as such are not present in the encoded object. The appearance of the object depends on the software of the user (do you use Internet Explorer or Netscape Navigator?), its configurations and the manipulations by the user.

Digital representation breaks with the principles of continuity, proportionality and similarity that characterize analogy. The similarity of form between object and representation is no longer the basis of its encoding, but a translation of the object into numbers that can be expressed in a binary language. This difference has “far-reaching consequences for our visual culture” (Mitchell, 1994, 4). The computer represents the objects as data that can appear in various forms; *it substitutes every constant with a variable!* (cf. Manovich, 2001, 43). Manovich designates variability as the crucial aspect of the new media object (Manovich, 2001, 36-45). Because the ‘digital revolution’ recasts all kinds of representational systems as digital information, there is a similarity at the level of binary coding. Since different media all have the same basic structure one can also speak of a ‘multimedia revolution’ (cf. Lunenberg, 1999, xvi)

One must not forget that the digital object does have a previous history. Earlier the electronic object in media such as radio and television caused an important shift

[47] Not many sorts of information(processing) resist such a transformation into digital information Scientists are even developing technologies for the digitization of the human mind: downloading it onto a computer. In addition to the fundamental questions this raises, there is still, because of the capabilities of computer memory, a technical limit to this undertaking that will not be overcome for at least a few decades. However, the *promise* of an outright digital mind is there.

from the material object to an electronic signal, which is only radicalized with the digital object. “In contrast to a material object, the electronic object is essentially mutable. This mutability of electronic media is just one step away from the “variability” of new media” (Manovich, 2001, 133). The present state of the new media object is ‘liquid’; it does not have a fixed form or identity. Data can appear in different forms: just imagine what digital photography can do with the 'real' image. Digitization confronts us with the notion of a radical break with the principle of analogy as a ‘conversion of form’, for the very reason of its breaking loose of the *identity of form*. The images that I see on my computer screen, for instance, are not necessarily similar to the ‘real object’ because for the computer the ‘real’ consists of digital information that can be stored, mutated, controlled and accessed by the user at his will. Digital imagers, for example, accordingly “give meaning and value to computational ready-mades by appropriation, transformation, reprocessing, and recombination; we have entered the age of electrobricolage” (Mitchell, 1994, 7).

Crucial is the notion that the *object* consists of *data*. And these data can appear in different *form*s, i.e. they can appear via a number of different *interfaces*. Therefore Manovich states:

> “A new media object can be defined as one or more interfaces to a multimedia database” (Manovich, 2001, 37).

3.3. Digitization and the mind's schemes of representation

I will indicate briefly how the process of digitization modifies the two basic coordinates of the mind's representation of reality: time and space. As Jeremy Rifkin states in his book *Time Wars*, the way in which we imagine, explain and use time mediates all our perceptions of ourselves and the world and is hence constitutive of our identity and the culture we live in (Rifkin, 1987, 1). Digitization of time can change the way we experience time, the way we relate to the past and to the future. Programming can determine in advance the sequence, duration and tempo of an event: automated machinery automatically instructs us how to make a product or when to deliver a service. Because human mediation (modification, error, caprice) dissolves there is a basically different design of time than with the schedule, the plan or the project, which are our 'traditional scheme's for our relation to the future (cf. Rifkin, 1987, 98). Programs also eliminate the user from his subjective experience of the past - which he usually takes as a source and guide (a 'scheme') for future actions - and make him rely more on data than on personal recollections (Rifkin, 1987, 100). Digitization of time therefore means a (further) removal from the object of our ‘natural’ or ‘immediate’ experience. This digitization of the time scale is typical of the changed relation towards the surrounding world that the computer causes. Whereas the clock, as an analogue representation of time, refers to the circular time defined by the earth's orbit, the digital time scale is no longer bound to such a circular reference. With the computer we are less bound to the space-time of our direct environment, as we can be virtually present in different time zones (me, a European, being at night virtually present in an Australian day). Time is less experienced as temporality with its (analogue) representations than as speed ('virtual immediacy').

With respect to space, cyberspace can actually bring a physical elsewhere in the physical presence of the user, and offer the user the possibility of actually moving and acting in that virtual elsewhere. This is what we call 'telepresence' (such as seeing

through the eyes of a robot[48]), which highlights the question of what is real and what is virtual (am I here - at the place where I sit, or am I there - at the place from which I see?). The example of telepresence, wherein cyberspace functions as a medium to let the user perceive in a different space, shows that digitization can radically cause a (further) discontinuity between man and his surrounding world, as well as between his body and his mind.[49] What we call cyberspace is a 'realization' of this experience in a parallel space wherein the continuity with natural space has almost dissolved (we are not subjected to the laws of gravity, to our physical position, to physical distances …). In the case of web cams, for instance, digital technologies work to annul, undo (or, philosophically, negate?) the distances that separate the user from the place (resort, or home) where he wants to be. They virtualize those places, and transform them into 'non-places' that are extracted from their geographical, historical, cultural and linguistic contexts (cf. Simons, 2002, 302). Therefore a standard fantasy imagines cyberspace as a space of surpassing (transcending) all the old limits.

Then the major question is whether we must understand this as a breaking free from the confines of natural reality, as liberation. Will cyberspace finally realize our Gnostic desire for a departure of our earthly and bodily existence, that is so characteristic of all 'technological dreams' (cf. Romanyshyn, 1989, 20)?[50] It seems that cyberspace leads to a 'time-space compression', wherein the schemes with which we organize reality (the physical space-time that we exist in) loose their firm grip on our experience of reality. Time and space seem to be dimensions of the world that we can compress by means of the computer: they loose their significance. Nevertheless, this may be only one side of the story. Cyberspace as a medium of 'immediacy' seems to transport us immediately to another space-time ("Hang on … teleporting", as this transportation is described and visualized in the virtual 'World3D' on the Internet). And it may give us the impression that all information is present in it, and can - or must be - withdrawable on demand, without notice. However, this 'immediacy' also causes time and space to become more important, they become increasingly critical dimensions. For we don't want to wait for a file to be downloaded. Transportation must be done in real time, without delay. This duplicity of real time interaction shows that it is this quest for

[48] See for instance: http://www.telepresence.com/telepresence-research/index.html

[49] This discontinuity or conflict between body and mind can, as Michael Heim notices become pathological when it "breaks the harmony between the biological body and the cyberbody", which occurs for instance with soldiers who train in flight simulators. Simulator sickness is a well-known phenomenon. "The high speed dynamics and aggressive tempo of cyberspace brings with it a disharmony between the earth-rooted biological self and the digitally trained mind. The person is split between personal experience based on computer life and personal experience based on felt bodily awareness" (Heim, 1998, 172).

[50] In order not to address in a naïve way the question whether cyberspace realizes our (Gnostic) desire, we must not brush aside the abovementioned Kantian 'Copernican revolution' that showed that the human subject always already constructs 'natural reality'. A conception of the 'digital revolution' as merely a breaking free from the chains of natural reality might be naïve, because in a Kantian – and as we will see, even more so in a Lacanian – approach this escape goes along with the breaking of the frames of our experience of reality. For this reason, a philosophical understanding of the influence of digital technologies on our conception of reality must bring together two 'revolutions' in the relation of the human subject towards the object of his representations: the Kantian and the 'digital revolution'. Both involve a radical questioning of a natural world of references: the Kantian revolution questions it mainly because of the constitutive feature of the subject, the digital revolution mainly because of the assembled feature of the (digitized) object.

immediacy that challenges the 'traditional' experience of reality that is based on *delay* (cf. Derrida, 1987).[51]

3.4. Computer virtual reality: from insight to liberation?

The computer does not cause a 'paradigm shift'. It is an objectification of otherwise subjective processes that adjust - but not necessarily adapt - man's relation to the outside world. It seems to give us a clearer insight into the process of self-construction. The virtual world to which the interface leads us shows in a 'materialized' way that our 'real reality' is also already virtualized by different systems of codification. Analogous to Vivian Sobchak's insight that cinema for the first time gives us a good look at the subjective structure of our vision, computer virtual reality also exposes our subjectivity but only more so.

> "In its pre-electronic state and original materiality, however, the cinematic mechanically projects and makes visible for the very first time not just the objective world, but the very structure and process of subjective, embodied vision - hitherto only directly available to human beings as that invisible and private structure we each experience as "my own." That is, the materiality of the cinematic gives us concrete and empirical insight and makes objectively visible the reversible, dialectical, and social nature of our own subjective vision." (Sobchak, 1994, 96).

Virtual Reality may bring us to the very heart of "that invisible and private structure we each experience as "my own"". On the computer screen the process of subjectivation by way of the law may become explicit. For when I expect to enter cyberspace without any constraint (for I am after all alone behind my computer) the difficulties of 'direct expression' become all the more noticeable: I'm confronted with 'Wizards' that try to socialize my behavior (personifications of the law), I feel ashamed or guilty to say what I want to say (internalization of the law), I must make the effort of typing in words in order to make myself heard in a chat room (the law of the signifier) … The computer interface thus seems to endorse Sobchak's thesis that technologies can make the structures of our subjectivity more visible. Or as McLuhan puts it: new media may lead to some sort of 'consciousness of the unconscious'.

Because of this enhanced insight into the structures that form us, we might be able to take greater distance from those structures and even play with them. It is for that reason that a common vision of cyberspace connects it intimately with perversion (cf. Žižek, 1999a). In perversion there is alongside the normal subject (that recognizes the law) a second subject that does not recognize the law and disavows the renouncements that the law demands (castration). In perversion the conventionality of the law is attacked precisely because of its conventionality (cf. Verhaeghe, 1994, 187). So, if I know that the law is a convention, I can play with it within my self-built world or moral. And this is what happens in cyberspace, where one can build such alternative, virtual worlds. Having the conventionality of law in view also allows for a transgression of the law without feelings of guilt - an absence of guilt that characterizes perversion. Most of

[51] In his 'Speculations on Freud', from his book *The post card: from Socrates to Freud and beyond* (1987), Derrida advances the fundamental thesis that, in Freudian psychoanalysis, a *detour* ('Umweg') is the efficacy of the psychic apparatus, necessary in order to avoid the destructive and deadly limits of pure enjoyment and pure reality.

the players of cybersex don't consider it an act of adultery, but rather 'an innocent game' that doesn't affect their 'real-life situation'. Fanatic players of aggressive and violent (online) games use the same arguments against people who suggest that playing those games can lead to more aggression in real life. They assert that because they know perfectly that it is nothing more than just a game it does not influence their behavior. And indeed, they are almost always very decent young people in real life.

Lacan claims that each and everyone of us is either in the neurotic position ('Versagung': giving up enjoyment, and compensating for it in an imaginary manner), the perverse position ('Verleugnung': disavowing the lack of enjoyment, and playing the game of enjoyment as a reality, just with another set of rules) or the psychotic position ('Verwerfung': rejecting that there is a lack of enjoyment and fully 'enjoying' the imaginary world as reality itself). The subject of cyberspace seems to come closest to the perverse position, where the double moral standard is practiced perfectly.

When everything and everyone is controlled or constituted by information codes, and humans can program information codes, the idea may arise that humans can control everything, including their own self. Considered in a modernistic sense this implies the *control* of the laws of nature. Cyberspace, being the most advanced form of the technological enterprise, offers itself - as Markley brings forward - as the logical 'telos' of technological progress. For its symbolic coherence cyberspace depends on the narrative logic of progress: it is the completion of our craving for transcendence (Markley, 1996, 6). Cyberspace must thus be situated in the Enlightenment project in which science and technology (must) contribute to economical and political freedom (cf. Ess, 1994, 234).

However, insight and playful management of the processes of self-construction might also evoke the postmodern idea that we ourselves can creatively *remodel* the law. When subjectivity is a matter of construction, why then do we not construct ourselves? This leads to the liberating, postmodern model of cyberspace as a realm of free self-construction where the 'old paternal' law no longer goes. In its extreme form this leads to the 'Humpty Dumpty complex' (see appendix) wherein someone may come to the (psychotic) illusion that he himself can determine the meaning of his words. Cyberspace promises us to lead us to our 'true self' (my online self freed from the law), to true democracy (wherein everybody participates immediately via his mouse). It may offer a possibility to remodel the laws of culture and society that subject us. Or as Ken Hillis analyzes, technology radicalizes the cultural 'will' (that also Durand and Pagels stress) to escape the real. "Culture offers an ironic form of security that denies the real … all cultures facilitate this "escape" from the body and its needs and actions involving food, sex, and death … If culture offers a way to deny the contingency of the real, as part of culture, technology is now being positioned to suggest an alternative to the natural world" (Hillis, 1999, xvi-xvii). Hans Moravec's work most clearly illustrates these high hopes of technology, since he considers the computer revolution a breakthrough that can both liberate the human mind and human culture (Moravec, 1988, 4).

4. Interface technologies and the question of representation

4.1. Spaces of representation, or simulated spaces?

In a Cartesian conception, the body is merely a natural, mechanical thing characterized by extension in physical space. The mind, on the other hand, is the instance of true

thought that exists in a virtual space of representation (as the mind does not have an extension one could situate it in 'spaceless space' - a term Manovich uses to describe cyberspace). From this duplicity of physical and of virtual space the classical notion of representation, in which physical space finds its true form in the virtual space of representation, arises. However, in the age of information it seems reasonable to question whether there actually is such a sharp distinction between physical and virtual space. For instance, do all sorts of imaging technologies not blur the distinction between the body as a physical extension and as a virtual representation? In imaging technologies the body parts are not presented (by drawings, formulas, and calculations etc that abstract it from physical space) in a - second - space of representation, but simulated in a space that does not seem to be different from physical space.

So do information technologies actually generate a 'revolutionary' space of representation? Do they blur the difference between physical and virtual space? Cyberspace has been interpreted in both ways. On the one hand, encircled by a great deal of high-tech rhetoric, as a (non-physical) space inhabited by immaterial data-objects, in which the user can wander around as a bodiless intelligence. As a pure mind of symbolical representation he would be liberated from all the limitations imposed by physical space. In this sense, it would realize the Platonic desire for access to the immaterial realm of Ideas, and Descartes' ideal of disengaged knowledge. On the other hand, cyberspace has also been interpreted as a very compelling and fascinating virtual space that continues, and sometimes even seems to replace, physical space. Thus we would enter the culture of 'real virtuality' "in which reality itself (that is, people's material/symbolic existence) is entirely captured, fully immersed in the setting of a virtual image, in the world of make believe, in which appearances are not just on the screen through which experience is communicated, but they become the experience" (Castells, 1998, 373) In the culture of 'real virtuality' the strict difference between physical and virtual space is hard to maintain. Virtual and physical spaces appear to blend, by which we are in accord with Manovich clearly in the 'mediated environment' of the simulation tradition, and not in the double space of the representation tradition. He distinguishes the tradition of representation (Renaissance painting) from that of simulation (frescoes, mosaics, wall paintings, wax museums, sculptures on a human scale):

> "The simulation tradition aims to blend virtual and physical spaces rather than to separate them. Therefore, the two spaces have the same scale (p. 112) … if in the simulation tradition, the spectator exists in a single coherent space – the physical space and the virtual space that continues it – in the representational tradition, the spectator has a double identity. She simultaneously exists in the physical space and in the space of representation" (Manovich, 1999, 113).

The computer is a simulation machine that presents data as objects in a virtual environment. In her influential work *Life on the Screen* (1995) Sherry Turkle shows that the culture that surrounds the personal computer evolved from a notion similar to calculation towards one more like simulation.[52] Interacting and playing with the

[52] What Turkle calls simulation corresponds more to Doel and Clark's fourth model of the relationship between the real and the virtual (see § 1.3) of the simulacrum, d.i. of continuously new formations of reality that are not modeled according to some 'true' form of the real, than to their model of the simulation, which stands for nothing but a false copy of the real. It shows that different interpretations of

computer increasingly replaces the use of the computer as a program that follow strict rules. The 1990's mark an especially strong shift from calculation towards 'bricoloage'. Turkle's analysis distinguishes a clear 'progress' from the modernist culture of calculation towards the postmodern culture of simulation (Turkle, 1995, 20). The computer would therefore evolve from an extension of (mental) functions and capabilities into a medium in and with which to interact. Another computer theorist, Brenda Laurel, makes a similar distinction. "Human-computer activity may be divided into two broad categories: productive and experiential" (Laurel, 1993, 22). In productive activities, such as word processing, one uses the computer to achieve certain outcomes 'in the real world' that are beyond the experience of the activity itself. In experiential activities, such as computer games, the computer is an 'environment' for experiencing a certain activity. Meredith Bricken describes this paradigm shift between traditional interface design and the design of virtual worlds as a shift from user to participant. "Among software developers, the term *user* refers to the generic person who, at the end of the programming and interface design process, receives a software application geared to "average" human functioning. *Participants* are active agents" (Bricken, 1994, 366). Rather than being environments for a *spectator* cyber spaces may well be for a *user or participant*. In many cases they are above all performative spaces for someone to act in, before they are representational spaces. Because of this, the question whether they are true or adequate representations of the real-life models is not always appropriate (cf. Simons, 2002, 246). In the culture of 'real virtuality' the distinction between performative and representational spaces becomes increasingly blurred – to say the least. It is for this reason that simulated environments are often compared to games: both are fictive spaces for the performance of real acts. That is why, in my opinion, the computerized simulated environments resemble the 'intermediary' space of fantasy. For fantasy is also the interface between the real and the fictional.

This 'intermediary' space may become such a natural habitat for us that we enter a post-modern culture of simulation. This is a conclusion that Turkle draws from technological developments. Because we are already so accustomed to interfacing with technological media, we take the simulated images at face value:

> "*We have learned to take things at interface value*. We are moving toward a culture of simulation in which people are increasingly comfortable with substituting representations of reality for the real" (Turkle, 1995, 23)

Information technologies radicalize the process of 'substitutiting' the (physical) object with a (digital) form: they increasingly transform the object into the 'window' in which it appears. They radicalize the 'breach of contact' with natural reality and thereby are the most obvious manifestations of the post-modern era. Nevertheless, the 'digital revolution' forces us to examine the distinction between the (modern) age of representation (of nature) and the (post-modern) age of simulation and construction of nature "Today the computer is an actor in the struggle between modern and post-modern understandings" (Turkle, 1995, 43). From a Lacanian perspective, the issue is and remains gaining some sort of awareness of how we fantasmatically simulate the real. Although we cannot escape the mediation by our fantasy, neither can we be "comfortable with substituting representations of reality for the real". The Lacanian

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the notion simulation are in use: simulation as a productive re-creation of reality (Turkle), and as a diversion (as in Doel and Clark's categorization).

theory of the subversive dialectic of desire that distorts all 'closures' of comfort, happiness etc, seems to be an abdominal form of the modernist critical position seeking to expose 'false representations'.

In order to further investigate issues concerning representation and simulation, I will lay out the paradigm which the 'new media' seem to force upon us, and which led Baudrillard as early as the 1970s towards the radical position of the irrelevance of the question whether images refer to a reality outside the media. In Lacanian theory the notion of symbolic representation takes a crucial position, and for symbolic representations the central question regards the relation between them and the reality they represent. So Lacanian theory must confront the challenge of 'new media' over the relationship between representations and reality.

4.2. 'On the interface of it, it seems impracticable to link sign and referent'

Do signs in an 'age of information' still refer to a reality? Does the digital revolution force us into a new aesthetics, a 'new depthlessness' in which it is hard – or impossible – to distinguish between signifier and signified, according to thinkers as Eco, Jameson and Baudrillard the result of the massive influence of new media? "Eco … focuses on formal features as the most important aspects of contemporary culture, pondering the end of innovation and metaphor (definitive of modernism) … Jameson and Baudrillard (though in very different ways) both view developments in technologies of reproducibility as a central, ultimately perhaps the central, determinant in the process of the development of a general preponderance of form over content" (Darley, 2000, 73). Mark Poster subsequently states that the representational character of language is very problematic nowadays: "In sphere after sphere of daily life, the relation of word and thing is complicated by the loss of the referent" (Poster, 1990, 12). The word no longer refers directly to the thing, and may even replace the thing completely. When language thus starts to represent itself, the relation between words and things is no longer one of representation but of simulacra, of representations without any reference to an (original) object. Therefore Mark Poster speaks of the

> "instability of the rational individual or centred subject whose imagined autonomy is associated with a capacity to link sign and referent, word and thing, in short, a representational functioning of language" (Poster, 1990, 14).

Information technologies even detach us completely from our point in space and time. "In the mode of information the subject is no longer located in a point in absolute time/space, enjoying a physical, fixed vantage point from which rationally to calculate its options" (Poster, 1990, 15).[53]

The instability of the relation between the signifier and its signified causes the 'uncertainty' of the rational individual. Although for De Saussure the relationship between signifier and the signified is arbitrary, the two are still as inseparable as the two

[53] One might suggest that rationality itself acquires another ('post-modern') meaning, wherein it is the capacity to link sign and referent in a *playful* - and not in a *certain* - way that defines rationality. For is it in the age of the digital sign not crazy to believe in the truth (as correspondence) of what one sees? Would such a belief not define madness? The new 'rational individual' might be the one that is capable of playing with and using the simulacra that fill its world.

Nevertheless, I will argue that it is fantasy as a mediating screen that allows for a third conception of the self, beside the modernist unitary self and the post-modern fragmented self. Fantasy constitutes identity without this identity having a stable referent in reality.

sides of a piece of paper: the social and cultural conventions combine them (inseparably) together. Digitization challenges exactly this conventional combination of signifier and signified. That is why several theoreticians ascertain that in digital communication the signs only refer to other signs. Poster: "For the subject in electronically mediated communication, the object tends to become not the material world as represented in language but the flow of signifiers themselves. In the mode of information it becomes increasingly difficult, or even pointless, for the subject to distinguish a "real" existing "behind" the flow of signifiers" (Poster, 1990, 15). And Bolter: "All electronic texts are self-sufficient, in the sense that each element refers only to other elements in the network" (Bolter, 1991, 195). Sherry Turkle expands the question of the sign to a general theory about the *second nature* character of screen-*identity* (I emphasize these terms, for they are pivotal in my analysis of the interface as a fantasy-screen): "With computers we can simulate nature in a program or leave nature aside and build second natures limited only by our powers of imagination and abstraction. The objects on the screen have no referent. In this sense, life on the screen is without origins and foundation. It is a place where signs taken for reality may substitute for the real" (Turkle, 1995, 47).

According to Hayles information technologies "fundamentally alter the relation of signified to signifier. Carrying the instabilities implicit in Lacanian floating signifiers one step further, information technologies create what I will call flickering signifiers, characterized by their tendency towards unexpected metamorphoses, attenuations, and dispersions" (Hayles, 1999, 30). It is the 'fluidity' of digital communication that, according to Hayles, causes signifiers to flicker rather than float. Texts, for example, are no longer durable inscriptions but changeable (by the author, or the reader who then becomes the author …) so that (unexpected) transformations in signification can occur. A broader current of (post-modern) theory that bases its views also on the semiotic theories of the 'empty' or 'floating' signifier that is completely disconnected from the signified, declares this 'fluidity' to be the principle of post-modern subjectivity itself, in that it offers the individual the possibility to constantly reinvent himself.[54]

4.3. A mediamatic elimination of human subjectivity? From Vorstellung to Darstellung?

Are digital technologies leading us into a post-Cartesian era: a posthuman an era in which the power of technology is so compelling that it seems to efface the human subject that thinks it can rationally represent the world in its true shape? Such an erasure of the human subject of representation would lead us to the simulation model. The Eros that is the topic of my investigations is the desire for 'the perfect copy'. This aspiration

[54] One must discriminate the utopian view of technology eliminating the mediation of reality by means of arbitrary and conventional symbols (as is the case for Lanier, Warwick, Bolter and many representatives of post-modern feminist theory), from the critical view (as represented by Poster and Baudrillard, who even speaks of the 'loss of reality' itself). One's position depends to a large extend upon the philosophical position that one holds concerning the relation between sign and reality. Therefore I will shortly describe the three main positions, which is also the tripartition that one applies in systematic descriptions of the metaphor and of imagination! (see also appendix). First of all there is the positivistic or *realistic* position that holds that a metaphor, a sign or a product of imagination is a depiction or representation of reality and adds nothing new to it. According to the *idealistic* position reality is constituted on the basis of human knowledge, language and imagination, and therefore there is no 'real reality' at all. The *constructivist* position emphasizes the creative dimension of the 'mediators' in our understanding of reality: they can create new forms of understanding and new images, without the tie with some sort of 'deeper reality' being cut.

for 'photo realism' is for instance - and not insignificantly with regards to situating Lacanian theory - a characteristic of the scientific enterprise.[55] "Such exclusion of human bias is the point of many standard scientific procedures … The photographic procedure, like the scientific procedures, seems to provide a guaranteed way of overcoming subjectivity and getting at the real truth" (Mitchell, 1994, 28). Also representational painting and traditional photography tried to efface the visible signs of human agency in the production of the image. Computer graphics is the latest expression of this desire to remove the traces of the human subject (cf. Bolter/Grusin, 2000, 26-27).

The idea that cyber-technologies can represent the real thing on the screen without any distortion - and thus can overcome the imperfections of human reality - seems to be ineradicable. [56] For instance in cybernetics, where an interesting exponent of this theory, professor Kevin Warwick, had implants built into his body in order to communicate with objects around him, so that the door of his garage would open automatically when he approached, etc. (the next step being the direct exchange of thoughts - via the Internet - with others). In his account of his experiments in the book *I, Cyborg* he writes:

> [W]hen we compare ourselves with technology, the way humans currently communicate is so poor as to be embarrassing. Human speech is serial, error-prone and an incredibly slow way of communicating with others. Our coding procedures, called languages, severely restrict our intellect, as all our thoughts and ideas have to be transformed into signals that do not always accurately represent the *original concept* [my italics]
>
> Human communication is on the verge of a complete overhaul. We will shortly make much more use of the technology that can send and receive millions of messages, in parallel, with zero error. We will interface with machines through thought signals. We will become nodes on a techno-network. We will be able to communicate with other humans merely by thinking to each other. Speech, as we know it, may well become obsolete" (Warwick, 2002, 2/3).

Digital encoding would liberate us from linguistic subjectivity. Although Warwick has a very utopian, and somewhat naïve vision of this, digitization does affect our worldview.

As an ‘equalization’ of the whole range of different signifiers into data, digitization abstracts signs from their specific medium: “Digital encoding frees signs from a dependence on the medium of transmission” (Chesher, 1997, 86). Because of this 'liberation' one can play with the 'representations', manipulate and transform them, as is clear in digital photography. In watching a digital photograph we must be aware of the possible discontinuity between the photograph and the 'real object'. Now with the omnipresence of digital media this discontinuity even becomes an aspect of the world as we 'objectively' experience it. This paradoxical situation is what Vivian Sobchak notes

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[55] In his 'La science et la vérité' (1965, E. 855-877) Lacan situates psychoanalytical theory both as inseparable from science, as it is related to the same 'Cartesian' epistemological rupture (with nature), and as different from science by paying attention to the subject (of desire) in the disclosure of reality.

[56] It remains interesting that the most advanced technologies, and scientist, incline to lead our thinking back to a superseded view on interfacing with the real thing, wherein the interface, or the medium, is astoundingly without any influence on the 'content' of the message.

in the post-modern experience of time. "Indeed, objective time in post-modern electronic culture is perceived as phenomenologically discontinuous as was subjective time in modernist cinematic culture. Temporality is constituted paradoxically as a *homogeneous* experience of *discontinuity*" (Sobchak, 1994, 99). The 'abstraction' of signs from their analogue media touches on our *system of beliefs*, on the *idea of being certain*. Therefore it is a philosophical issue.[57] For it was Descartes who situated the question of certainty at the heart of philosophical investigation. So digitization touches at the heart of us as rational subjects: it touches on the belief in the representational function of signs.

Some theorists draw from technological development crucial conclusions for the rational subject as it is formulated in modern philosophy.

> "The old-European subject of representation ['Subjekt der Vorstellung'] has totally disappeared, in its place the project of showing ['Projekt der Darstellung'] has come about" (Van de Boom, 1991, 184).[58]

In the 'age of information' the modern subject of science, with its foundational belief in the recording instrument, would lose its conviction or belief that it can be certain of its objective representations of the world: the causal relation, in which an image is a true picture or depiction of the object, is affected (by - unconscious - intentions).[59] As Mitchell concludes:

> "Digital imaging dramatically changes the rules of this game … The distinction between the causal process of the camera and the intentional process of the artist can no longer be drawn so confidently and categorically" (Mitchell, 1992, 31).

Digital technologies may penetrate the human mind to such an extent that it could result in a reconsideration of the whole field of epistemology. Do we see anything other than the products of our own technological imaging (imagination)? When the images of our interfacing with technology appear in such intensity that they seem to be the thing itself, there is a shift from the realm of representation (*Vorstellung*) towards the realm of 'presentification' (*Darstellung*).[60] A *Vorstellung* must represent the world

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[57] One is tempted to situate this issue as a variant of the religious issues of information technologies, that Carl Mitcham describes as "how computers and information technology affect (to employ Christian terms) faith". Carl Mitcham and Alois Huning (ed.), *Philosophy and Technology 2. Information Technology and Computers in Theory and Practice* (Dordrecht: Kluwer, 1986), 11.

[58] In order to track the (semiotic) origins of the rift of the notions of *Vorstellung* and *Darstellung* it is interesting to relegate to the work *Sprachtheorie. Die Darstellungsfunktion der Sprache* (Jena: Fischer, 1934) of the German linguist Karl Bühler, who uses the notion *Darstellung* to indicate the *indirect* (d.i. mediated) relationship of sign and referent.

Lacan-commentator Anthony Wilden states that the confusion of the representation with the thing represented is the feature of schizophrenia and psychosis; Anthony Wilden, *The Rules are No Game: The Strategy of Communication* (London: Routledge & Kegan, 1987), 201. Such formulations introduce the question of possible psychopathological implications of the digital mediation of the world.

[59] Referring to Lacan's discussion of science and truth one could say, hyperbolically, that according to Lacan the pretended impersonal neutrality of scientific objectivity is already affected by the affects.

[60] Heidi Tikka uses this translation of *Darstellung* as opposed to *Vorstellung* to account for the visual space of the binocular technology of stereographic images. She takes these words from Monique David-Menard who argues in her work *Hysteria from Freud to Lacan, Body and Language in Psychoanalysis* (New York: Continuum Publishing, 1989) that the (hysterical) symptom is a *Darstellung* instead of a

as it really is: it gives a true picture of the world in the space of representation. *Darstellung* is the realm of heightened presence in which the *Vorstellung* is no longer a representation but to use the whole range of English terms, an impression, an image, or a show(ing), a production, a performance. Precisely the fact that it is so hard to determine whether we are dealing with one level or the other makes digitization such a powerful force: what is real?[61]

4.4. Cyber-subjectivism or cyber-objectivism?

When digitization causes the rational subject to lose its certainty concerning the correspondence of signs to reality, a pressing question might arise. The loosening up of the strict correlation between signs and referent might be conceived of as liberating us from the oppressive discourses that have always determined this relationship according to a certain 'ratio' (rationalistic discourses, paternalistic …). Then digitization shows us that there is no 'true reality' expressed by the signs, and that in fact everybody creates his own reality: cyberspace as a domain of liberation in which everybody can be 'who he really is' or 'whoever he wants to be', unrestrained by traditional discourses. This formulation leads to a form of *subjectivism*, which takes individual consciousness as the point of departure for the consideration of human thought and actions. Cyberspace would then finally do justice to the fact that everything is the product or the content of individual consciousness. On the other hand, digitization may also lead to the conviction that we are finally at the brink of eliminating the human subject with all its wishes, convictions etc which distort our clear, rational view of reality. Digitization would allow us to view the world independent of the shortcomings of the human subject. This is the claim of *objectivism*, which often governs scientific thought: objective knowledge of the world that is free of subjective interests of the human mind.

I will first discuss an example of a 'subjectivist' vision on cyberspace. Virtual Reality pioneer Jason Lanier sees the promise of new technologies in the possibility of transcending the mediation of the symbolic subject. Technology replaces the symbolic mediation of the world and generates a new world. He expresses this return to a pre-symbolic immediacy in his infamous notion of 'post- symbolic communication': "If you make a house in virtual reality … you have not created a symbol for a house or a code for a house. You've actually made a house. It's that direct creation of reality; that's what I call post-symbolic communication" (Lanier & Biocca, 1992, 161). Michael Benedikt explains: "In such an era, language bound descriptions and semantic games will no longer be required to communicate personal viewpoints, historical events, or technical information. Rather, direct – if "virtual" – demonstrations and interactive experience of

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Vorstellung. "*Darstellung* is the realm of heightened presence. This presence is sometimes achieved in dream images which may become so intense, that they seem to pass into the body as if in a hallucination … The hysterical state of *Darstellung* and the stereographic view both *challenge our sense of distance*" [my emphasis, A.N.];
Heidi Tikka, 'The Surface of a Hysterical Body as an Interface'
http://www.isea.qc.ca/symposium/archives/abstracts95/abs61.html

[61] And isn't the same problem involved in psychopathology: are the symptoms of a hysteric real, or is he simulating? Or, and this is the most intriguing option, does simulation make it real (Jean Baudrillard's simulation model)? We see (to pursue the ideas of Tikka in the previous footnote) that there actually is a line - via hysteria - from Freud to Baudrillard. "To simulate is to feign to have what one hasn't" (Baudrillard, 1988, 167). But Baudrillard continues his thought by questioning whether the work of the unconscious must then be considered as the real cause of simulation: "why should simulation stop at the portals of the unconscious? Why couldn't the "work" of the unconscious be "produced" in the same way as any other symptom in classical medicine" (Baudrillard, 1988, 168)?

the "original" material will prevail, or at least be a universal possibility. We would become again "as children", but this time with the power of summoning worlds at will and impressing speedily upon others the particulars of our experience" (Benedikt, 1994, 12-13).

In the domain of technology the claim of objectivism is the standard view of communication: communication is simply the transmission of a message from one person to another, without subjective elements playing a role in it. This so-called 'transmission model' of communication considers the message as a 'parcel' that the sender delivers to the receiver. This commonsense idea of communication is also the foundation of one of the first major attempts to formalize information, made by Shannon and Weaver. They fully abstract information from its context.[62] According to the American telecommunications engineer Claude Shannon (1916-2001) - Warren Weaver was merely an expounder, albeit famous, of Shannon's theory (cf. Hayles, 1999, 300) - information is a probability function with no dimensions or materiality. It represents a choice of one message from a range of possible messages. The more probable a message is, the less information it contains. So when I say that it will rain in the coming month I deliver far less information than when making this statement for the coming two days. The founding father of cybernetics, Norbert Wiener, also sees information as representing a choice of one message from a range of possible messages (Hayles, 1999, 52). This definition of information as a function of the probabilities of messages is known as the Shannon-Wiener theory of information. Both Shannon and Wiener separated information from meaning, since they wanted information to have a stable value as it moved from one context to another. Their goal was to develop a *mathematical* theory of information, and the introduction of meaning into it would burst this goal by contextualizing information.[63]

4.5. From semiotics to the subject as a mediating window

The space of fantasy inevitably implies a focus on the world of information as a *meaningful* world. Therefore we must consider the possible relation between information and meaning. An excursion into the past may be helpful. The relation between information and meaning was also the general question in the discussions on the nature of information during the Macy Conferences. Not everyone favored the mathematical theory of information. A British researcher, Donald MacKay, explicitly tried to link information to meaning. He held that information has to do with a change in the mind of the receiver, and concluded that:

> "subjectivity, far from being a morass to be avoided, is precisely what enables information and meaning to be connected" (Hayles, 1999, 56). [64]

This pushes us in the direction of my Lacanian thesis regarding the subject in the age of information. Several influential theories and authors, briefly discussed in the following, may furthermore support this line of thought.

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[62] Claude Shannon and Warren Weaver, *The Mathematical Theory of Communication* (Urbana: University of Illinois Press, 1949).

[63] So: Information refers to the probability that a certain message will occur in a certain situation; meaning to the special kinds of nuances the message entails (Danesi, 2002, 19).

[64] Donald M. MacKay, *Information, Mechanism, and Meaning* (Cambridge: MIT Press, 1969).

In stressing the importance of social contexts and codes, semiotics opposes the so called 'transmission model' of information. Information is not a 'thing' that is there (in the mind, in the world), simply to be transmitted by different kind of media; it is linked to meaning that the human subject introduces. Semiotics teaches us that 'reality' is not something that is simply present and waits to be articulated 'objectively' by a meta-language purified of all particularities. It shows that by representing 'reality', through the use of sign systems and codes to communicate and to live in a 'shared world' (Lévy), we also construct reality. The lesson of semiotics concerns the active *creation by the human subject of meaning* in the world. The roles the human subject plays and the codes and conventions that govern our daily life (possibly without us being aware of it) create meaning. Only when meaning can be objectified into information with a stable value will we have entered the posthuman era.[65]

Semiotics analyses human reality as inseparable from the sign (for this theme, see also the appendix). This is also the basic principle of Ernst Cassirer's philosophy of the symbol: the function of 'signifying' is the basis of all systems of symbols. Cassirer creates an entire philosophy of culture out of this, a sort of semiotics of the symbolically 'encrypted' phenomena of culture. He takes the theory of the sign beyond the domain of language into the domains of science, mythology, art and religion. Every system of symbols brings about a specific modeling or design not of *the* world but rather *to the* world, to an objective whole of meaning and representation. The notion of a natural disposition of a non-mediated 'real world' is, according to Cassirer's diagnosis, an uncritical, inept and nonsensical assumption (cf. Neumann, 1973). In addition to this, the so-called 'Toronto School' applies semiotic theory to technology as well. Our experiences are greatly influenced by technological media. Those media do not simply register the world 'as it really is' but actively create the world that we live in: they form our picture of the world. In its most extreme formulations this school of thought approaches an idealistic position (see also appendix). When "the medium *is* the message" the reference to 'the real world' is gone and the media themselves fully determine meaning.[66]

In line with this school of thought I would like to situate my own analysis. In analyzing the human subject in the 'age of information' I will try to avoid the extreme positions of subjective idealism, where all reality is the construction of the human subject, and naïve objectivism, that presupposes that elements of the human subject do not play a decisive role in our knowledge and experience of the world. For my point is that the 'instability of the rational subject' of representation does not lead to a situation of 'free subjectivism' or 'scientific objectivism' but to a situation where we should think of the subject as constituting, by means of his fantasy-screen, a window upon reality. The age of information highlights this fantasy-subject as a window, that is neither a

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[65] At least, that is the thesis of Katherine Hayles in her book *How We Became Posthuman* (Chicago/London: University of Chicago Press, 1999), wherein she sketches the road towards the posthuman and the delimitations these projects encounter(ed). So, to use the 'Saussurian' distinction between systems of signs and their concrete use, does the 'digital revolution' lead to *posthuman* patterns of information ('langue') that have lost their link with the material world of limitations, or do they generate *human* forms of individual or even idiosyncratical ways of speaking ('parole')?

[66] Jean Baudrillard is one of the most exciting postmodern theorists who draw such far-reaching conclusions out of modern semiotics. Therefore there are critics that call him an 'semiological idealist' who ignores the materiality of sign production ; Kellner, cited in Robert Stam, *Film Theory*, (Oxford: Blackwell, 2000), 306.

purely imaginary illusion (as realism would have it) nor an absolute expression of reality (as from an idealistic perspective).
The 'Lacanian' point that I will try to make is not to think in simple dichotomies. As if the modern subject of autonomy has completely vanished and was replaced by a post-modern subject that has lost all sense of a stable self. As if we must decide the battle between body and mind in one direction. There might also be a third possibility when one focuses on the crucial role that fantasy might play in the Cartesian, rationalistic subject: fantasy as a window upon 'different' aspects of myself, where the self is not fully fragmented but a - modernist - transcendental unifying point (a sense of unity of the self that accompanies our sensations, without this 'I' being a substance). Fantasy as a 'contextualization' of the 'disembodied' information codes. Precisely because information technologies highlight the tension between modernistic and post-modernistic understandings, this 'intermediary' form that centers on the question of fantasy might be brought into the open.

Conclusion

This chapter showed man's existence as a being of language as already characterized by an entwining of the (conscious) Self and the (unconscious) Other. In a theory of virtualization body and mind, here and there, message and event, and sign and referent are not only two separate entities, but also connected. In order to illustrate this point, I used Lévy's analysis of virtualization to try and bring Lacan's 'theory of virtualization' into a broader, technological context. Of the three 'forces of virtualization' that Lévy distinguished, I elaborated the 'force' that Lacan's theory does not address, namely technology. The third part of the chapter showed interface technologies as indeed a major factor in the virtualization of the real: they radicalize the 'space-time distanciation'. As Lévy's work, which owes so much to the work of Deleuze, turned out to be suitable to the context of Lacanian theory, the relationship between the real and the virtual in this theory is not so different from the (fourth, Deleuzian) model of Doel and Clark that centers virtualization around the notion of a continuous 'recreation' of the real. From a Lacanian perspective the real is neither a perfect original plenitude of which the virtual can only be a pale imitation, nor an imperfect 'drag' that the virtual can fully supplement. It is for that reason that I speak of *interface* technologies, which work in the tension - which cannot be canceled - of the real and the virtual. I distinguished the meaning of the word ‘virtual’ in every day speech, wherein it often denotes false appearances and illusions, from its technological meaning that both denotes it in a stronger (immersive VR) and weaker sense (desktop VR). For a philosophical understanding of technologies it is important to relate the technology-driven version of the virtual to the technological ability to cause effects that we experience as reality. The car and the computer have significance beyond their instrumentality: they are media that create new spaces for us to 'live in'. Therefore it is hard, or even impossible, to make a clear distinction between virtual technologies that result in ‘false appearances’ (because all technologies, from the alphabet to the computer, might be such 'teletechnologies' as they – further – detach us from the here and now), and virtual technologies as ‘efficient’ technologies, that cause all sorts of new effects. For the point is that those technological powers create effects that we experience as if they were real. The newspaper, the radio and the television open up my world, and so does the computer as a 'remediation' of

previous media. When world is disclosed in this manner, technologies create reality-effects: new ways in which the world appears.

When one proceeds from (fantasy) desire, the interface becomes the main issue. Although I recognized that these technologies further virtualize and 'fictionalize' our existence, I remain cautious with the utopian and dystopian discourses surrounding it. Interface technologies do raise serious philosophical questions concerning the status of (modern) human subject representation, and therefore I gave a broad overview of this discussion. However, starting from the centrality of (fantasy) desire one does not have to choose for one of the positions that often dominate the discussion. The technologies that virtualize our existence by information codes and 'technological fictions' do not either empower or eliminate the autonomous human subject. Semiotic and other theories showed that a more significant answer to the question of representation turns up by considering subjectivity as what 'interfaces' or contextualizes (disembodied) information codes and (embodied) meaning. Subjects are therefore always in a position of 'remediating' their perspectives on reality. Man's subjectivity is mediated, in the middle, in media. And it is 'remediated' by new technologies: thus we theoretically proceed from philosophical *mediation* to technological *mediatization*. And fantasy is exactly where this mediation or interfacing takes place. The interfaces of digital technologies (with the computer screen as its general model) that mediate man and world I hence conceive as an analog to the (mental) screen of fantasy as analyzed in Freudo-Lacanian theory, which will be the central theme of the next chapter.

CHAPTER THREE. FANTASY AT THE INTERFACE

Introduction

In the previous chapters I briefly introduced the concept "fantasy" as a key notion for the understanding of new media. This chapter will underpin this thesis with an interpretation of the role of design in technologies. The two extreme positions of fantasy as what functions (unconsciously) as a 'natural environment', or (consciously) as a merely imaginary simulation may help to focus on fantasy in its most interesting and valuable form, which is what I will call its functioning as a window. For interface technologies may show that the computer screen actually functions as a window. As I consider this window as a window of fantasy, it is necessary to take a profound look at the issue of fantasy (as a window) throughout the history of philosophy and psychoanalysis. From there on I hope to arrive at a model of the (computer)screen of fantasy that may illuminate its functioning and its role in the psychical economy.

1. Fantasy as design

1.1. Design displays the critical role of fantasy

As a central theme in the philosophy of technology, one generally considers design to be a process, pattern or scheme that describes how to realize a practical aim, function or artifact. It has to take account of two different sorts of constraints (Mitcham, 1980, 308; Brey, 1997). The first is the scientific or technological constraint: it is only possible to create what is technically possible. The second is the 'social constraint': the design process has to take account of the social, economical, 'cultural' demands that are imposed on it (safety regulations, standards, norms, prices, dominant aesthetics et cetera). But are these constraints independent of each other? The so-called 'hard' version of technological determinism holds that technology is autonomous; so that when something is technically possible it will be done (Ellul, Postman). In contrast to this, social constructivism states that the technological constraints are also socially constructed, which leads, as already mentioned, to a strange kind of social determinism.

The perspective (of the 'technological Eros') that I will describe, stresses the importance of 'unconscious', (inter)subjective 'ideals' (fantasies) in the process of design.

> "Designing (from the Latin word designare, "to mark out") … is, as it were, reified intention" (Mitcham, 1994, 200).

As not all intentions are conscious ones, design is also a matter of desire. Both on an individual and a collective scale. Hence the manifestation of the technological Eros in design can help to clarify, for example, why people in a specific culture (or subculture) all try to look the same and love the same gadgets. For example, why did Michael Jackson suffer all his plastical surgery operations; and why does a computer-addict sacrifice his relationship by being on-line all the time (these examples already indicate the difficulty of clearly separating the individual and the trans-individual level, for does the cultural context not also determine Jackson's fantasy of his 'perfect' face?). It therefore stresses an element in the list of 'social constraints' that is beyond the

pragmatic, instrumental and teleological reason in the process of design. To describe this element is to speak of phenomena like beauty (remember the importance of beauty for the formation of desire; see chapter one: § 3.3) and enjoyment.

Design is at the interface of what is technologically possible and what is desirable (the impossible): that's why it is like fantasy. Interface theorist Steven Johnson expresses the idea that the interface is about the design of desire by bringing forward that this technological enterprise is basically an artistic matter:

> "The most profound change ushered in by the digital revolution will not involve bells and whistles or new programming tricks. It … will lie with our generic expectations about the interface itself. We will come to think of interface design as a kind of art form - perhaps the art form of the next century" (Johnson, 1997, 213).

Design is a matter of both engineers and artists. "The engineering design ideal of efficiency stands in contrast to the artistic ideal of beauty. Beauty is not so much a question of materials and energy as of *form* [my italics]" (Mitcham, 1994, 229). Derrick de Kerckhove, in investigating the *electronic* technologies, gives an even broader scope to this intermediate status of design. He considers technology, as an extension of our mental and bodily functions, to be an externalization of our inner selves. Design gives a form to these technological extensions of ourselves, and is therefore at the interface of the body and the mind, the material and the cultural, the 'inside' and 'outside' of man.

> "Design, as I understand it, is a modulation of the relationship between the human body and the environment as it is modified by technology. Technology comes out of the human body and design makes sense of it … mind and body are so intermingled that it is pointless to separate them" (De Kerckhove, 1997, 156).

Therefore a clear distinction between the material and the formal is in his opinion impossible. The place where we exist is in *the between* (in the middle, in media), where the content is intermixed with the form (or, in Lacan's theory, truth with fantasy). As a creation of the surface of things, De Kerckhove calls design 'the skin of culture'. "Being the visible, audible or textual outer shape of cultural artifacts, design emerges as what can be called the 'skin of culture'" (De Kerckhove, 1997, 154). For a 'member' of McLuhans 'Toronto School' ("the medium is the message", or: "In the electric age, we wear all mankind as our skin", by which De Kerckhove opens his book) such an idealistic, 'postmodern' notion of the relationship between sign and referent (or (de)sign and referent, or even better: referent as design) does not appear strange. However, it does make clear the immense meaning of technological design (or technology as design) for the understanding of our culture and ourselves. As a mediation of the world that technology constructs, design functions as a technological externalization of the function of fantasy that Lacanian theory describes.[67]

When one moves from technology in general via electronic technologies to 'immersive technologies' like Virtual Reality, one can make even stronger claims about

[67] During a conference on technological design E. O'Doherty stated in his paper on the 'Psychological Aspects of the Creative Act' that "the *phantasma*, or sensory representation at whatever level of complexity … is what we are concerned with" (cited in Mitcham, 1994, 222).

the role of design. “VR is as close to ‘pure’ design as one can get in applied technology because it is entirely based on software activities” (De Kerckhove, 1997, 89). The equilibrium between instrumental and ‘Erotic rationality’ (excuse my language) shifts to the latter with Virtual Reality technologies. “Most of today’s world builders have focused on solving a particular problem. In the future, most virtual worlds will be designed in and of themselves to generate new discoveries, new insights, and new delights” (Pimentel&Teixeira, 1993, 154). The goal of designing interfaces has always been to immerse the user in the virtual environment of the screen: think for example of the movie theater, with the surrounding screen of the IMAX theatre as its apogee. Virtual Reality is (currently) as close as one can get towards the design of a 'fully realized world' on the screen. It is until now the most overwhelming experience of designer presence, the best illusion of an experience of 'being there' without mediation, that is, of technological enjoyment.

Although technologies may seem to provide this full enjoyment (*jouissance*) through the effect of generating an unmediated, immediate experience, this 'real presence' is mediated at the symbolical level, by metaphors.[68]

1.2. The design of technological presence by means of metaphors

Metaphors play a crucial role in the design of the form that the digital information takes (cf. Johnson, 1997, 45). They help us to imagine and represent the information (a visual metaphor like the folder on the desktop) and to make sense of it (a discursive metaphor like ‘the information superhighway’ as a representation of the Internet). Metaphors are means to give form to what does not (yet) have a place in reality ‘as we know it’. They even link the non-representable as such to familiar representations; all speaking about God can thus be said to be metaphorical. The notion of metaphors, for instance in the influential theory of Lakoff and Johnson, is therefore crucial for the understanding of virtual reality, for in "a way virtual environments are objectified metaphors and analogies delivered as sensory patterns" (Biocca, 1997, § 1.2). According to Sandy Stone cyberspace is nothing but "a space in which everything, including bodies, exists as something close to a metaphor" (Stone, 2001, 190). So we should be careful to consider cyberspace as an objective fact or objective information. It is a product of human imagination, wherein we use known metaphors for a new domain of information and communication. They inevitably go along with a distortion, misrepresentation or bias of the domain that they structure, since they describe it as something other than what it is.

Lacanian theory incorporates this notion of metaphors by considering distortion as an (constitutive) aspect of reality itself. Metaphors link the subject to the ‘original’ event (the real as loss) that - as nostalgia shows - is not present in our reality.[69] Freud describes this metaphorical structure as one of the two basic mechanisms of the unconscious and called it ‘condensation’. A representation represents (‘condensates’)

[68] This may already put us on the track of a crucial aspect Lacan's notion of fantasy (which I will describe in greater detail later on): that of symbolic structures governing the images and sceneries that fantasy - at first sight - consists of. Therefore the imaginary redoubling of reality in fantasy is already a metaphorical presentation of reality itself. So we can give an answer to the question that heads an article on virtual communities in cyberspace: 'Avatars R Us?' (McIlvenny 1999). Yes, 'Avatars R actually like Us' - although they never realize us. This anticipates on Lacan's theory of fantasy as the 'real stuff' of the virtual subject.

[69] For example: the 'encounter with God' is not joyful, but painful (or to be more precise: it is both; this runs ahead of Lacan's notion of *jouissance*).

several associative chains and is therefore overdetermined. Several associative elements compose a dream-image and other 'formations of the unconscious', that therefore do not have a single referent (for instance: a character in a dream is an 'assembly' of traits of different persons). Those 'metaphorical formations' do however form a link between a person's conscious life and the reality of his unconscious. They represent (present in reality) the inaccessible real. Lacan therefore describes the Freudian process of condensation as a metaphorical process (cf. S.11, 247). By means (or media) of association and composition there is a representation of something that does not exist as such (remember the two basic principles of selection and compositing that characterize most computer applications). Lacan calls this 'thing' real and considers it to be present only at the level of psychical reality. The metaphor is therefore always a substitution. It substitutes a 'real presence' that is impossible. And as Andrew Darley (2000) describes, the computer deals with this impossible real, as a machine that can present photo-realistic representations of impossible, non-existing worlds and phenomena. For Lacan it is exactly the metaphorical dimension of language that precludes that the truth of being (in the metaphysics of presence: the Idea, God, Logos) can be represented in exact language. All reality can therefore be said to be metaphorical. We never see 'reality as it really is', but always via (conceptual) frameworks. The displays of the computerized world that surround us are the new frameworks, in which we design reality via the metaphorization of data.

Interface-metaphors represent data-objects that do not have a phenomenal existence (they are, to speak in Kantian terms, of the noumenal dimension). Information-design transforms the data-objects into something visible or understandable, something meaningful (objects of representation). And this transformation is not completely 'objective' because the digitized real world does not possess in itself a structure or form according to which it should appear. For what is the true form a data-object? As it appears on your computer display, or on mine? And what is the true representation of cyberspace? Is it a huge brain (Pierre Lévy's 'Collective Intelligence'), a database, or a medium? And if we digitize a dog into a data-object, what would subsequently be the 'essential form' of a dog? A Tamagochi? … the meaning of a dog reduced to the exact codes by which it is communicated? And even if objects did have a true form, this form might be impossible to retrieve. For example: whatever amount of information on the Big Bang we may have, it will be impossible to visualize it in a virtual reality environment in its true *form*, because the event withdraws itself from its (technological) imaging. Platonism (the doctrine of the true form) is hard to maintain in the digital age.

Therefore truth cannot be equated – in the modern scientific sense of Descartes – with exactitude of the representation. For the human subject also determines the form in which the real object is represented: this is the 'Kantian revolution' that is so important for an understanding of the digital age. Needs, interests and desires of the user determine the way the data-object appears on the computer display. Thus it may already become a little clearer that for Lacan fantasy is the dimension that we must not exclude when we consider the Cartesian ideal of exact representation. Even more so, fantasy is actually the 'content' of this format of representation. There is a gap between the object and its correct representation. In this gap the (unconscious) functioning of fantasy takes place, as a metaphorical (trans)formation of data into a new 'face' of reality. For McLuhan media are already such interfaces.

For McLuhan the spoken word is the first technology by which man grasps his environment in a new way (and Lacan shares this opinion). The metaphors that intersperse speech hence have a constitutive function. But not just the spoken and the written word, also optical, mechanical and electronic technologies are according to McLuhan throughout history 'active metaphors' and 'translators' between man and world.

> "All media are active metaphors in their power to translate experiences into new forms" (McLuhan, 1994, 57).
> [J]ust as a metaphor transforms and transmits experience, so do the media" (id. 59).

However, we must be careful not to take metaphors literally, though this can be very tempting in case of the (metaphorical) worlds that computers create. "This kind of mistake happens because, first, people use metaphors unconsciously, and, secondly, because you *must* use metaphor to understand most of what happens in a computer" (Lakoff, 1995, 128). This is the conundrum we are in: we inevitably 'live in metaphors' and at the same time we must avoid the seduction of taking them literally. So: 'Wo Es war …'. Freudian theory makes us aware of the trap that goes along with fantasy's metaphorical production of reality.

2. Fantasy: either 'natural' or 'artificial'?

2.1. Freudian theory: fantasy appears as a 'natural' mediation

Freud's discovery of psychical reality as the proper domain of psychoanalytical investigations implies that a depth-psychological investigation of the screen that connects man and computer cannot simply depart from an 'objective' reality'. The notion of psychical reality means that there is a reality of desire that revolves around drives and their *psychical representations*. The drives do not have a natural object in 'objective reality'; their objects are psychical constructions. The undiluted distinction between reality and imagination hence loses its signification: the representations of the drive are just as much a fictitious reality as a real fiction (Bernet, 1996, 182). Because the objects that seem to correspond 'naturally' to the drives are already fantasmatic projections, man – as a libidinous being – always already lives a 'life on the screen'. Therefore the computer screen may be more than merely a medium that leads us away from reality to fictionality.

Just like technology is at first sight a rational means to achieve a transparent goal, man's drives seem to be natural means to fulfill biological needs. However, in both cases one 'forgets' the fantasmatic element that functions as a screen between man and world. In order to clarify this mediation Lacan accentuates Freud's saying that the drives are actually our myths.

> "The drives are our myths, said Freud. This must not be understood as a reference to the unreal. For it is the real that the drives mythify, as myths usually do: here it is the real which creates [*fait*] desire by reproducing therein the relationship of the subject to the lost object" (Lacan, 1996, 418).

The drives mythify our real aspect of existing as defective beings, as decentered or split subjects. They mythify the fact that we are not whole ('not-all'), by (psychically) reproducing the relation of the desiring subject towards the (lost, real) object. As myths tell stories about origins, the drive 'fantasizes' about its object. Therefore the drive *apparently* has a 'natural' object; only at first hand it is 'natural'. This formation of the object is so original that we seem to have a natural relation to the outside world. It is for that reason that Freud comes to the remarkable conclusion that *original fantasies* appear to be *instinctual* in man.

> "When Freud asked himself whether there was anything comparable to the 'instinct in animals', he found the equivalent not in the drives (*Triebe*) but in primal fantasies.[70] It is a valuable clue, since it demonstrates indirectly his unwillingness to explain fantasy on biological grounds: far from deriving fantasy from the drives, he preferred to make them dependent on earlier fantasy structures" (Laplanche & Pontalis, 1984, 23).

Fantasy provides the coordinates for our 'natural' relation to the world. For instance: the woman that sexually attracts me is not the natural object of my (sexual) desire. She only *appears as natural* because she fits within the fantasmatic coordinates that direct my drives. Lacan follows with the thesis that 'there is no sexual relation'. With Freud he shares the idea that the object [a] of the drive is actually a matter of our deepest fantasies:

> "after the mapping of the subject in relation to the [object] *a*, the experience of the fundamental fantasy becomes the drive" (S.11, 273).

Similarly, the experience of being present in the 'here and now' appears a simple natural fact. It nevertheless contains an important element of construction, and it is for that reason that (virtual reality) technologies can achieve a strong sense of presence - of actually being somewhere (else). Theories of the (psychological) construction of presence are consequently of the uttermost importance for those technologies. As Frank Biocca states: "We have been present in this environment for so long and it is so natural, that the idea that presence might be a psychological construct is only raised by philosophers and perceptual psychologists" (Biocca, 1997, § 5.3)

The fantasies that (unconsciously) shape our world defy analysis most and are laborious to grasp. Because we disguise those fantasies by 'living in them', dreamlike elements penetrate our 'alert life'. "How can wish-fulfilling fantasy function with the psychic force of dream, since when we entertain such a fantasy we are awake and hence know all along that it is only a fantasy? It can function in this way because the mind disguises not only the unconscious desires that animate fantasy, but also the fact that it is through fantasy that these desires are realized; that is, fantasy itself is also disguised … It is disguised through the … projection of fantasy onto the world in such a way that one's actions are dictated by fantasy" (Allen, 1995, 136). When the 'effect' ('affection') of wish-fulfilling fantasies is fully unconscious, fantasmatic reality appears as a natural environment that covers all there is (a sort of subjective idealism). However, when one holds that there is a simple and strict separation of reality and (conscious) fantasy, the

[70] S. Freud, 'The unconscious' [1915], *S.E.* 14, 195; 'From the history of an infantile neurosis' [1918], *S.E.* 17, 120, footnote.

realm of imagination is nothing but an imaginary illusion separated from 'objective reality'. I will hold that fantasy can and should not be reduced to either one of those positions. Then we can see how it functions as a subjective element in 'objective reality'. In order to do so, I will sketch Freud's 'first position' in the theory of fantasy, wherein one can find a rather strong distinction between reality and fantasy. This position leads to a view of cyberspace as a realm of imagination that either (euphorically) liberates or (dispiritedly) alienates us from reality. At the same time this description is the first step in a theory of fantasy that goes beyond the strict separation of reality and illusion.

2.2. Fantasy as imitation: hallucinatory wishfulfillment

The interface technologies that lead us into cyberspace prove that one cannot detach technology from desire. "This is the now standard fantasy in computer graphics about the new worlds opened up by computer technology: new spaces where all the old limits might be transcended" (Chesher, 1999, 79). Digital technologies promise to transcend reality and to reconnect us to the paradise that reality has taken from us. Down with the detours and delays of reality: instant gratification! With the computer we can connect to porn sites that satisfy sexual wishes, we can be the hero of our own (game)world, etc. The classical description of cyberspace as a 'consensual hallucination' (William Gibson) designates its intimate relationship with desire. By merely *imagining* our desires as fulfilled cyberspace fulfills our desires in a hallucinatory way. Cyberspace as an electronic *realization* of the fantasies accompanying and supporting the technological enterprise, which proves the love affair of man with technology.[71]

In many cases these fantasies boil down to the notion that technology offers us means to surpass the limits that reality imposes upon us: it offers us to relieve us from the burdens of reality. From a Freudian perspective this wish-fulfilling aspect of technology functions as the realized fantasies of a hallucination. What we cannot have in reality, we can have via the fantasy-screen (of the computer). As a 'consensual hallucination' cyberspace would be the new ideal world, or - by contrast - nothing more than merely an imaginary illusion. In order to better understand such a sharp distinction between reality and illusion, and look from a Freudian perspective at cyberspace as either surpassing reality or as a loss of it (which depends on ones evaluation of its transcending capacities) we must take a close look at the (first) Freudian model of fantasy.

Although it is nearly impossible to make a clear demarcation among Freud's different uses of the notion "fantasy" – which, consequently, I will not do – it is clear that Freud uses fantasy first of all as what we would call ‘fantasizing’. Fantasy then is the hallucinatory fulfillment of wishes that cannot be satisfied in ‘real life’. The paradigmatic example of this kind of fantasy is the daydream. In 'Hysterical Phantasies

[71] Deborah Lupton describes the inherent antagonism in this love affair of man and computer. It anticipates the issue of the (human-computer interface as a) fantasy screen that is both opening up and fending off the unknown dimension of reality. "The relationship between users and PCs is similar to that between lovers or close friends. An intimate relationship with others involves ambivalence: fear as well as pleasure. As we do with people we feel are close to us, we invest part of ourselves in PCs. We struggle with the pleasures and fears of dependency: to trust is to reap the rewards of security, but it is also to render ourselves vulnerable to risk. Blurring the boundaries between self and other calls up abjection, the fear and horror of the unknown, the indefinable … Computer users, therefore, are both attracted towards the promises of cyberspace, in the utopian freedom from the flesh, its denial of the body, the opportunity to achieve a cyborgian seamlessness and to 'connect' with others, but are also threatened by its potential to engulf the self and expose one's vulnerability to the penetration of enemy others" (Lupton, 2000, 487).

and their relation to Bisexuality' (1908) Freud writes: “These phantasies are satisfactions of wishes proceeding from deprivation and longing” (*S.E.* 9, 159). This notion of fantasy is very clear and gives it a well-defined position. Fantasy is an illusion that does not take into account the demands and constraints that reality imposes upon us. What is called the ‘central usage’ of fantasy in Freud’s work hence functions as the pivotal notion for distinguishing reality from illusion. It is therefore not surprising that during the *Controversial Discussions* (see also § 4.4.) Anna Freud (who puts a strong emphasis on the role of the ego in her father’s conceptualization of the mind as consisting of Id, ego, and superego) adopted this usage, to be followed later on by the ego-psychologists (Bott Spillius, 2001, 362), who focus on the integrative and organisatory functions of the ego and thus develop the adaptive point of view that presupposes a concordance between man’s inner world and his surrounding world.

Freud’s so-called ‘central usage’ of fantasy originates in his theory of auto-eroticism. Freud discovers that in the first stages of the development of the drive (oral, anal), it finds it satisfaction at the own body. When, for instance, the child sucks on its thumb it repeats the (oral) pleasure of sucking on the breast that originally went along with the taking in of food. This auto-eroticism functions according to the pleasure principle governing the most ‘primitive’ processes in the psychic system that Freud therefore calls primary processes. In these energy floats freely, with no ‘regulation’ by the laws that govern social reality. The pleasure principle supplies the only rule: to avoid displeasure or, when the tension is too high, to gain pleasure through a discharge of energy. So when I am angry I shout or hit, and when I am horny I surf the Internet porno sites and masturbate. The pleasure of the porn-surfer is thus an auto-erotic and 'masturbatory' pleasure via a computerized, 'hallucinatory' visualization of a fantasmatic scene that arouses sexual desire. Hallucination is the fastest way of constructing pictures (in the mind, or 'materialized' via the computer) that *appear to resemble* earlier satisfactions, and thus to (re)gain satisfaction.[72] For the primary processes it is of no interest that the screen is an ‘imaginary shortcut’ towards a satisfying object. All it cares about is that the object is *perceived* as being satisfactory. It only focuses on an ‘identity in perception' (‘Wahrnehmungsidentität’): ‘this is a picture that provides me satisfaction, so let’s use it’.

In *The Interpretation of Dreams* (1900) Freud describes this primitive functioning of the psychical apparatus as follows:

> “we were already able to add a second hypothesis, to the effect that the accumulation of excitation … is felt as unpleasure and that it sets the apparatus in action with a view to repeating the experience of satisfaction, which involved a diminution of excitation and was felt as pleasure. A current of this kind in the apparatus, starting from unpleasure and aiming at pleasure, we have termed a ‘wish’… The first wishing seems to have been a hallucinatory cathecting of the memory of satisfaction” (*S.E.* 5, 598).

In ‘Formulations on the Two Principles of Mental Functioning’ (1911) Freud comes closest to a formal definition of fantasy. Here he connects fantasy explicitly to the pleasure principle. Fantasy then is a (auto-erotic) refinding of pleasure by hallucinating the object of the wish.

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[72] The fantasmatic scenes that the porn-surfer constantly retrieves express the (fantasmatic) fixations of his desires: in that sense "free surfing" can attribute to self-knowledge.

> "A general tendency of our mental apparatus, which can be traced back to the economic principle of saving expenditure [of energy], seems to find expression in the tenacity with which we hold on to the sources of pleasure at our disposal, and in the difficulty with which we renounce them. With the introduction of the reality principle one species of thought-activity was split off; it was kept free from reality-testing and remained subordinated to the pleasure principle alone.[73] This activity is *phantasying*, which begins already in children's play, and later, continued as *day-dreaming*, abandons dependence on real objects" (*S.E.* 12, 222).

Freud considers a specific relationship between fantasy and sexuality. Sexuality, a broad notion, contains all activities that generate in one way or another pleasurable feelings in one of the erogenous zones of the body.[74] As the sexual drive could long-lastingly find satisfaction with its own body, and was thus not subjected to the reality principle, the field was open to the fantasies that accompanied it. Since the sexual drive must also – although with delay – find its object in the external world in order for the subject to stay healthy, those fantasies are particularly vulnerable to repression. They may be impossible in the socialized world, or become unacceptable for the subject himself. When, in the case of the masturbatory act, "the subject renounces this type of satisfaction, composed of masturbation and phantasy, the action is given up, while the phantasy, from being conscious, becomes unconscious" (*S.E.* 9, 161). Sexual fantasies play a central role in mental life, despite – or rather: because of – the fact that they in particular meet the fate of repression, which is why Freud calls them "the weak spot in our psychical organization" (*S.E.* 12, 223). This repression creates the psychic disposition towards neurosis in man, the conflict between unconscious desires and conscious control. That sexuality is actually the weak spot in our psychical organization is proven by the fact that many (predominantly male) users of the Internet cannot resist the temptation to seek sexual pleasure via the computer screen. Sex is still the biggest business on the net, offering such a massive electronic hallucination of gratifying objects.

3. Fantasy at the interface: windows of perception

3.1. Fantasy: from lure to the condition of reality

In her 2002 Freud Lecture at the Sigmund Freud Society in Vienna, the prominent Internet (psycho)analyst Sherry Turkle describes cyberspace as what some have called - following the terminology of Erik Erikson - a "psychosocial moratorium". Cyberspace offers a "time out" of reality, in which people can experiment with their identity. As Freud describes fantasizing as a "time out" during reality testing, Turkle interprets cyberspace as such an always-available playground. "Time in cyberspace reworks the

[73] "In the same way, a nation whose wealth rests on the exploitation of the produce of its soil will set aside certain areas for reservation in their original state and for protection from the changes brought about by civilization (E.g. Yellowstone Park)."

[74] We must remember here that Freud discovers that the 'sexual' drive always–already is made up of different partial drives that center around erogenous zones (mouth, anus, even the eye). This allows him to formulate in 'Three Essays on the Theory of Sexuality' his 'scandalous' theory of infantile sexuality. We must stress here that this 'sexuality' of the partial drives is not equal to what we normally consider sexuality, d.i. genital sexuality, that according to Freud only becomes dominant with puberty.

notion of moratorium because it may now exist on an always-available "window"" (Turkle, 2002, §4). The opinion that there is a sharp distinction between reality and the fantasy-space of cyberspace does not necessarily result from this. For she appeals to Erikson in order to bring forward that this withdrawal from reality is necessary for personal identity itself. "Relatively consequence-free experimentation facilitates the development of a "core self", a personal sense of what gives life meaning that Erikson called "identity"" (Turkle, 2002, §4). Translated in Freudo-Lacanian terminology Turkle's remarks signify that cyberspace is not merely a fantasy reserve for the pure functioning of the pleasure principle. It is also a *window* for gaining insight in what actually is the object of desire. As a staging of the drives it may offer a blindly desiring subject a view of what it wants and what kind of object responds to that. As such it is the *condition for fantasizing*: only when one knows what one wants, one can stage the objects in imaginary scenes (cf. Bernet, 1996, 175).

Although the Internet is of course an enormous playground for gaining pleasure from imaginary scenes, Turkle also shifts the attention to a 'deeper' aspect: the functioning of fantasy as a window. In Freudian theory, these two aspects are closely connected, as I will briefly show by means of Freud's central notion of the lost object.

For Freud the hallucinative experience is a revived experience of earlier, real experiences. In the case of imbibing food into ones own body by means of the mother's breast, the real or actual object of the drive (the breast) is lost. Fantasy tries to recover this object, but all it can do is to generate a *substitutive* experience of satisfaction.[75] Although Freud uses fantasy as an 'illusory' function which does not take reality into account, we can already discern the constitutive function of fantasy in it. For it is the recovery of the lost, real object that motivates us to confront external reality. Fantasy is not solely the opposite of reality but also the (libidinal) motivation of our odyssey through reality. This shift has important consequences for a Freudian view of cyberspace. For if the fantasy screen is also an indispensable 'window' on reality without which reality would not be of much interest to us, the computer screen may also be more than simply a window that leads us into an illusory world.

3.2. Kantian theory: mediating sensations and reality

The digital revolution transforms the object into an interface. Accordingly, I showed, with Rifkin and Chesher, that information technologies cause another awareness of time and space: they alter these fundamental 'schemes' with which we represent reality. In a Kantian terminology, we can say that the 'informational imagination' leads to different *appearances* of the world: as – for Rifkin – more programmable, less dependent on subjective experience, expandable … As the computer interface gives (a new) form to the temporal and spatial dimension of things, it is indeed a medium of (Kantian) imagination. Virtual reality may accentuate this. On the basis of (the 'real') data the computer transforms sensations of a virtual world into a mental representation of a reality by means of "the body as a display device for a mind" (Biocca, 1997, § 1.2.) – interfaces as channels of perception.[76]

[75] To put it in Lacanian terms: fantasy functions as a medium for acquiring the object of the need. Thus it constitutes the desiring, and not the indigent, relation to the object.

[76] One domain in which similar investigations of the interface take place is computerized art. The name of the 2001 CYNETart festival was *INTERFACES - Channels of Perception*. It tried to establish the connections between technological and bio-psycho-social interfaces. The general goal of the institute that

Many immersive Virtual Reality designers actually consider the body - in accordance with the work of perceptual psychologist J. J. Gibson – to be an "array of sensors propelled through space to scan, rub, and grab the environment" (Biocca, 1997, § 1.1.). The Virtual Reality interface provides the (chaotic) stimuli, and simultaneously causes a coherent perception of (a virtual) reality. The interesting Kantian point to be made here is that we should not think of perception as preceding the arrangement made by the understanding. With its conceptual apparatus the understanding determines perception. Cyberspace, as such an apparatus, therefore may have an enormous influence on our perception of things. The conceptual apparatus determines the senses, even before perception occurs. This much, as Horkheimer and Adorno already showed in 1947, both Kant and Hollywood film production know :

> "Intuitively, Kant foretold what Hollywood consciously put into practice: in the very process of production, images are precensored according to the norm of the understanding which will later govern their apprehension" (Horkheimer and Adorno, in Simmons, 1995, 147).

Perception is not a 'natural given', but something that makes sensations correspond with the category of reality (which is for Kant the first category of quality). Judgment, whether something can be affirmed as a reality, comes first. "Perception is not prior to the category of reality, underwriting it in some way, but requires that the category be given in order to take place" (Caygill, 1995, 345). For Kant reality is a pure concept of understanding, "that which corresponds to a sensation in general" (CPR A 143), a category that affirms the being of something (in time). The understanding must judge whether the application of the category of reality to certain sensations is legitimate, and therefore must determine whether there is something real in ones perception.

As we know, Kant rigorously confines reality to the limits of possible experience. The principle of the 'anticipation of perception' determines the quality of appearances, its 'degree of reality'. This anticipation is a preconception that allows perception to take place. For Kant the 'real' is that which corresponds to sensation in the object. The 'anticipation of perception' takes care of the matter that perception is always a perception of objects that are real. Without it there might be the (illusory) possibility of perceiving objects that are not real. An instantaneous synthesis, "generated in the act of apprehension" (CPR A 167), thus anticipates sensation, and its intuitive, spatio-temporal synthesis (Caygill, 1995, 75). With this theory Kant radically 'deconstructs' direct perception. Even he himself found the idea of a pre-intuitive positing perplexing. "Nevertheless there must always be something striking about this anticipation of perception for a researcher who has become accustomed to transcendental consideration and thereby become cautious, and some reservation is aroused about the fact that the understanding can anticipate a synthetic proposition of the sort which that concerning the degree of everything real in appearance is". (CPR A 175).

What we call reality is a matter of (unifying) judgment and of a pre-intuitive synthesizing of sensations. For reality to be rightly granted, something real at the level of experience must correspond to it. Virtual Reality generates such 'real experiences'. That is, the interfaces stimulate different sensory channels: visual (head mounted

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organizes the annual festivals is to focus on the relationship between media-technologies and consciousness (http://www.body-bytes.de/tma/index.htm)

display), aural (spatial audio), tactile (tactile feedback) and proprioceptive (force feedback and motion display). This transformation of (the real of) the computer code into the physical sensations of the computer output is already a 'synthesizing' activity which the computer appropriates itself from the human subject, for whom it is – according to Kant - the most elementary activity in relation to the 'object'. The technological interface synthesizes that which subsequently becomes an object for our intuition: it 'allows our perception to take place'. So already at this level it functions as a medium. Even prior to its more amenable functioning as a (Kantian) 'screen of imagination' that puts - like a television screen - the 'real object' of the computer codes in a spatio-temporal dimension.

However, whereas in case of the human subject this 'anticipation of perception' must ensure that it is dealing with a real object, the 'computerized subject' - for whom the computer establishes the appearances - cannot be so sure of this. So, the question is whether there corresponds a 'real' object at the level of experience to the 'codified object'. Is the experience that a Virtual Reality installation provides also good enough to confine reality to it? Or does it fool us (turn us into hallucinating fools) by making us illegitimately apply the category of reality to its simulated experiences? That is, does it lead us into the illusion of presence, by exceeding the limits of (real) experience?

In her 'Reflections on Real Presence by a Virtual Person' Carrie Heeter concludes, "it is the experience itself (the mediated experience) and not technology alone that engages the subjective experience of presence" (Heeter, 2003, 344). Real presence (here: reality, the experience of 'being there') is not only a matter of sensory realism and 'real' sensory stimuli. She illustrates this by her visit to the Space Shuttle. Despite the total physical realism, she did not particularly feel as if she was there. "Expectations, lack of familiarity, limited prior experience, and limited cognitive schemas dampened my sense of presence" (Heeter, 2003, 336). Giving a survey of the literature on presence, she brings forward that presence is not a static internal state, but varies from moment to moment. And in daily life different individuals experience different amounts of presence. Embroidering the so-called Myers-Briggs personality test, that classifies people as being either dominantly sensate or intuitive, she refers to research results concerning people online. "A majority of people (close to 85 %) are sensory types who are 'more at home in the physical material world' … sensate types 'focus on what is happening in the here and now', whereas intuitives focus on 'the abstract, conceptual world of ideas - inferences, theories, daydreams, musings, speculations, symbols'. Intuitives and sensates are aware of the physical world differently. Presence for an intuitive is likely to be more conceptual, whereas presence for a sensate would be more perceptual" (Heeter, 2003, 338). Furthermore, there is a difference between numerous moments of moderate presence and peak moments of extreme presence:

> "Some individuals are probably presence junkies, seeking intensity all the time. Others are the opposite, avoiding being present as much as possible" (Heeter, 2003, 339).

An interesting variation on this is that we are both, only at different times. She rejects the dichotomy of perception ('perceptual processing') as presence, and conception ('conceptual processing') as absence. Both can evoke presence, as long as they are tied to current sensory stimuli. "Presence occurs during periods of time when cognition

(processes such as perception, attention, learning, thought, and affect) is closely tied to current perceptual stimuli" (Heeter, 2003, 340). So, as her Space Camp mission illustrates, presence may be lower during a real visit with inadequate conceptual processing (high expectations of what it would be like to be on a space shuttle, no sense of danger, little knowledge of and experience with the shuttle …), than during a virtual, simulated visit with better conceptual processing.

The 'Kantian' conclusion is that for 'real presence' the objects must (also) conform, or pattern themselves to, the human subject. It is not simply sensory realism that takes the measure of presence. Presence is the result of the interfacing of the real (stimuli) and the virtual (mind). It is *presence for a subject*, restricted by the point that the subject must have some sort of sensory experience of the (real) object. And that is what computers can do: they transform the object into interfaces that we can physically experience. In that sense, the human subject would be inclined to apply the category of reality to it

3.3. Freudo-Lacanian theory: desirable reality

Beside this functioning of the computer interface as a screen that transforms various perceptual sensations into certain appearances (the Kantian transcendental imagination) that we judge successfully or otherwise as a 'real presence', there is furthermore the (psychoanalytical) issue of a 'desirable presence', of making the appearances into certain objects of desire. The subject of desire posits its own unconscious fantasies ('schemes') in the production of objects, as well as in their consumption. This is what Teresa Brennan asserts in her essay on the role of foundational psychical fantasies in our current technological world. She stresses the (Freudian) point that consumer goods encapsulate foundational fantasies. The desire for instant gratification, the desire to imitate the original, the desire for the mother are part of an original human condition. "I want to propose that the desires encapsulated in commodities reflect an underlying transhistorical psychical fantasy. In other words, I am proposing that we treat the commodity as an external expression of that fantasy" (Brennan, 1993, 94). Giving a free utilization, this would imply that we constantly buy the same consumer goods (are attracted to them) because they express transhistorical fantasies. In her *Electronic Eros* Claudia Springer shows that a similar desire, the desire to merge (with technology) permeates many expressions of popular culture. And Raymond Barglow's work may support the idea that 'constitutive myths' pervade information technologies, as he maintains that they assume many maternal characteristics: "as providers of information, they are bounteous mothers of a kind … Much mythology is built up around mothers: that they are all-knowing, all-powerful, limitless nourishing" (Barglow, 1996, 132). This 'mythology' is actually built-in technology. For instance in the voice control system in the cockpit of the Eurofighter jet the (mostly male) pilot can perform tasks using his voice; a computer voice gives him the information he asks for. Intriguing is that this computer voice is female. Because the pilots react best on a female voice. Or as one of the pilots stated: "mama knows best". The affective relationship with the computer voice leads to better performances.

Freudo-Lacanian theory depicting fantasy as what 'rules' the formation of the desirable object teaches us an awareness of a deep psychological structuration of the world. Much more than we are aware of, fantasy organizes our perception of the world. And technologies actually seem to embody this psychological level. I will give one more example, coming from Clifford Nass, a leading theorist who focuses on the

relationship between technology and psychology. He discovered some interesting phenomena in Voice User Interface design. First of all that people react the same to a synthesized voice as to a natural one. Secondly that there is an important role of fantasy in the perception of a computer voice: a 'male' computer voice is often perceived as competent and concise, whereas 'female' computer voices are supposed to be better in communicating on topics such as relationships and love (cf. Nass et al, 2003).[77]

Fantasy as a medium that supports reality by making it an attractive or engaging process (beyond our 'instrumental' involvement), may be illustrated by taking a crucial passage from *The Four Fundamental Concepts of Psychoanalysis* (pp. 178-180) where Lacan uses a very instructive distinction about man's interfacing with technological media. He distinguishes between the English terms 'aim' and 'goal' in order to "clear up the mystery of the *Zielgehemmt*" (p. 179). A partial drive can reach its aim, which is to attain satisfaction, without achieving its goal, the realization of its biological function. Fantasy as a medium that constructs the drive's object can provide satisfaction - and actually does so in most of the cases - without fulfilling ('natural') needs. According to Lacan this duplicity characterizes man: the drive aims at a *continuation of satisfaction* and not merely at a fulfillment of a need. It is this excess of pleasure that accounts for much of man's construction of reality.[78] In man's electronic realities we can find the same functioning of fantasy-objects as media that support reality and provide pleasure. The cell phone, for instance, sustains the construction of a reality of mobile communication. And it is obvious that it does so by providing pleasure (of chatting) and enjoyment (of contemplating the beauty of the latest gadgets). It is an example of an object that gives a new shape to our world.

Cyberspace in general will – as a space wherein we are always 'transcendentally' involved – not appear to be a reality without the functioning of (transcendental) fantasy. Online psychotherapy, and online relationships in general, would be uninteresting – and hence stop – without (unconsciously) positing something in the impressions that we get from the other on the screen. The whole sexual thing on the Internet would stop without its fantasmatic support. For if we would simply measure it against 'true, face to face reality', we would immediately realize that it is not real, and quit surfing. Online virtual worlds are also an expression of fantasy but, as many users endorse, it is far from merely being an imaginary illusion: they 'live in it'. Because of this creation of a world by means of a (fantasmatic) screen I cannot share John Suler's conclusion that we may become free to enjoy cyberspace as we wish, that is without unconscious '(de)formation'. For as long as we wish – and that is something we hopefully always will keep on doing – there will always be 'unconscious strings attached' (at the very least in the broad, transcendental-psychological sense that I try to describe here). Suler:

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[77] For a recording of Nass speaking on this subject at Stanford University: http://murl.microsoft.com/videos/stanford/CS547b/001201_OnDemand_100_100K_320x240.htm

Combining Nass' conclusions with the previous example on fighter pilots, one apparently must conclude that - for pilots - the effects of communicating with a computer are optimal when its 'cold' capacities of competence are wrapped up in a 'warm' form: the pilot's situation seems to require a sufficient sense of trust.

[78] I will elaborate this relationship between loss and excessive pleasure (*jouissance*) in chapter six. Both themes converge in Lacan's notion of the *object a*, that I will introduce here by rendering Lacan's description of it in case of the oral drive: "It is not introduced as the original food, it is introduced from the fact that no food will ever satisfy the oral drive, except by circumventing the eternally lacking object" (S.11, 180).

"Healthy online relationships are those in which we realize that our perceptions are not always accurate. Other people are other people, not extensions of our beliefs or ghosts in our machine. Given the complexities of transference reactions, this isn't always easy to do. As Otto Kernberg was fond of saying about unraveling transference in psychotherapy, one must continually ask, "Who is doing what to whom?" Once we fully realize that the computer AND online others aren't our Moms, Dads, Sisters, or Brothers, we become free to enjoy cyberspace in the ways that we wish, without any unconscious strings attached" (Suler, 1998).

Indeed, we must come to realize that our perceptions are not accurate. That is what I tried to do in my exposition of (fantasy as) the window of perception. But then, exactly, one comes to the awareness that we cannot do away with the screen, for there is no 'true reality' behind it. Reality is always affected by desire. I will shortly discuss this issue in psychotherapy.

3.3.1. Psychotherapy: transforming, not eliminating, fantasy

The Freudo-Lacanian issue of fantasy governing the perception of reality itself entails that the truth of a fantasy has nothing to do with a correspondence with an objective reality (cf. Bernet, 1996, 180-3). Evaluating fantasies is not so much a matter of reality as it is of truth. A psychoanalyst does not try to liberate his patient from so-called 'unrealistic fantasies'. More so, to deny being a subject of desire results not in autonomous freedom but in pathology. Let's say that my unconscious fantasy in writing this work is to establish myself as a great philosopher. My psychoanalyst would subsequently not try to show me that this is an unrealistic fantasy and that I also can be happy and satisfied when writing this work helps me to find a job as a scholar etc. It is not simply reality that takes the measure of my fantasies, but the truth of desire, which is that there is no reality in which my desires are satisfied: even if I become a great philosopher this is 'not all'. Another example. We cannot say that it is 'unrealistic' to buy consumer goods that attract us, and hold that they have nothing to do with reality. What we can, or even must, say is that we must not be deluded by the idea that they are the true objects of satisfaction (as they try to present themselves).

So what first of all is at stake in psychoanalytic therapy is that I come to realize *that* I am subjected to a fantasmatic formation of desire. Than the issue becomes recognizing the content of my desires. It is about gaining insight, and from that point on trying to relate differently to the (problematic or pathological) fantasmatic formation and enjoyment of my desires. It is not about the elimination of fantasmatic mediation. For the fantasies that might motivate my writing are also what create a valuable reality for me. They just must not become a prison. This insight through articulation in 'the structure from which everything gets a meaning for a specific subject' (the fundamental fantasy) is called 'subjective destitution'. The end of analysis consists of a transformation of myself, a 'destitution' of the place from which I believed or supposed that I desired (in fantasy). This change in the relationship between subject and object of desire often manifests itself as a melancholic depression or a maniacal enthusiasm. They indicate a transformation of the subject's relation to the formation of his unconscious desires, to his unconscious enjoyment.

4. Origins of interface subjectivity

4.1. Historical sketch of the notion fantasy: between perception and understanding

The word fantasy ('Phantasie', 'fantasme') derives from the Greek words 'phantasma' and 'phantasia': *appearance*. In Latin 'phantasma' became 'fantom'. In the philosophy of Plato 'phantasia' mostly has this meaning of appearance (Camassa, 1989, 515). In his *Republic* he links 'phantasia' to the concept of mimesis. At the height of ancient Greek culture mimesis had a broad range of meanings: imitation, copying, reproducing, but also portraying, depicting, representing and producing. In the *Republic* Plato states that the painter copies (false) appearances and not the true world; his work hence is necessarily fake. He produces, what Plato later calls in his *Philebu*s, a 'phantasma': a bad copy that only appears as a likeness to the 'real thing'. The good copy (the 'eikon') on the other side truly participates in the Idea of the thing: it approaches the ideal (cf. Doel/Clarke, 1999, 277). In his *Sophist* Plato distinguishes explicitly between the two forms of mimesis. The one form imitates the invariable model faithfully and can therefore be called a true copy or true representation. The other form produces a deceiving likeness and is therefore false.[79]

Aristotle defines 'phantasia' (provisionally) as a capacity to produce images without an actual affection of the senses: for there also appear images when the eyes are shut. Fantasy takes us beyond the actual sight of sense perception. For Aristotle as well as for Plato, 'phantasia' as a capacity of the soul, is ambivalent with regards to truth (Camassa, 1989, 517). But the two agree for opposite reasons. According to Aristotle sense perception constitutes what is true. Thinking, however, may be false. 'Phantasia' as what is in between these two instances can go either way as far as its truth is concerned. Aristotle defines *phantasia* most prominently in *De Anima* III.3:

> "*phantasia* is that in virtue of which we say that a *phantasma* [an appearance] occurs to us" (Aristotle, 1986, 428a1).

The most interesting aspect of Aristotle's thoughts on fantasy is that he, especially in his *De Anima*, understands 'phantasia' as a capacity that causes things to appear in a certain way. Thus the attention shifts from fantasy as (illusory) imagination to fantasy as (truthful) appearance. As such a productive capacity, 'phantasia' creates *conceptions* ('phantasma') in the process of thinking. In the process of remembering it creates *mental pictures* ('eikon'). And in sleep it produces *dream-images* ('eidolon', 'phantasma'). Furthermore, it establishes ideas that function as the goal that motivates human action or the movements of organisms (as such a faculty that excites or enthuses living entities, it seems not far removed from Lacan's notion of fantasy). Fantasy thus occupies a central role in human existence, for it determines significantly how the world appears to us: it is the *cause of appearance*.[80]

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[79] Although Plato is ambivalent with regard to the truth-value of mimesis, in general mimesis has a somewhat pejorative meaning in his thinking: it refers to something that is not true. And the same goes for fantasy. As he situates 'appearances' in the *Sophis*t as a mixture of perception and opinion ('doxa') it still belongs to an inferior understanding of the world, for it does not belong to the order of pure thinking that can offer true insight in the unchanging forms of the eternal world.

[80] Some commentators use "to cause to appear" to translate the root verb of 'phantasia', *phantazo*. In this highlighting of 'phantasia' as appearance, and not as imagination, Martha Nussbaum for instance "focuses the attention in the definition Aristotle gives of *phantasia*: "that in virtue of which we say that a *phantasma* occurs to us," on the phrase "occurs to us." *Phantasia* is the capability that we have not only

In Aristotle's thought 'phantasia' occupies an *intermediate* position between sense perception and the intellect. This feature has since then become a classical notion in the understanding of fantasy. It found its way into the philosophy of Aquinas, who accepted it as self-evident in his commentary on *De anima*, via Renaissance philosophers such as Ficino and Pico della Mirandola to the work of Kant. In order to get a closer look at this fundamental role of fantasy in human reality I will extrapolate the discussion of fantasy to this pivotal thinker of Western modernity. The philosophical work of Immanuel Kant attributes a *transcendental* role to the imagination: it conditions our experience in a way that cannot be overcome. No experience of reality outside the *frame* constituted by the imagination. With Kant's thinking it is impossible to go beyond the formations that the imagination imposes upon our reality.[81] The imagination produces reality.

The equation of 'phantasia' with the meaning of (productive) imagination which is nowadays current, is historically nevertheless not the first time this has happened. It was Philostratus (170 - 244/249), one of the leading sophists or orators of his time, who, with his famous comparison between 'phantasia' and mimesis, stands at the threshold of our common conception of fantasy. He holds 'phantasia' for a wiser artist than imitation that only reproduces what it has seen. For 'phantasia' produces also what it has not seen, and posits it as a substitution for reality (cf. Camassa, 1989, 521).

So already from the beginnings of Western philosophy fantasy seems to be the condition for virtuality (or, to switch back to the theme of the previous chapter, of the virtual subject of the signifier). It is the capacity to produce images of objects without the 'real presence' of the objects. By presenting (virtually) an object that is not immediately present (but 'in absentia'), fantasy sustains reality's virtual character. Without this constitutive function of fantasy in human existence, virtual reality would be impossible: cows do not interface with cyberspace. In this sense, fantasy is constitutive for the technological enterprise.

4.2. The (unconscious) productive imagination: from Kant to Freud

In his *Anthropology from a Pragmatic Point of View* (1798) Kant distinguishes 'phantasia' (that is here equivalent to 'Einbildungskraft', imagination) into a "faculty of the original representation of the object (exhibition originaria)", that is to say preceding the perception of the object, and "a faculty of the derived representation (exhibition derivative), which recalls to mind a previous empirical perception" (Kant, 1974, §28). In the *Critique of Pure Reason* (1789) he describes this distinction as the difference between a productive and empirical imagination. The *productive imagination* is an a priori structure of the human understanding that precedes sensibility and hence conditions our experience. Productive imagination synthesizes the manifold sense-impressions by putting them in the dimensions of space and time (like a television synthesizes the signals by putting them successively and spatially on the screen), and thus causes the world to appear as a coherent whole.

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to perceive an appearance, but also to say that we see it *as* an appearance of a particular type. Nussbaum extends the definition: "*phantasia* is the faculty in virtue of which the animal sees his object as an object of a certain sort." Thus *phantasia* goes beyond just the perception of an image, to the interpretive power of the individual to see that object *as* something" (Noel, 1997).

[81] In a Lacanian terminology this impossibility is called 'the real', as the 'hard core' of what we experience as reality. I will further elaborate this parallel between Kantian and Lacanian thought at the end of this chapter.

> The principle of the necessary unity of the pure (productive) synthesis of the imagination prior to apperception is thus the ground of the possibility of all cognition, especially that of experience" (Kant, CPR, A 118).

We do not willingly execute this (synthesizing) activity of the imagination. It is, on the other hand, something that conditions - outside of our reflexive self - our ideas or constructions of the world. For Kant describes the synthesis in general as "the mere effect of the imagination, of a blind though indispensable function of the soul, without which we would have no cognition at all, but of which we are seldom even conscious" (Kant, CPR, A 78).[82]

The productive aspect that imagination has in Kantian philosophy shows that fantasy is more than the capacity to give an identical representation of the empirical object. The issue is that of the 'disturbance' between the perception of the object and our actual understanding of it. This 'disturbance' may be a matter of defectiveness (a flaw in our capabilities for remembering, a neurological deficiency). But this inadequacy can also be structural, that is to say it belongs to the human condition itself. And this notion of structural inadequacy is what rallies Kantian philosophy and psychoanalysis. Freudian psychoanalysis holds that there always is a mental distance from the traumatic 'object'. That is why Lacan defines the real (object) as the impossible. In Kantian philosophy the object as it is 'in itself' is impossible to get to. Because of this 'impossibility' fantasy plays a crucial role as mediation towards the real.

So this issue of a productive imagination leads us away from Platonism as the doctrine of a true correspondence between subject and object (contemplation as a reflection of the world in its true form). And brings us from Philostrat via Kant to Freud. Kant already emphasizes the 'unconscious' aspect of imagination. This aspect is obviously present in the poetic or productive imagination: the artist creates what is not there in reality. But is it not also 'working' in the reproductive imagination that forms out memory or recollection? Kant seems to give an affirmative answer to this with his transcendental notion of fantasy: I cannot recollect anything without integrating it within the mind's horizon of space and time. Freud gives a more concrete form to this notion. For him the schemes that fantasmatically mediate the real are not so much universal structures but particular 'mental screens' made up of the material of individual history.

The difficulty of accounting for the 'unconscious productive imagination' that leads to 'distorted' memories is already discernable in Aristotle's analysis in *De anima*, where this problem is consistently left out. His analysis of 'phantasia' have the tendency to ignore the moment of the 'productivity' as an uncontrollable change of the representations, and solely illuminate its constitutive function in knowledge-acquisition (Camassa, 1989, 519). Freud focuses exactly on this problem, after having discovered that the memories of our (ineluctably sexual) history are always-already affected by (unconscious) fantasies. The notion of psychical reality that results from that discovery

[82] And is Lacan not referring to the same mechanism when he brings forward that a 'merging into unconsciousness' can result in a crumbled experience of oneself or of the world. The fragmented body can manifest itself in dreams, but can also result from the aggressive destruction of the unity that one is. "This fragmented body … usually manifests itself in dreams when the movement of analysis encounters a certain level of aggressive disintegration of the individual. It then appears in the form of disjointed limbs, or of those organs represented in exoscopy, growing wings and taking up arms for intestinal persecution - the very same that the visionary Hieronymus Bosch has fixed, for all time, in painting" (Ec., 4).

indicates a peculiar psychological field *between* sense perception and consciousness. For Freud this particular field becomes the focal point of his investigations. A field that is not reducible to the pretended true registration of the world by means of sense perception or the understanding. This connects the psychoanalytical conception of the mind to the Kantian. Fantasy is essentially productive and spontaneous; there is no pure or clear reproduction of earlier perceptions (Kunz, 1946, 64-65).

4.3. The origins of Freudian theory: psychical reality and the real as fantasmatic

In order to illuminate the subjective-objective character of fantasy I will indicate how Freudian theory shifted its attention from the real as a real event in objective reality, towards the original fantasmatic mediation of the real (as a traumatic core in subjective reality). We must therefore recapitulate Freud's original formulations of psychoanalytical theory. In the earlier formulations of his theory Freud considers fantasies as having been made unconscious by means of 'forgetting' or defense. He considers the symptoms of his first (hysterical) patients as the result of fantasies that were conscious first and later made unconscious. So if the therapy might bring to light the real events in infantile life that gave rise to these first conscious fantasies, the unconscious fantasy might loosen its grip on the patient. At the outset of his development of psychoanalysis Freud devotes his labor (for which he even uses hypnosis) to the process of remembering. At the time he still understands the real cause of mental states in a scientific-positivistic manner supposing that it can make the real present. But this was soon to change.

Because of his shocking discovery that infantile scenes are not always true, Freud had to revise his idea that by the analysis of symptoms one can get to know the infantile scenes that fixate the libido and determine the symptoms. Symptoms can also be representations of fantasies! Of those fantasies Freud says:

> "They too posses a reality of a sort. It remains a fact that the patient has created these phantasies for himself, and this fact is of scarcely less importance for his neurosis than if he had really experienced what the phantasies contain. The phantasies possess *psychical* as contrasted with *material* reality, and we gradually learn to understand that *in the world of the neurosis it is psychical reality which is the decisive kind*" (*S.E.* 16, 368).

Thus Freud repeats in 1917, in the twenty-third of his *Introductory Lectures on Psychoanalysis*, the decisive discovery that he first formulates in his famous letter to Wilhelm Fliess of the twenty-first of September 1897. In that letter he declares that he no longer believes his neurotic patients anymore. Several arguments led to this conclusion. First of all the impossibility of bringing the analysis to a real conclusion. Secondly, the improbability that every scene of seduction, that so many of his patients came up with, really occurred. The perversity of 'fathers' towards children could not be that widespread. So Freud distances himself from his previous theory of seduction. "Then, thirdly, the certain discovery that there are no indications of reality in the unconscious, so that one cannot distinguish between the truth and fiction that is cathected with affect" (*S.E.* 1, 260). Fourthly, the consideration that even in the most deep going psychosis the unconscious memory does not overcome the resistance of the conscious. So there is no reason to expect that in treatment the conscious will completely tame the unconscious.

Between 1895 and 1899, the years that completed the discovery of psychoanalysis, Freud abandoned his theory of seduction. He no longer believed that a trauma that really took place, the seduction by the father or the 'uncle', was the cause of hysteria. Instead, he discovered the (auto)erotic impulses of childhood (cf. Verhaeghe, 1999, 28). The scene of seduction is not (necessarily) a real event but a fantasy that functions as a cover up of the spontaneous manifestations of sexual activity. In his *History of the psychoanalytic movement,* Freud formulates his decisive discovery as follows:

> "If hysterical subjects trace back their symptoms to traumas that are fictitious, then the new fact which emerges is precisely that they create such scenes in *fantasy*, and this psychical reality requires to be taken into account alongside practical reality. This reflection was soon followed by the discovery that these fantasies were intended to cover up the autoerotic activity of the first years of childhood, to embellish it and raise it to a higher plane. And now, from behind the fantasies, the whole range of a child's sexual life came to light" (Freud, quoted in Laplanche & Pontalis, 1986, 8).

Freud discovered a connection between sexuality, trauma and defense, and his intention now was "to show that it is in the very nature of sexuality to have a traumatic effect" (Laplanche & Pontalis, 1986, 9). The insistence of sexual impulses is an urge that needs a screen(ing) *and* an adequate formation.

4.4. Fantasy in Freudian psychoanalysis: beyond the opposition of reality and illusion

The notion of fantasy, which is the fundamental object of psychoanalysis (Laplanche & Pontalis, 1986, 14), has different meanings that one cannot easily heap together. There is its common meaning in which it is equal to the activity of imagination, the capacity of the mind to produce images. This is also the way Freud uses it before he discovers its more constitutive role for human reality, which led him to use fantasy from 1897 onwards as a (central) concept of psychoanalysis (Roudinesco & Pion, 1997, 284). Psychoanalysis focuses on the role of imaginary worlds and their contents in human reality (neurosis and art for example).

However, a crucial issue is that of consciousness. Are we *consciously aware* that our use of fantasy leads us into an imaginary world that we can distinguish from reality? This is the model of daydreaming, as a product of the ego that tries to compensate for its (imagined) shortcomings and seeks to realize the imaginary ideal. Or is the indulging in fantasies also, or to a large extent, an unconscious activity? Then fantasy is the product of the 'unconscious subject' (as Lacan names it) that cannot avoid being (transgressive, subversive) to all that is (necessarily) excluded from consciousness. The (fantasmatic capacity of the) unconscious subject is then the other side of the process of individuation: it sustains individuality by relating the subject in a manageable way to what is beyond itself. Thus fantasy would help us construct our reality, without us being aware of it. The French language discriminates between 'fantasme' and 'fantaisie'; 'fantasme' mostly indicates (in psychoanalytic theory) the unconscious 'dreamlike' aspect of fantasy, whereas 'fantaisie' rather refers to the products of someone's

conscious fantasies. In the German language both aspects are rounded together in the only word it knows for fantasy, which Freud also uses: 'Phantasie'[83]

How sharp is the distinction between unconscious and conscious fantasies? For there is clearly a difference between the fantasy-work in dreams and in daydreams. This was the central issue of the *Controversial Discussion*s in the British Psycho-Analytical Society in the nineteen forties (cf. Bott Spillius, 2001). In her paper 'The Nature and Function of Phantasy', which was first given at the *Discussions*, Susan Isaacs departs from the central role of unconscious fantasies in the work of Melanie Klein in order to introduce a distinction between conscious and unconscious fantasies. She suggests the graphological use of *ph*antasies for unconscious fantasies, and *f*antasies for conscious ones. Since then the Kleinian school in psychoanalysis - that focuses on the 'unconscious all along' aspect of fantasy: it is an activity that accompanies all mental activity - uses this difference between *f*antasy and *ph*antasy to stress its conscious or (otherwise) unconscious character. As this issue touches upon the theoretical core of psychoanalysis, it may not surprise that it has evoked a lot of discussion ever since. Jean Laplanche and Jean-Bertrand Pontalis for instance, consider it a superficial distinction that does not do justice to the complexity of Freud's thought. Futhermore, in the translations of Freud's work the double use of terms for the one term 'Phantasie' leads to arbitrary interpretations (Laplanche & Pontalis, 1998, 156). Although they acknowledge the development in Freud's metapsychological status of fantasy, this does not suppress the homology between the different levels of fantasy. Conscious fantasies may have a root in unconscious fantasies, and one may be able to 'work through' unconscious fantasies. However, when one wants to distinguish fantasy, one must not use the barrier between the (pre)conscious and the unconscious system, but one must discriminate within the unconscious itself: have the fantasies been unconscious all along or have they been forgotten and repressed? (Laplanche & Pontalis, 1986, 21-22). This seems to lead to the conclusion that the crucial distinction is between the constitutive and pathological origin of fantasies, between fantasies that disclose new aspects of the self and those that escape from it. The mind-bending issue of psychoanalysis is the distinction between fantasies that constitute (authentic) desire and those that deceive it.

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[83] As I approach the notion of fantasy primarily from the Lacanian French movement in psychoanalysis, I will illuminate the meaning of the German 'Phantasie' first of all via its translation of Freud's work in French. Freud's first translators in French, Marie Bonaparte and Edouard Pichon, use the word 'fantasme' (phantasm) in order to stress the *conceptual* importance (and thus constitutive aspects) of the imaginary formations that the German word 'Phantasie' expresses. As such they try not to coincide the meaning of 'Phantasie' with 'fantaisie' as a purely imaginary activity.

I use the English word fantasy – and not the word phantasm – to translate the word that Lacan uses in his discourse, namely 'fantasme'. With this word Lacan refers alternately both to the merely imaginary and to the constitutive aspects of fantasy. As the word fantasy covers, like the German word 'Phantasie', both these sides, it seems to be the best option. However, it must be added that the meaning of the French 'fantasme' leans more to the constitutive aspect of 'dream-like' images, than to a willing production of satisfying images. In other words: in Lacanian psychoanlysis fantasy has probably more to do with 'dreams that govern our daily existence' (produced by the unconscious subject of desire) than with daydreaming as an activity of the ego. In consequence, when I use the word fantasy in my text, I will use it – consistent with its 'Kantian-Freudian' conception – with a special interest for its unconscious aspect, that is with a focus on the way in which fantasy determines, pre-reflexively, the way the world appears to us. When I use it in its conscious aspect ('fantaisie', daydreaming, imaginary compensation) I will describe it as a *merely* imaginary, illusory, form of fantasy.

Can a final distinction ever be drawn? What is my self? Can we say what is real? What do I really want? What is healthiness? Can one conclude an analysis?[84]

What we can say, is that fantasy in its 'Kantian-Freudian' understanding is an '*original possibility*' of imagining reality, and that it thus transcends the classical opposition of reality and illusion. "This opposition antedates psychoanalysis by many centuries, but is liable to prove too restrictive both to psychoanalytic theory and practice" (Laplanche & Pontalis, 1986, 6).

5. Fantasy: the model of subjectivation

5.1. The double bind of fantasmatic identification

For Kant, there are some fields in which we are necessarily involved in some sort of illusion. This 'transcendental illusion' is not an accidental or avoidable 'logical illusion' of fallacious judgments and the related 'empirical illusions' of subreption (cf. Caygill, 1995, 244). It

> "is an illusion that we cannot at all avoid any more than we can avoid the illusion that the sea seems to us higher in the center than at the shore because we see the center through higher light rays than the shore … For here we are dealing with a natural and unavoidable illusion that itself rests on subjective principles and foists them on us as objective ones" (Kant, CPR, A 297, A 298).

Kant describes three domains of the natural dialectic of transcendental illusion wherein we take the subjective conditions of thinking beyond the limits of empirical experience: psychology, cosmology and theology. Thus we come to pose the following 'objects': the soul, the world as a whole, and God. For the order of psychology this means that we assume the 'I' to be an experiential and substantial thing that is a given fact in reality. While, conversely, it actually is a regulative Idea of Reason that is indispensable (imperative) for a non-fragmented experience of ourselves. Kant gives an account, or logic, of the 'unavoidable' illusions that those three domains contain, without claiming to remove them.

The same movement of transcendental illusion goes for the barred subject of Lacanian theory. Žižek:

> "what we call "subjectivization" [which Žižek describes in an Althusserian context as:] (recognizing oneself in interpellation, assuming an imposed symbolic mandate) is a kind of defense mechanism against an abyss, a gap, which "is" the subject … In the domain of "pure reason", the subject of pure apperception - S, the *empty* "I think" - necessarily lapses into the transcendental *Schein*, mistaking itself for a "thinking *substance*", i.e., falsely assuming that, by way of self-consciousness, it has access to itself qua Thing-in-itself … the "lapse" designates the shift from subject into subjectivization: in my capacity as knowing subject, I "subjectivize" myself by way of recognizing myself as "person" in the fullness of its content" (Žižek, 1993, 171-172).

[84] And is a conclusion a matter of truth? Or of force, power, money, authority, tiredness, coincidence, ritualism …. ?

We necessarily ‘fill in’ the void of the subject by means of identifications: ‘subjectivation’.[85] We assume that as a person we actually have some ‘substantiality’, that there is a substance to ourselves. And we necessarily 'imagine' that the object of our desire is the real object of our desire and not merely a fantasmatic construction. This process of giving content to our transcendental form as desiring subjects is the work of fantasy! (Lacan expresses the relationship of the empty subject of the signifier to the lost object of satisfaction in his formula of fantasy: S<>a; fantasy interfaces the symbolical level and the libidinal level of the *object a* of enjoyment) And the human-computer interface is similar to this fantasmatic process in that it enables the subject to explore and stage his libidinal desire in a (cyber)space of signifiers.

Fantasmatic subjectivation carries with it that we are necessarily caught in a 'double bind'. On the one hand we 'naturally' assume that something corresponds to everything we strive and long for. For if I think that my partner is nothing more than one of the many possible objects of my desire, a male desire that by its transcendental structure necessarily aims at some female object, the whole sublimated world of our love relationship falls apart.[86] I necessarily assume that there is 'something special' in her (for me). This 'special thing' is what Lacan calls the agalma or the *object a*. Desire is driven by such 'special things', and therefore it always is 'deformed' or subjectivized. There is no pure desire. Desire has no 'true' or 'real' object (the example from the previous footnote shows that what we experience as 'our true love' actually is a fantasy-object in which different orders intermingle). On the other hand – and this is the other side of the same question – the truth of desire is that the object it aims at is 'not all' (it is not the 'true object').[87] This has as an important consequence, as Lacan brings forward in his later teachings, that the object of our desire is also our symptom. That this symptom has an irremovable aspect that even holds together the consistency of subjectivity (the *sinthome*), confirms once more the double bind.[88] Žižek lumps this development together in the phrase 'enjoy your symptom!'

This double bind is desire itself, its (subversive) dialectic. To use the Lacanian distinction between the ego and the subject, one could say that the ego is our necessary illusion. Lacanian psychoanalysis can be seen as a ‘logic of this illusion’, as an analysis of the way in which we are always already caught in a dialectic of the (conscious) self

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[85] Both the word 'subjectivation' and 'subjectivization' are in use. I choose for the first one.

[86] This offers a good opportunity to illustrate the Lacanian distinction between the real, the imaginary and the symbolic. The real of this male-female relationship is purely physical: he has a penis and she has a vagina, and they want to get it on … Being in love is of the imaginary order. And the symbolic order exists when one shares one's life with the other. The high level of difficulty of fantasy in Lacan's theory results from the fact that fantasy combines those three orders.

[87] Lacanian theory has been criticized for this 'insatiable' desire that would perfectly suit the capitalistic tendency of ceaseless more consumption. Nevertheless, one can just as well claim the opposite: awareness of the 'illusory' structure of our desire leads to modesty and austerity. The key notion is, as in the major philosophies of life, self-knowledge. For Lacan, self-knowledge can only be produced in *interaction* with the other, and not given by an Other (the analyst, God, the beloved, the producer …), or via introspection.

[88] In his 1975-1976 seminar *Le sinthome* Lacan even considers the Oedipus complex as a symptom that keeps everything together (S.23, 18-11-1975). The Symptom holds the subject together because there is a primal repression that can never be undone (9-12-1975). One can concretize this notion of primal repression, which is the result of language, by using a different word for this impossible raising, elevation, and neutralization. We cannot *rectify* our sayings, although we often try to do so by saying that 'we did not mean it that way', and thus try to crawl back into a neutral position. But the statement has been made, and functions (unconsciously) as a (symbolic) signifier that defines our (real) position.

and the (unconscious) other (in ourselves), of what can be mirrored (of ourselves) and what can not (the *object a*). Its stake is the continuous subversion of the ego's illusions, without believing that those illusions can be fully eliminated. There always remains an 'unavoidable illusion', which is the fantasmatic construction of the object of desire. We (fantasmatically) constitute the object of desire ourselves, but assume that its 'attractiveness' is hidden in the object itself. 'Self-realization' then has to do with gaining insight in the following process: how my sense of reality (realism) is affected by my *relationship* to reality.[89] On psychoanalytical interpretation Lacan then concludes:

> "It has the effect of bringing out an irreducible signifier … What is essential is that he [the subject, A.N.] should see, beyond this signification, to what signifier - to what irreducible, traumatic, non-meaning - he is, as a subject, subjected … This enables us to conceive … where the problem of the conversion of fantasy and reality converge, namely in something irreducible, non-sensical, that functions as an originally repressed signifier" (S.11, 250-251).

Because there is constitutive repression (d.i. a more fundamental repression than the interferences or blockages that one can overcome, a repression that results from being a subject of language: 'Urverdrängung'), there is fantasy as a permanent structure or window for perceiving the real.

As a result we are all to a certain extent wrapped up in the 'fundamental illusions' of one of the three structures that Lacanian theory develops with regards to this formation of the object. I shall point out briefly those three fundamental clinical structures (cf. Verhaeghe, 1994, 186-192). In the *psychotic position* the normal (unitary) experience of the self is disturbed to such an extent that (by defending oneself against the sense of loss of self) the psychotic 'hypostatizes' the object that he imagines to be ('I am being looked at', for instance, turning into 'I am the object of their pursuit'). For the psychotic the appearances (of the world, of himself) are massive depictions or conceptions. He *knows* what he is: the firm belief and unshakeable convictions of the psychotic, taking shape in the immediate reality of the hallucinations and delusions (that is to say appearances or 'unavoidable illusions' become delusions because the gap of desire is filled in).[90] In the *perverse position* there is an ambiguous relation towards the object of desire. The pervert both recognizes and disavows the law that causes desire. The object that – because of the prohibiting law – is necessarily fantasmatic, is to the pervert both an object that provides genuine pleasure, as nothing more than an arbitrary construction. Therefore he can play without sense of guilt with the conventions and rules (and media) that provide the object of his desire. The pervert plays with the normal conception of himself and tries to accentuate this conception to the limit (for instance,

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[89] *In the end* of our 'self-analysis' we do not reach our 'true self' but a point where it is impossible to distinguish between sign and reality, between signifier and signified. This is, Lacan says (S.23, 18-11-1975), the original signifier/signified that means nothing and is just a *sign of arbitrage*. We could translate this as the self-confirming and performative statement: 'I am this!' This leads to a paradoxical idea of freedom. Dutch psychoanalyst P. C. Kuiper expresses this as follows. Man can only experience himself as optimally free, when he is maximally determined by motives. At the peak of his inner freedom he says (like Luther): 'I have no other choice'" (Kuiper, 1984, 156).

[90] Lacan also speaks in another way about the psychotic structure, namely as an uncompromising character, and calls himself psychotic in that way. In the version of his lectures in 1975 in the United States (Yale, M.I.T.) that was published in *Scilicet* he states: "Psychosis is an attempt towards rigor. In that sense, I would say that I am psychotic" (cited in Marini, 1992, 244).

making oneself or the other radically into an object: sado-masochism). Characteristic of the *neurotic position* (both hysteria and obsessional neurosis) is the all-embracing sense of guilt. For the neurotic the object that he (necessarily turns himself into) is never 'it'. 'I am not that': the characteristic doubt of the neurotic; and the hysteric's refusal to be in any possible way the object of others enjoyment. The neurotic experiences all identifications as alienating, and he tries to get at 'the real thing'. But as he always remains within the domain of the law he will never get 'it', as the law only allows for partial identifications and a partial enjoyment. Fantasy then actually is an escape.

5.2. The computerized Self: appearance or illusion?

Does the notion of reality as an effect (see § 3.4) or as appearance – and not as an objective given – imply that we are necessarily caught in a world of illusions? Here we may again refer to Kant as the central figure of modern Western thought. As for Kantian analysis, the crucial issue at stake in Lacanian psychoanalysis is to distinguish between *appearances* and *illusion*s. Kant showed that we cannot know an 'objective reality', the things as they are 'in themselves. Therefore we have to resort to the necessary appearances of the things-in-themselves. But this is not the same as to be driven back on illusions ('Schein'). For illusions consist in taking appearances as if they were the objects in themselves; disregarding the constitutive forms that the subject puts in the representation of the object (cf. Kant, CPR, B 69).

> "if one ascribes *objective reality* to those forms of representation then one cannot avoid thereby transforming everything into mere *illusion*" (Kant, CPR, B 70).

As in Kantian philosophy, Lacan's logic of fantasy claims that the subject constitutes itself along with the formation of the object (cf. S.11, 184-186). But this constitution can, roughly, take place in two opposite directions:

> "But the object of desire, in the usual sense, is either a fantasy that is in reality the *support* of desire, or a lure" (S.11, 186).

The fantasy-object is, to use the Kantian terminology, either an appearance in which the subject creatively represents reality, or an illusion or imaginary lure in which we disregard the element of subjectivation and fall into the trap of objectification: taking representation for reality itself and ignoring desire's hide-and-seek universe.[91]

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[91] In his essay 'Fantasy, Imagination and the Screen' (1983) 'Kantian' philosopher Roger Scruton describes this distinction between fantasy that discloses and fantasy that flees from reality as the difference between imagination and fantasy: "My thesis will be this: that imagination is involved in the understanding of art, and that the aim of imagination is to grasp, in the circuitous ways exemplified by art, the nature of reality. Fantasy, on the other hand, constitutes a flight from reality … if there is a *transition* from fantasy to reality, it is because there is a discipline which turns fantasy into imagination" (Scruton, 1983, 127). The human-computer interface is apparently a medium that can make such a transition.

In order to illuminate this Kantian terminology (from which I take imagination as similar to the Freudo-Lacanian notion of fantasy) I note once more that Kant calls *imagination* the original representations produced by the (productive) imagination: they are not derived from experience but provide its conditions. As ordered representations they are different from the willful or accidental production of representations ('*fantasy*') (cf. Caygill, 1995, 248).

The screen of fantasy now allows a luring objectification, and thus annihilation of desire, in two ways. I will try to illustrate this using the analogy of he computer screen. I can turn someone else completely into an object and thus ignore his desire (remember the infamous rape in cyberspace, wherein someone was able to acquire full control over someone else's avatar and hence could ‘rape' it, cf. Julian Dibbel, 2001). Or I can turn myself into an image (I play being a very self-confident personae in order to deal with my lack of a stable identity).

The question regarding the truth of the fantasy-screen hinges on the issue of how we deal with the irrepresentable real thing in myself and in the other or the outside world. For the real, unknowable X (the 'Thing') is both something in the subject (his 'inner core') as well as something that he can bump into in the outside world.[92] Information technologies can both screen us off further from this aspect of reality that we cannot or dare not confront or, conversely, offer a medium in which it can manifest itself. In this sense they function exactly as the screen of fantasy. They may lead us into illusion by letting us take the reality on the screen for the real thing itself, or provide new appearances of the real.

Slavoj Žižek gives an example of the second possibility. About a neurotic weakling who adopts the screen persona of an aggressive macho, it "is all too easy to say that this weakling takes refuge in cyberspace daydreaming in order to escape from his dull impotent real life. What if the games we are playing in cyberspace are more serious than we tend to assume? What if I articulate in them the aggressive perverse core of my personality which, owing to ethical-social constraints, I am unable to act out in my real life exchange with others? Is it not that, in such a case, what I stage in my cyberspace daydreaming is, in a way, 'more real than reality', closer to the true core of my personality than the role I assume in my contact with real-life partners? … In this precise sense, as Lacan put it, the Truth has the structure of a fiction: what appears in the guise of dreaming, or even daydreaming, is sometimes the hidden truth on whose repression social reality itself is founded. That is the ultimate lesson of *The Interpretation of Dreams*: reality is for those who cannot sustain the dream" (Žižek, 2001, 198). Žižek brings forward that fantasy may be more real than reality itself: its expression may take us through the 'screen of normality' that surrounds and encloses us.

In general, surfing the Internet in search of enjoyment (in whatever form: sex sites, chatting, role playing) may offer insight into the fantasmatic formations and fixations of our desire. A continuous repetition of the same staging of desire (playing the same role, watching the same sexual scenes, etc) may provide information about us just as well as repetition in a 'talking cure'. Here again we meet the aspect of the computer screen as a medium that because of its ability for 'free-playing/surfing/chatting' can offer insight in ourselves. Or as researchers on psychology in cyberspace, Michael Fenichel and John Suler, state in their survey of the 'Myths and Realities of Online Clinical Work': "Freud's psychoanalytic technique was designed to foster the very disinhibition that naturally occurs so easily on the Internet" (Fenichel et al., 2002, 486).

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[92] There are some interesting parallels between Kantian and Lacanian theory. For Kant the thing-in-itself indicates both a limit, and the space beyond these limits. The thing-in-itself has "the negative quality of limiting the employment of the understanding and reason to what can be an object of intuition, and the positive quality of denoting a problematic space beyond these limits" (Caygill, 1995, 393). The 'real thing' is both an unknowable X in the external object, *and* in the subject itself.

However, information technologies may also radicalize the covering of the (unacceptable, unbearable, horrible …) 'real me' and the 'real other' by its electronic shield. Kevin Robins and Les Levidow describe such a functioning of information technologies in the development of warfare. "War converts fear and anxiety into perceptions of external threat. It then mobilizes defenses against alien and thing-like enemies. In this process, new image and vision technologies can play a central role. Combat is increasingly mediated through the computer screen. Combatants are involved in a kind of remotely exhilarating tele-action, tele-present and tele-engaged in the theatre of war, sanitized of its bloody reality. Killing is done 'at a distance', through technological mediation, without the shock of direct confrontation. The victims become psychologically invisible; the targeted "things' on the screen do not seem to implicate him in a moral relationship" (Robins & Levidow, 1995, 120). Information technologies may affect the (normal, social, moral) relationship between self and other by objectifying defenses into an electronic shield. War becomes fun: triumph of the pleasure principle. The screen of fantasy then becomes impenetrable armour.

This short account of the double bind of the interface shows the computer screen does have the capability to function as a (what I will call) 'window' which 'discloses' the world (and not merely 'closes' it by its sheer imaginary imitations). Although the computer screen may not touch upon 'the real thing', it does however induce a 'real sense of presence'. This duplicity is the crucial aspect of psychical reality (it is not real, but neither merely an illusion), and this same characteristic goes for the computer screen. Robillard et al, who executed empirical research on the expanding therapeutic practice of exposing phobic patients to phobogenic stimuli in Virtual Reality environments (I will address this issue of phobia and the computer more concise in chapter 5) state: "It was found that anxiety could be induced in phobic participants by exposing them to phobogenic stimuli in therapeutic virtual environments derived from computer games", and the analysis indicates "a synergistic relationship between presence and anxiety" (Robillard et al, 2003, 467). The psychotherapeutical practice of exposing phobic patients to the object of their anxiety/fear in Virtual Reality installations shows that the computer screen screens off from the threatening object. However, at the same time it evokes something ('an effect') of this object. In their paper on social anxiety in virtual environments James et al. conclude that the "results of this pilot study suggest that social anxiety can be generated within a virtual social setting" (James et al., 2003, 242). And a survey study on the sensation of being present ('presence') in Virtual Reality states: "Perhaps one of the most important consequences of presence is that a virtual experience can evoke the same reactions and emotions as a real experience" (Schumie et al., 2001, 187).

Because of the disunity in the subject and the unavoidable (fantasmatic) subjectivation Lacanian theory cannot give simple and unambiguous answers to the question of the psychological impact of information technologies. All it can do is provide a framework – which I am developing – from which to analyze concrete cases. On a psychical level the influence of the fantasy screen runs from being the pivotal support of desirable reality to being the bait which lures us into a trap and leads us to delusion.

Conclusion

If fantasy operated simply and solely contrary to the principle of reality, its products would be nothing but pale imitations of 'real reality', and cyberspace nothing but an imaginary illusion. However, we have seen that the most crucial aspect of fantasy is the space it opens and moulds between 'immediate sensations' of reality and our psychical understanding of it. Fantasy actually is a space in which we as existent beings cannot help but live. Kantian theory depicts the imagination as mediating sensations and reality. In the more psychological approach taken by psychoanalytic tradition on this issue, fantasy implies that the 'immediate' object of desire is out of reach. Freudo-Lacanian theory speaks of the 'lost object'. We always reach out for this object, and today the interesting phenomenon is that the computer screen is perfectly suited for doing so. The lost object causes desire. For the computer screen this means that the 'object' 'behind' the screen, although non-material, can (psychically) function as the cause that generates all sorts effects on the screen that we experience as being part of our reality. For this is what a profound analysis of the screen teaches us: reality is to a large extent a matter of surface-appearances, of (absent) causes and (present) effects. Freudo-Lacanian theory considers reality actually as an effect, and fantasy as what mediates the real (from which we want to detach ourselves, but never succeed in doing) and the virtual as its 'copy'. Man's position is 'in the between': between body and mind, between self and other, between (conscious) ego and (unconscious) subject. Therefore it is not a matter of positing fixed notions of reality and illusion. It is, however, a matter of judging whether there is too much effect (design) in order to screen off too much absence (anxiety, insecurity …). For then the space of fantasy is closed. Or to put it in Kantian terms, as for instance Scruton does, imagination disappears behind (merely imaginary) 'fantasy', with all the pathological consequences that implies. However, normally when the screen maintains its dialectical relation between absence and presence, the (new) effects are integrated into (a new sense of) reality, as most technologies have proven by the fact that their (first revolutionary or disturbing) functions have become a normal element of the world that we live in.

CHAPTER FOUR. TECHNOLOGY AND THE FANTASMATIC RELATION TO THE REAL

Introduction

Are the concepts of technè and *tuchè* which as early as the ancient Greeks were used to cover the two principal 'movers' in our world, applicable to a story about that which is virtual and its relation to the real? I will explore the reach of these concepts within a Lacanian theory of computer(ized) systems and the way those human-computer interfaces relate us to that which is real. As this chapter highlights the relation between technical systems and the real, it is now the time to give a comprehensive and systematical exposition of what actually is the real in Lacanian theory. From this overview, and from the vital tension that the concepts of *technè* and *tuchè* express, I will try to make a crucial conceptual distinction of the two modes through which the computer screen 'psychologically' mediates our relation to the real. Some cases concerning psychotherapeutical application of computers are used to underpin this conceptual exercise.

1. Technology and the real

1.1. Technè and tuchè: the pleasure principle and its beyond

The question whether we live in a 'technological universe' that does not represent the real (the paradigm of the *Vorstellung*) but produces it through technical systems (*Darstellung*) is what I want to reappraise within the context of the ('ancient') relationship of *technè* and *tuchè*. For Aristotle *technè* is directed at creating what is impossible for nature to achieve, and is therefore a creative mediation between nature and humanity (cf. Guattari, 1993, 13). Greek thought in general considers *technè* a concept indicating both the crafts and the arts (cf. De Mul, 1999, 165). The craftsman and the artist both use technical knowledge and tools to produce their work. Besides its creative aspect – which Aristotle highlights – *technè* also (or at the same time) stands for a means to control and shape the world. It aims to control the heterogeneity of the world that the Greeks express in the word *tuchè*: the accidental, chance. This is the peculiar duplicity in *technè*: as a creative process it is also a 'means to shape the world according to our will', as a technical production of things it is at the same time creative. When one narrows *technè* to the aspect of 'machinism' - that is usually treated as a subheading of 'technics' (Guattari, 1993, 13) - it concerns the mechanic production of things. The automaton (the automatic production) and the robot are some of the most well-known and most advanced forms of this production by machine. The virtual realities of cyberspace could be the latest stage of the *technè*, since they combine both art and technology in a specific disclosure of the world (cf. De Mul, 1999). As technological productions the self-representations in cyberspace are, I would say, governed by the pleasure principle. That is what follows when one proceeds from the distinction of *technè* and *tuchè* to Lacan's distinction between automaton and *tuchè* (see S.11, 53-64). However, automatic production – either on a technological or a psychological level – has to deal with the disturbing *tuchè*.

I discussed the interesting path opened up by Norbert Wiener in his *Cybernetics* of considering living beings as machines. Lacan's huge interest in cybernetic theory

explains his use of the terms *automaton* and *tuchè*. Lacan is taken up by question whether the subject of the (unconscious) chain of signifiers functions as an *automaton*. Is the virtual subject (that lives in fictions) a machine governed by the pleasure principle? It can function as an 'automatic pleasure machine' either, directly, by discharging energies via pleasurable images (primary process), or indirectly by binding energies to representations (as in thinking) so that pleasure can be found in reality. To reverse and apply the question at hand, is the subject of cyberspace like the unconscious subject that is freely floating around the World (Wide Web) of signs, not hindered by physical limitations? In this case of 'cyberspace as a dream world' (Suler) the human subject becomes like a robot in the process of mechanical production: merely an 'element of a chain', or of an assembly line (a 'subject of flow production'). Or is this virtualized subjectivity 'anchored' in something beyond the 'automatic machine': personal interests or motivations, fixations, idiosyncrasies … all sort of 'traumatic things' that hinder ones operation as an automatic, submissive machine.[93]

By using the terms *automaton* and *tuchè* Lacan raises a discussion concerning causality. The terms refer to the two modes of causality that Aristotle elaborates in his physics. The *automaton* stands for events that occur as a sort of blind result of external circumstances. Aristotle elaborates for the first time systematically the notion of the 'automatic' (the 'by itself') as earlier used by Democritus and Plato. Plato speaks of a constitutive tension between the proper dynamics of natural processes and the direction that God determines. For Aristotle the causality of chance (*tuchè)* opposes the causality of the *automaton*. Lacan uses the notion of the a*utomaton* to refer to the network of signifiers that functions independently of the (conscious) subject. And concludes:

> "The real is beyond the *automaton*, the return, the coming-back, the insistence of the signs, by which we see ourselves governed by the pleasure principle" (S.11, 54).

Lacan describes *tuchè* as an encounter with the real. And in psychoanalysis *tuchè* presents itself first of all in the form of the trauma: as that what is *unassimilable* in the psychic system (S.11, 55). Hence the psychic system (the subject of the signifier) does not fully function as an (disembodied, neutral) automaton. It (affectively) 'circles' around unassimilable things. Life is not a dream, Lacan says, because of "those radical points in the real that I call encounters, and which enable us to conceive reality as *unterlegt*, *untertragen*, which, with the superb ambiguity of the French language, appear to be translated by the same word - s*ouffrance*.[94] Reality is in abeyance there, awaiting attention" (S.11, 55-56).

We must notice the crucial difference between reality and the real. Reality is 'underpinned': it has an 'understructure'.[95] Reality appears on a screen of a (technological) distanciation from the real ('virtualization'; reality as always already virtual). Yet concurrent with this distanciation is the always-existing possibility that the

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[93] My inclination to call this identification with all sorts of 'personal things' that hinder the striding along of the 'machine', subjectivation - and attribute it a central role in this thesis - already indicates an answer to the questions raised: 'no subject without a symptom'. It (the blow of the real) thus functions as a radical core of resistance (against full virtualization).

[94] Translators note: "In French, the phrase '*en souffrance*' means 'in suspense', 'in abeyance', 'awaiting attention', 'pending'. It is this sense that translates the German word. '*Souffrance*'also means 'pain', of course. Hence the ambiguity refered to by Lacan".

[95] Or to put it in Marxist terms: reality has the real as its (excluded) basis, foundation.

real erupts and breaks through the screen, disrupting (interrupting) our (idealized, sublimated: normalized) picture of reality. This is the (tragicomic) situation of ourselves as 'representative beings', which cannot be elevated into a (utopian, pleasurable, truthful …) final discovery of the real (the 'real reality' behind the mask). The duplicity remains: that is the split subject of Lacanian psychoanalysis. So there is both the virtual subject, and the real as its unassimilable rest or kernel. Fantasy interfaces those two orders, in its most profound functioning *in an original manner*. So there are not two original dimensions (the real and the virtual, 'nature' and 'culture') which must be connected. Rather, the original interface constitutes reality. Our human self-image constitutes us as a human and not as a horse - to use one of Lacan's examples. It is this original interface that allows us to speak of two different dimensions: the real as what disturbs reality, the virtual as what fictionalizes reality.

Fantasy designs the world into a desirable reality; it functions as a screen that designs a world of (pleasurable) surfaces. But it does so in a continuous antagonistic relation with a resisting real (*jouissance*). So the question is:

> "what is the first encounter, the real, that lies behind the [f]antasy?" (S.11, 54).

As such, the screen of fantasy is a window which remains 'in touch' with the real behind its screen; it continues to encounter the real. Before I apply these notions to the computer interface, I will first explain this duplicity in relation to the pleasure principle. For the real is 'beyond the signs, by which we see ourselves governed by the pleasure principle'.

Lacan understands *tuchè* as an encounter with the real that disturbs the functioning of the pleasure principle. We only get to know the real by some sort of arbitrary and accidental encounter that pulls us (momentarily) out of the psychic system that normally mediates our relation to the 'inner' and outer world by means of signifiers. The system of signifiers is a system of mediation, and resembles as such Aristotle's *technè* as a system of creative mediation. *Technè* shapes what is impossible at the natural level. Whereas nature cannot produce a sculpture of a perfect human being, man, with his use of *technè*, can. Similarly, at the level of the signifier man can draw ideal(ized) pictures of himself: in his mind, and 'externalized' in novels, films, virtual personae. As with all idealized formations, man can also get addicted to their technological forms, such as avatars. According to research on the use of avatars among adolescents in South Korea, there is an addictive use of avatars that functions as a cover up of the large and (almost) unbearable amount of stress ('the real of *jouissance*') that adolescents experience in real life (Lee & Shin, 2004)

Psychoanalysis stresses the defensive function of (mental) productions. Lacan's fundamental distinction between pleasure and *jouissance* (see chapter one: § 3.6) expresses this. The signifier mediates *jouissance* and pulls this excessive tension within the limits of the pleasure principle, so that *jouissance* is transformed into a controllable pleasure. The real as what transgresses the homeostatic system of signifiers, is the *cause of repetition*. We not only (destructively) aim at this real in what we call the death-drive, we also try to repeat this (traumatic) real in order to come to terms with it. Thus we see the precarious situation of man with regard to excessive excitement beyond his stabilized self-image. Fantasy tries to keep this situation under control. It not only works (consciously) to create a fictitious realm of signifiers giving a pleasurable alternative of the world: cyberspace as the display-world of fantasy-pleasure cut off from the

materiality of reality. It also functions (unconsciously) as a way to deal with the 'hard core' of reality itself: South Korean adolescents do not immediately see why they involve themselves to such an extent in avatar use. The real that this use of avatars tries to deal with, the high levels of stress that characterize Korean society, might be a soluble impossibility. Therefore it differs from the structural impossibility that Lacan considers the real (mentioned further on in this part of the chapter). Nevertheless the example indicates that the excessive use of avatar is related to a (traumatic) real that the adolescents can hardly cope with, and therefore the avatars are more than just fantasy-toys to play with and have a good time. This example prefigures the general theme that technological fabrications with no relation to the real (a *technè* without *tuchè*) lead to a 'dehumanized' world of simulation. Only the relationship to the impossible real makes fantasy create new appearances of reality. A theory of what is 'real' then obviously is pivotal.

1.2. The encounter with the real

Referring to the four models on the relationship between the virtual and the real (chapter two: § 1.3.), we can ask whether the real is a 'copy' that does not reflect or represent an enigmatic original, but precedes and produces its original: a hyper-real? Characterizing the real as the 'beyond' already presupposes a certain answer to the question whether technological production or design fully determines our experience of the real. Scott Durham discusses this issue in relation to Baudrillard's thought, and we could share his position: "From the perspective of everyday life, the "real" would no longer seem to be on the side of planning, but on the side of the accident; not on the side of operationality and performativity, but on that of malfunction and misfire: it would be that which resists and persists beyond the limited space of the operation" (Durham, 1993, 164).

Because computers resemble speech, or the functioning of the signifier, they produce an 'artificial' magical world: a world as it *appears to us*. Lacan's notion of *tuchè* stresses that the signifier alone cannot account for appearances. Life is not a (technological) dream. And psychoanalysis is not a form of idealism. Appearances must have some sort of relation to the real in order not to tumble into illusions - here Lacan's ontology is consistent with Kant's. Lacan elaborates this disturbance of the ideal (idealistic) world as the encounter with the real. Thus a perspective on the real and the reality of cyberspace is born. So, notwithstanding the striking reality of playing cyber warfare, (American) soldiers return traumatized and contaminated from the Gulf War ('Gulf War Syndrome')[96]. An accidental or insignificant remark by someone else may cause the neurotic who plays an aggressive macho in cyberspace to realize that it is impossible to determine self-reliantly his self-image. The obsessive person who keeps on surfing the Net in order to seek a fulfillment of his desire may at the end realize that 'it' is impossible to find. The (encounter with the) real disturbs the illusion that drives us. 'It' 'does not fit the picture', or it cannot be 'made into a picture' – like the obsessive trying to imaginarily control his (physical) limitations, hence the exhaustion characterizing him. A porn surfer may all of a sudden, 'coincidentally', loose his erotic interest for all the images that rush by (blown out of his 'psychical rush' by some sort of unwelcome and displeasing 'accidental' encounter that pulls him out of his dream). The encounter with the real may lead to the confrontational awareness that – to use Lacan's

[96] The two major theories on the factors behind the disease emphasize chemical agents and stress. However, there is still a debate on this topic; see:
http://www.pbs.org/wgbh/pages/frontline/shows/syndrome/analysis/

words on the obsessive person – we are like frogs that want to be as big as a cow (S.23, 18-11-1975).

The *tuchè*, the *encounter* with the traumatic real, occurs 'accidentally'.[97] In cyber warfare the 'bloody reality' beyond the computer screen (the real) is mitigated ('alleviated') by the techno-fantasmatic screen that keeps the combatants at enough distance - not just spatially but especially psychically - from the victims. By accident, the bloody mess of the victims may come to light. Then we are soon to think up (make up, dream up) a better story of why blood had to be spilled. This shows the position of the (Lacanian) real. It is (as good as) impossible to sustain the pointlessness and injustice of bloodshed. We cannot consciously assume the real ('unconsciously' we may be confronted with it: in a dream, for instance, which turns into a nightmare). So if the real disturbs the picture, we normally create a better picture. Then the symbolic-imaginary screen alleviates the real again: it sustains our desire. The porn surfer who suddenly lost his erotic interest will return the next day when his screen is zipped up again, able to stage the fantasmatic contexts necessary for his pleasure. Žižek holds that the real can only be briefly contemplated when the subject is 'looking awry'. The 'accidental' encounter with the real is something which occurs in the margin (of daytime/consciousness). The neurotic weakling playing the aggressive macho will find it very hard to confront the 'real cause' of his play. This 'real cause' may only appear accidentally - or in the margin of his normal consciousness - and is usually hidden by the screen and pleasure of his imaginary self-representation.

The real is an absent cause. It contrasts Baudrillard's model of hyperrealisation, wherein it stands for a virtual presence that results from systems of production. According to Baudrillard the idea of the virtual comes from the desire for a 'resolution of the world ahead of time by cloning of reality and the extermination of the real by its double'. However, this 'unconditional realization of the world' is impossible because there are always remainders, traces and excesses (cf. Doel/Clark, 1999, 272-273). The real necessarily slips away: it is a remainder, a remnant, and a surplus.[98]

1.3. A historical outline of the real in Lacan's work

What does Lacan mean by the real? In order to cover this notion that plays such an important role in his (later) work and that nevertheless is so hard to grasp, one might first of all take a look at the historical development of this notion in his work. In her overview of the real, Ellie Ragland refers to Jacques-Alain Miller's periodization of Lacan's teachings to cover Lacan's elaboration of the real. In the 1950s "Lacan described the real as concrete and already full, a brute, pre-symbolic reality which returns to the same place" (Ragland, 1996, 192). Lacan points out that it were the stars that manifested first and foremost the *always in the same place* (Lacan, 1988, 238). He illuminates the dialectic between the real and the symbolic when he advances that it is not fully explicable why human beings saw the Big Bear or Orion in a certain constellation of stars. He uses this example to found his theory of the arbitrariness of the

[97] Or it can occur – an interesting second possibility – *as if* it were by chance (cf. S.11, 54). In this second form we can only encounter it in 'formations of the unconscious', disguised, and possibly appearing as coincidental occurrences. One can think for instance of the Jewish people and the role that jokes play among them, in which something about the Holocaust is expressed: hidden, and as if it were without intention.

[98] I will later on elaborate this surplus as the remnant of an original *jouissance*: the surplus of enjoyment (*plus-de-jouir*)

symbol. “The famous *properties of form* [my emphasis, A.N.] do not seem to provide an absolutely convincing explanation of the way in which we have grouped the constellations” (Lacan, 1988, 238). The symbolic is not an ‘analogue’ representation of the real, that Lacan considers in this period as a sort of function of constancy that we must necessarily assume to be lying behind the symbolic formations that are his primary concern. Let us not forget that in this period structuralism reigned supreme and steered his teaching to a theorization of the subject in which the human psyche almost dissolves into a superstructure of symbols with almost no bond to the physical body. In this approach the real is hence less important for the understanding of human reality, which is determined by the big Other of language. From this structuralist Lacan one could possibly extract a post-structuralist Lacan for whom cyberspace would be just another symbolic fiction. But this would mean denying the pivotal notion of the real that becomes increasingly important in his theory.

In the second period of his teaching, the 1960s and early 1970s, Lacan links the real to the Freudian Thing (cf. Ragland, 1996, 195). According to Freud ‘das Ding’ is the aspect of the fellow human being or neighbor that we cannot grasp or understand. Lacan translates ‘das Ding’ into the object in the Other which cannot be signified by the signifying chain , although this chain necessarily circles around it. So there are some similarities with his previous notion of the real as a necessary function of materiality ‘underneath’ the symbolic order. Yet the impact of the real is now much bigger: “*The subject comes into being as a defence against it, against the primal experience of pleasure/pain associated with it*” (Fink, 1999, 95). The real becomes the central element in Lacan’s theory of the trauma. This traumatic element can come from two directions. The trauma can come from outside of ourselves as in the case – albeit in a weak form – of a reprimand that 'awakes' us from our self-satisfied world.[99] Or it can come from within such as deep feelings of affection that paralyze us. The Other (inside or outside ourselves) is confrontational. That is the real aspect of the Other, that Lacan attributes to his former purely symbolic Other.[100] The Other is also a 'real Thing' (imagined in horror movies as a monster or as the alien inside ourselves); “the Thing is “what hurts”, the external traumatic X which derails the closed circulation of the Lust-Ich around hallucinatory objects, forcing the Lust-Ich to give up the pleasure principle and to “confront reality”; yet the Thing is simultaneously the subject’s innermost kernel of his being, what he must sacrifice in order to gain access to “external reality”” (Žižek, 1993, 90). As 'the Thing' discloses an aspect of reality that is unbearable, we must also defend ourselves against its overwhelming impact. Here we meet the defensive aspect of the screen of fantasy.

From the early 1970s until his death in 1981, Lacan aligns his elaboration of the real with Freud’s attempts from the 1920s onward to explain the difference between the sexes. “Lacan taught that psychoanalysis begins at the point where Freud found a dead-end, where the non-rapport between the sexes – the asymmetry or fundamental differences which constitute the masculine in culture or the feminine in culture – is a

[99] Hence one can even use Lacanian thought to strengthen the idea that education takes more than deliberation; man is not 'naturally good'.

[100] This also concerns the field of the material and the fictional. In the previous chapter I focused on the 'materiality' (embodiment) of virtualized reality. The next chapter will explore man's 'substance' (*jouissance*) in virtual reality. Lacanian terminology in its later forms expresses this difference between the fictionality of reality and its 'materiality' in the difference between the big Other as the order of signifiers, and the *object a* as its leftover. In the development of his theory Lacan focuses more and more on the 'remainder of language' (cf. Nusselder, 2003)

reality" (Ragland, 1996,199). The impossibility that the real stands for now seems to be pulled out of the theory of the individual trauma and repositioned in the cultural field as the radical impossibility of reaching the Other, as Lacan indicates with his infamous phrase that 'there is no sexual relationship'. In that they are situated differently with regards to the law and have a different kind of *jouissance*, man and woman will never supplement each other. Although this is one of the most difficult chapters in the Lacanian discourse, it seems to be Lacan's focus on the *jouissance* of the body (the body as a libidinal organism that enjoys) that establishes the radical impossibility of clear communication. The result is that the 'real' of the symptom, the truth it refers to, is not situated so much anymore at the level of its (true) meaning or at the level of original events from which it might arise, but at the level of bodily *jouissance* as a satisfaction of drives. Lacan ends up with a theory that returns to the Freudian libido-theory (and this would be Lacan's final 'return to Freud'), wherein the world of the desiring subject gravitates around drive-fixations. In his final teachings Lacan goes beyond the 'classical' psychoanalytical dualism of signification and satisfaction (Miller, 2000, 30). Signification is enjoyed, or enjoyment is signification: two possibilities of Lacan's category of the "sens joui".[101]

1.4. The real as the object of lost gratifications

This brief review of the development of the real in Lacan's work shows that the category of the real was under a continuous construction. This is not that surprising since the notion of the real is crucial for what is the central concern of psychoanalysis, namely the status of the *object* of the drives and hence of desire. As a desiring being man wants to undo the loss that is constitutive of his existence. Which means that at the level of the drives he wants to regain gratification.

In a general sense, the real relates very closely to what Freudian-Lacanian theory calls 'the lost object', the object of 'lost', 'prohibited', 'impossible' gratifications. As a general theory on the constitution of subjectivity, it surpasses the psychopathological field of the trauma and reaches far into the field of (philosophical) anthropology. As such it does not concern itself primarily, to use the words Lacan's student Serge Leclaire, with the traumatic event but with the traumatism (or the violence or excess) that the 'the lost object' itself causes (Leclaire, 1971, 26-7). The trauma and the defenses (whose interaction bring us close to the notion of fantasy) make up not just the pathological individual. *Everybody* must take a stance with regards to the lack that inevitably hits us as a human being, death being obviously the crudest intruder on our daily existence. With reason Lacan opposes Plato's myth about an existence that the Other can supplement, through his myth of the lamella wherein human existence inevitably goes along with a real loss, namely death.

> "It is the non-representational nature of the real that brings on repetition, requiring the subject to return to that place of the lost object, the lost satisfaction. Every other satisfaction pales in comparison to the one that was

[101] Paul Verhaeghe (1999a) introduces a very effective distinction in Lacan's work. He distinguishes the early Lacan who focuses on the symbolic and the imaginary, from the Lacan from seminar 11 (1964) onward who gives the most attention to the real and the drives (Verhaeghe/Declercq, 2002, 61). I will use this distinction frequently, as it indicates the centrality of Lacan's seminar on the *Four Fundamental Concepts of Psychoanalysis* that I frequently quote.

> lost, and the subject repetitively returns to the site of that absence in the hope of finding the *real Thing*, and yet forever missing it" (Fink, 1995, 228).

When one reads this summarizing quote in a general anthropological (and maybe somewhat 'experimental') way one can state that repetition characterizes life itself. Man keeps on reproducing himself, he keeps on elaborating the same old questions because an answer is lacking et cetera. We even keep on having sex with the other over and over again, because we cannot truly reach him/her: 'Encore'. Because of the failure to say what we want to say we reproduce ourselves (S.20, 109). That is what Lacan is talking about when he says that the sexual relation does not exist. If the sexual relation would exist, Lacan says, we could touch the other at the level of the signifier. But as speaking beings we are solitary. There is no signifier that can present and represent the opposite sex in a pure state. Or it must be at the cellular level: one calls that the sexual chromosome (S.14, 19-4-1967).

A general characteristic of the real is its function as a limit: *the real is the impossible* (S.17, 143).

> "since the opposite of the possible is certainly the real, we would be lead to define the real as the impossible" (S.11, 167).

The real is an impossible presence: impossible to sustain (as in anxiety) or to confront (phobia); impossible to achieve in space or time; impossible to represent or symbolize. With the category of the real Lacan is dealing with_an ontological category that is beyond the constitutive activities of the subject. Not everything that we say or do is the result of our unconscious desire. Desire is on the other hand the result of the distance from the real. Life is not a dream and psychoanalysis not an idealism (cf. S.11, 53). The (return of the) real warrants this truth.

1.5. Every man has his cross to bear: the real loss as trauma

As such a limit-concept the real enters into Lacan's theory of the trauma, enunciated for example in the fifth chapter of *The Four Fundamental Concepts of Psychoanalysis*, where he explains the theory of the *real as trauma*. Freud teaches us that trauma is what cannot be remembered and against which the subject sets up defensive organizations in his psyche. It resists direct recollection and articulation (and thus interpretation). This element of *resistance* is also another characteristic of Lacan's conception of the real. "When the subject tells his story, something acts, in a latent way, that governs this syntax and makes it more and more condensed. Condensed in relation to what? In relation to what Freud, at the beginning of his description of psychical resistance, calls a nucleus … The nucleus must be designated as belonging to the real – the real insofar as the identity of perception is its rule" (S.11, 68).

In this context Lacan discusses a dream described by Freud in chapter seven of *The Interpretation of Dreams*. There Freud recounts of a father who lost his son and went to sleep in the room beside the one in which his dead son lay, leaving an old man to watch over his son. After several hours of sleep the father dreams that the child is near his bed, taking him by the arm and whispering reproachfully: "Father, can't you see that I am burning?". The father wakes up and notices a bright light coming from the other room. He rushes into the room and finds the old man asleep and the clothes and one arm of the child scorched by a candle that fell onto the corpse. According to Freud

this dream is motivated (partially) by the fulfillment of wishes: the father wants to see his child alive once more and therefore is not awakened by the light until after the scene with his son. Although Freud admits that the interpretation of the dream is not complete, it does not deviate from his theory of dreams as wish fulfillments.

Lacan considers this example as a not very steady confirmation of the thesis of dreams as realizations of desire. He sees another function emerging in this dream. The father does not so much awaken because of the light, after having realized his desire to see his son once more, but he awakes because he is confronted *in the dream* with *another reality* that carries more weight than he can bear. Lacan suggests that the words the child addresses to his father – the significance of which Freud is not conclusive about – express the cause of the child's death. Lacan hence focuses on a reality that is more real than psychical reality (the psychical reality of dreams, for instance, which in the common understanding of psychoanalysis is supposed to express our desires and deepest truth). Surprisingly, Lacan states that the level of representations in a dream is not the final dimension of desire. For that is what those representations hide: "The real has to be sought beyond the dream – in what the dream has enveloped, hidden from us" (S.11, 60).

Our mental representations do not analogously represent the 'true reality' of our desire, as desire itself already is an 'association' with (or a way to associate with) a real loss. The real therefore comes to stand for all sorts of experiences of loss that are only retroactively seen as fulfillments. From the real only remain mental traces, memories. It is fantasy that puts down those 'traces of the past' (into 'traces of the future', wherein it imagines the return of the real). Hence desire actually seems to have a nostalgic form. A form that seeks to synthesize the broken fragments of life into a coherent picture (which is a desire - to put it in a Derridean reference to the major streams in anthropology - for God, Logos or Nature). What is nevertheless at stake, is to gain insight in the duplicity of fantasy: as an indispensable (a priori) form of experience, and as an illusory form of experience that – as in nostalgia – holds the picture for reality itself.

1.6. Tuchè animates technè: the two-fold relation to the real of defense and disclosure

When assimilation of this real heterogeneity is impossible, a dialectics of appropriation and expropriation follows. The English language has an interesting equivalent for this appropriation: to arrogate. It throws an illuminating light on the concept of arrogance, which we can describe now as assuming something as real (a real hero, a real writer etc.).[102] The fantasmatic picture that the real threatens to disrupt is at the same time necessary to support desire. Fantasy is a screen that defends against a too direct intrusion of the real. The 'lost object' is pivotal herein.

Lacan's notion of the lost object shows that an absence underlies our normal experience of reality. This absence is an imminent danger that can present itself in a whole series of different modes: anxiety, insecurity, pain, loss of the sense of self, boredom, 'nameless dread' (Bion) … The necessary deployment of a variety of defenses can take pathological forms such as distraction, grandiosity or fixation of self-identity (cf. Emanuel, 2001). We can have reflexive knowledge of the defenses that lie most at the surface (knowing that you are a storyteller), or that we can see at the surface of the

[102] Also the (juridical) synonym for expropriation is interesting: alienation. It shows the original alienation that cannot be canceled out. I will describe this alienation of the subject of the signifier more and more – along with Lacan's theoretical development – as the *inevitability of taking up a particular position or view*.

computer screen (storytelling in cyberspace). However, their most 'tricky' and far-reaching (outrageous, exceeding) influence is at the unconscious level. The association to the encounter with the real is predominantly unconscious. It leads to the *unconscious fantasy*: the 'unconscious motivations' or 'unconscious scenarios' that underlie the attitude of grandiosity underpinning the imagination of being a 'real hero', of living in a 'real city', of having found the 'real me' in cyberspace ….

In the first chapter I claimed with Peter Weibel that on a psychological level technologies function to overcome (mental) insufficiencies. When considering the real as the (absent) cause of repetition, we must not forget that Lacan discusses the question of the encounter with the real, the *tuchè*, in the setting of the analysis of repetition. "Only a rite, an endlessly repeated act, can commemorate this not very memorable encounter" (S.11, 59); "it is necessary to ground this repetition first of all in the very split that occurs in the subject in relation to the encounter" (id., 69). All sorts of 'repetitive acts' (jokes, dreams, tragedies, stalking …) function as an envelopment, a psychic formation, of something (an experience of loss *or* of ecstasy; such as death or an impossible love affair wrapped around in the scenes of a tragedy) that we cannot integrate (at once) into normal psychic functioning.[103] The umbrella name for the 'affects' that go along with the threatening 'things' is anxiety. A characteristic of the human-computer interface is that, at a psychological level, the viewer is in a position of screening off anxiety. Video games exemplify this. "the video game is a psychodynamic process of projecting and managing internal threats … Video games can thus be understood as a paranoiac environment that induces a sense of paranoia by dissolving any distinction between the doer and the viewer. Driven by the structure of the video game, the player is constantly defending himself, or the entire universe, from destructive forces. The play becomes a compulsive, pleasurable repetition of a life-and-death performance. Yet the player's anxiety can never be finally mastered by that vicariously dangerous play. He engages in a characteristic repetition, often described as 'video game addiction'" (Robins/Levidow, 1995, 122). This explains why, since we cannot master the real, we are in a continuous process of repetition (of trying to do so), which may in excessive cases lead to an addiction to the screen.

Also the subject of hypertext perfectly illustrates this role of the computer interface as a medium for a repetitive psychic envelopment of the real. In his essay 'Conclusions' Terence Harpold diagnoses the hypertext reader who continuously passes on ('flows on', 'flies on') from one link to another and is, like an obsessive personality, endlessly searching for the perfect result. Hence the hypertext reader (ritually) denies that there is no link that can provide him with what he is looking for. His actions are a way to screen off the truth that there is no object that corresponds to his desire. It is

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[103] One is tempted to state here 'not yet' instead of 'not'. For it is with the integration (d.i. acceptance, recognition) of the loss that the compulsion to repeat must evaporate. Someone might stop stalking his former lover when he accepts her departure. However, is it possible to integrate the loss of life, death? The Lacan of the 1950's with his major influence by Heidegger's notion of 'being-towards-death', seems to move far ahead towards the idea of an 'egoless subject' that through symbolic (Hegelian) recognition can remove almost all obstacles of the ego. Yet it is not some sort of Buddhist enlightenment in which the subject integrates all otherness through the loss of its own self. The imaginary order of libidinal investments in objects still contaminates the recognition of ourselves as a play of symbols. "Don't, however, get the idea that the ego volatilises after an analysis – be it didactic or therapeutic, one doesn't go to heaven, disembodied and pure symbol" (S.2, 325). As a result of this 'contamination' of a purely symbolic communication a strict informational conception of the 'mind' is incomplete, as we saw in Lacan's discussion of cybernetics.

exactly against this awareness, which is in the end an awareness of the truth of death and finitude, that the obsessive person tries to defend himself with his fantasmatic idea that he can control time and death (Harpold, 1994, 208). He believes that the Other has an object offering what he is longing for: he believes in the promise of closure, of satisfaction, that founds the links. "The hypertext reader reads the texts as would an obsessional, insofar as he believes in the link, in its promise of a relation between lexias, and, ultimately, in the closure, saturation or saturability that founds the links as a navigational tool … Returning again and again to confirm the possibility of closure means refusing the gap in the field of the Other by replacing it with the positive term of the reader's own occultation within the narrative. Like the obsessional, the hypertext reader is compelled by the double bind of a forced choice … This double bind is, I think, the source of unease on the part of many readers concerning the equivocal closure of hypertexts. It seems that you can never finish reading these documents, because you can never quite get what it is you seek. There is always more to read, more to uncover, without actually getting the thing you're reading for" (Harpold, 1994, 209-210).

We find here the relationship between fantasy and the real. The fantasmatic screen protects us against (a too direct an intrusion of) the real. Thus we put together (draw up, make up) the real fantasmatically: in all sorts of ideas, convictions and ideals ('the promise of closure'). The obsessional rituals emphatically give proof of this process. This is Freud's so called crystal principle, wherein the broken crystal – pathology – shows the lines of fracture in the normal condition. For Lacan too this 'defensive formation' of the real is a basic process. As the real is unassimilable, there is a point where interpretation bumps on the 'hard core' of psychic reality. Where Freud finds something that he calls the ‘navel of the dream’, Lacan discovers the relation to an ininterpretable real. In his famous case of the Wolf Man Freud leads the obsessional neurosis of his patient back to the centrality of his patient’s dream about wolves. In that dream wolves suddenly appear in the patient's bedroom window. According to Freud – via a long way of interpretation – this refers to the incomprehensible ('real') primal scene in which the child sees its parents copulating. For Lacan those representatives (the wolves) function as a representative of the subject’s encounter with the real. They are pivotal in the psychic life of the Wolf Man, although they are not ‘analogue’ to or deducible from ‘real reality’. They are composited from different elements in order *to represent*, and at the same time *to cover up*, a traumatic event. Psychic reality – that is Lacan’s radical thesis – always is a composing, a putting together (a ‘drawing’, ‘editing’) of the real. As the real does not cease to resist, truth, as what relates to the real, is that ‘what does not cease to inscribe itself’ (S.20, 55).

When one considers the encounter with the real as something that disrupts our normal picture of the world, but simultaneously causes or calls for a new invocation or evocation of it, the *tuchè* is also the source of the *technè* as a system to disclose the world. Heidegger understands *technè* as such a disclosure of the world: it brings forth beings into the unconcealdness of their appearance (de Mul, 1998, 166). *Technè* is then closely related to creativity and the work of art. A creativity – as Lacan would have it – animated by *tuchè* (which can then be seen as a variation on Plato's notion of the *tuchè* as a divine intervention in the automaton of natural processes). The elimination of the *tuchè* thus undermines creativity. Virtual Reality seems to have a strong tendency to eliminate chance and the unexpected by anticipating as much as possible (cf. Krueger, 1991, 189; and remind Rifkins analysis of the digitization of time as a programming of events). And with this loss of the *tuchè* the creative aspects of reality could also

possibly get lost. In his 'Plenitude and Alienation: The Subject of Virtual Reality' Simon Cooper analyzes the relation between Virtual Reality and creativity. He borrows his theoretical framework a.o. from the neuro-biologist Francisco Varela, who examines chaotic elements from outside a system producing generative breakdowns from which new microworlds may emerge. "Thus 'noise' is not the restriction of creativity, but its underpinning" (Cooper, 1997, 102). The technological filtering of the environment is not merely an advantage that enlarges our capabilities. "Our consciousness may function like a filter, but the important difference is that the environment it engages with has not been filtered in advance. In the virtual environment, the chance operations that generate creativity are severly restricted by the design decisions needed to make VR a convincing illusion in the first place … The experience of loss or crisis that might send the subject on a purposeful activity is denied by the technology that attempts to render a world of full presence. The significant reduction of 'noise' works to stifle rather than enhance purposeful activity" (Cooper, 1997, 102).

We are in a two-fold – 'split' – relation to the real. Lacan emphasizes this division of the subject in its encounter with the real: "we see here a point that the subject can approach only by dividing himself into a certain number of agencies" (S.11, 51). We necessarily keep the (traumatic) real at a distance; we design to eliminate the encounter with the real (as in VR). But at the same time it is the momentary encounter with the real that prevents us from taking the 'necessary illusions' for reality itself, and thus allows for a renewed (renovated, 'updated', revived, rejuvenated, remoulded) disclosure of it. [104]

2. The fantasy-interface as a screen

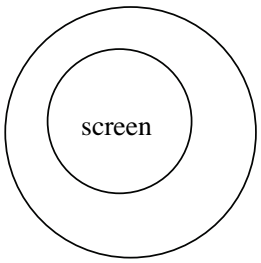
2.1. The screen and the shield

In the years that followed his discovery of the importance of fantasies in psychic life, Freud was taken up by the problem of memory and its distortions (through fantasies). In 1899 he publishes his findings on the defensive functions of some memories ('Screen memories', *S.E.* 3, 303-322). He advances the idea that some memories intermingle elements of memory – although in general detached from their contexts – and elements of fantasy. Although they defend the subject against the memory of a traumatic experience, they nevertheless express the infantile element that is so emotionally charged, by concentrating it on a fixed and objectified form (cf. Perron-Borelli, 2001, 22). Since memory is not a perfect machine of representation of facts or original events, Freud compares it in a later text to a children's toy called the mystic writing pad ('A Note upon the 'Mystic Writing Pad'', 1925; *S.E.* 19, 227-232). This toy consists of a thin

[104] In order to start a description of a 'Lacanian' position of the relation between the virtual and the possible (see chapter 2, part 1), I want to remind that Lacan defines the real not as that what can become possible, but as that what is impossible. The real as the cause of repetititive symptoms, and the real as the object of anxiety expresses most clearly its (traumatic) presence that is impossible to remember or to endure. This real that cannot realize or actualize itself is both the cause of virtualization (of distancing ourself from the trauma: 'talking about the trauma', 'rewriting the past'), as its limit: we cannot completely distance or detach ourself from it; it remains our inner core that we cannot liberate by bringing it out into the open (light). What brings Lacan closer to Peirce and Deleuze than to the scheme they criticize is the fact that his notion of the real obstructs a realization of our 'true nature'. Therefore we are necessarily 'astronauts' that explore new spaces. However, what is absent in (post-modern) Deleuzian thought is – as Žižek often stresses – the notion of the real as a limit to the virtualization and the construction of reality.

sheet of plastic that covers a thick waxen board on which one can write with a pointed instrument. In the wax then appears a dark trace that can be removed by lifting the sheet. For Freud this shows the psyche's recording of material. Memory covers a continuous rewriting of events, of which only traces remain.

Lacan often calls fantasy a screen, thereby stressing its defensive function. In its psychical dimension, reality appears through some sort of sublimation, idealization etc. Psychical reality is a certain mise-en-scène. The real, that underlies it, is therefore only accessible via this fantasmatic screen. Lacan exemplifies this theory by referring to perceptual experiments in which one can only see an object whose ray of lights blind us, through a screen that mitigates their impact. "I alluded to the reference given by Maurice Merleau-Ponty in *La phénoménologie de la perception* in which, from well-chosen examples based on the experiments of Gelb and Goldstein, one can already see, simply at the perceptual level, how the screen re-establishes things, in their status as real. If, by being isolated, an effect of lighting dominates us, if, for example, a beam of light directing our gaze so captivates us that it appears as a milky cone and prevents us from seeing what it illuminates, the mere fact of introducing into this field a small screen, which cuts into that what is illuminated without being seen, makes the milky light retreat, as it were, into the shadow, and allows the object it concealed to emerge. At the perceptual level, this is the phenomenon of a relation that is to be taken in a more essential function, namely, that in its relation to desire, reality appears only as marginal."



reality is marginal

(S.11, 107-8).[105]

We compose reality around the fundamental relation to the real object of desire. That 'what one cannot name' (in love, in art …) motivates the efforts to appropriate this 'object' and leads to its phenomenal construction. Lacan expresses this pivotal notion in a number of ways. He speaks of the real as a hole in reality that fantasy fills. Also his description of the real object (*a*) of desire as the semblant of being expresses this notion of the fantasy-screen that mediates the real; the fantasmatic object supports being (S. 20, 87). As an ontology his theory brings forward that we only know the appearances of being. Nevertheless, the subject is more than an (idealistic) projection camera. Our subjection to the Other is not the only structuring principle that determines the

[105] Amorousness may illuminate this screen. One does not dare to look the person that causes the amorous feelings straight in the face, and one's regard hence dwells with all the persons that surround her/him who are not so emotionally charged. This 'neutral surrounding' is then indeed marginal compared to the 'object' one fantasizes about.

appearances of reality. Reality also takes shape in our relation (or fixation) to an inaccessible real.

In his 1956-57 seminar Lacan compares the functioning of fantasy to the frozen image of a film projection that has been stopped (S.4, 119, 157). This functioning is most explicitly visible in fetishism, which halts or fixes the chain of memory at a certain point called the 'memory-screen'. What for Lacan constitutes the fetish, the symbolic element that fixes the fetish, derives from the scene just before the traumatic perception. The fetish is a screen against the traumatic real. The projected image of the fetish is the limit where the recollection of history is interrupted. It is the sign of the point of repression (S. 4, 158). Lacan recalls one of the first examples of Freud's analysis of fetishism (in 'Fetishism', 1927, *S.E.* 21, 152-157), on a man who spent his childhood in England. Later on in his life, when he lived in Germany, he always sought 'ein Glanz auf der nase' that he subsequently tried to peep on. The German expression transposes the English expression 'a glance at the nose' that kept on coming across his mind since his first years (S. 4, 158). Lacan stresses the importance of the linguistic dimension in the analysis of the fetish (the homophony of 'glance' and 'Glanz' that leads the man glancing at a 'Glanze', a shine or gleam, at the nose). Furthermore, signifiers that mark the limit of his recollection (for it is this phrase that he can recollect from his first years) mould his fantasmatic scene. In his discussion of Freud's text 'A Child is Being Beaten' Lacan thus brings forward that also the perverse fantasy (not: perversion) reduces the course of history to an instantaneous state (S. 4, 119). It projects, or freezes, one's desire into an object: 'that thing is what can satisfy me' – objectivation of desire.

This line of thought on perverse fantasy, that fixates desire onto a certain object and thus screens off from its infinity, make the interpretations understandable that consider the computer as a fetish-object. All sorts of symbolical associations link up with the computer(culture). The computer is seen as an object by which one lives 'at the frontier of new developments', a trendy and 'fast' lifestyle etc. This is the socio-symbolical aspect of self-representation: tying ourselves to the symbolical big Other of computer culture. The computer can also create 'in the concrete' (that is to say not via associations with a cultural meaning, but via direct reflection) a 'better' or more agreeable self-image, as the issue of self-presentation on the screen attests to. Then the screen is a predominantly imaginary other. In any case, this symbolic-imaginary formation, or fixation, of (a more pleasing) personal identity, makes the computer function as a (fetish)screen screening off uncertainty, anxiety …: 'blankness'. From the psychological perspective the world of signifiers of cyberspace functions as an automaton, a self-regulating mechanism that works according to the pleasure principle in making the excesses of excitement manageable. It is a new realm of fictions that helps us to manage the problems of 'real life'. The role avatars play for South Korean adolescents illustrates this. For Cathryn Vasseleu "cyberspace is also a domain with its own breeds of automata which, for brevity's sake, I call *cybernetic automata*. I use this term to include all kinds and combinations of physical and virtual environments and 'agents' that feature cybernetic feedback, procedural and information systems" (Vasseleu, 2002, 86). Computer-objects allow us to control and manipulate the world, to make it 'emotionally safe'. The computer in general is an object par excellence to gratify – at (inter)face value – our desires, and thus to keep the uncontrollable outside world at a distance (cf. Barglow, 1994, 128). The automatic repetition of the self, objectified on the computer screen (a digital avatar), can disconnect the self from 'real life' and lead to a life in accord with the pleasure principle (no detour). The excess of computer

addiction illustrates this screening off of the other and the outside world (cf. Wassenaar and Van Doorn, 1998, 359). Another case, that of phobia, also shows this effort of eliminating the *tuchè*.

2.2. The screen as principally defensive: phobia, and its computerized treatment

As a defense of anxiety the computer screen can function similarly to the phobic-screen. Lacan discovers similarities between the fetish and the phobic object in that both are symbolic-imaginary substitutes for a threatening presence (cf. Evans, 1996, 148). Then the example of Virtual Reality treatment of phobias becomes all the more interesting. Usually therapeutic use of Virtual Reality for phobias takes the form of exposure therapy: the phobic patient is exposed gradually to the feared object or situation. Research shows that little by little the fear of the phobic patients diminishes as they become accustomed to and more or less comfortable with, for instance, spiders or social environments.[106] This in vivo exposure therapy is a combination of cognitive therapy, that teaches people to think differently (about spiders), and behavioral therapy that seeks to recondition the phobic reaction to the feared object by unlearning the learned stimulus-response reaction to it (desensitizing the subject).

But does Virtual Reality treatment actually expose the patient to 'the real thing' that causes his anxiety? The Human Interface Technology Laboratory, for instance, states: "With *in vivo* (in life) exposure therapy, under a therapist's supervision and guidance, rather than avoiding it, the phobics slowly approach the thing they are afraid of in the real world."[107] In the context of my exposition of Lacanian theory so far it is no surprise, that this theory leads to a 'deconstruction' of the notion of the object in the 'real world' as used here by cognitive theory. Both theories make different claims. The cognitive stream in psychotherapy that guides most Virtual Reality research explicitly states that its therapies are not Freudian. However, from a 'Freudian' perspective one must make the crucial observation that the object that Virtual Reality therapy exposes the phobic to is not the real object of his anxiety, but already its fantasmatic (and defensive) formation. That is, at least, what follows from Lacanian theory regarding phobia.

In his 1956-1957 discussion of phobia, Lacan argues that the phobic object is a fantasmatic construction protecting against anxiety (S.4, 23). The phobic object screens the subject from the real object (the anxiety inducing void) and thus turns *anxiety* into a *fear* focused on a particular object. From a Lacanian perspective it is therefore more accurate to say that Virtual Reality exposes the phobic to the object of his fear instead of the object of his anxiety, as the phobic object is exactly what turns anxiety into fear by focusing it on a specific object! Thus the Virtual Reality screen – not just from the material perspective from which it is obvious that the material spider is not present, but also from the 'psychological' perspective – is similar to the psychic screen in that it exposes man to a fantasmatic substitute of the real thing. The computer screen is hence predominantly a defensive screen against the object of anxiety, and – which is the most important point – does not actually start an 'interaction' with the real object of anxiety. VR treatment mainly focuses on getting the subject accustomed to the particular image that (on the phenomenological level) seems to cause his fear. Although also Lacan acknowledges that this 'imaginarization' or visualization is already a way to make the

[106] Cf. the issue of *Cyberpsychology & Behavior* (vol. 6, nr. 3, 2003) on CyberTherapy; and Carlin et al (1997) on the first case study of treating spider phobia with Virtual Reality exposure.
[107] http://ftp.hitl.washington.edu/projects/exposure/

traumatic situation livable, and as such is an inevitable and even necessary aspect, the *sole focus* on the imaginary aspect hinders the transformation of the defensive screen into a window that actually is in a (of course also imaginary mediated) relationship to the real. When the object appears as in a 'window' (an image as a framework for viewing the real, composited of different elements instead of being an imaginary reflection) there are different 'visualizations' possible (an element of the 'spider' turns out to be the grimace of the father etc). In such a process of 'working through' there is hopefully in the end an 'exhaustion' and a 'dissolvation' of the phobia (cf. S.4, 402). While the phobic image remains as a 'screen' that one must get accustomed to, one is still fixated on one particular imaginarization of desire.

3. The fantasy-interface as a window

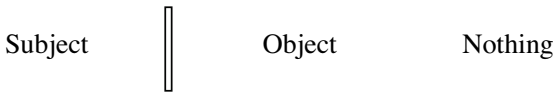
3.1. The scheme of the veil

In order to understand the twofold function of fantasy (defense and disclosure) it is crucial to have a grasp of the fundamental phenomenon in psychoanalysis: anxiety. For Lacan anxiety is – as stated – an affect, and not an emotion. Furthermore: it is the only affect that is not deceptive (cf. S.11, 41). That is, it is an affect with a real object. The real as the *object of anxiety* implies that nothing is as bad as *not missing* the 'real Thing', that is to say getting it. In his theory of anxiety, especially as put forward in his 1962-63 seminar of the same name, Lacan polemizes with other theories by stating that anxiety *has* an object. Paradoxically, this object of anxiety is the lost object of desire. So anxiety occurs when we are not enough at a distance – 'separated' – from the object of ultimate pleasure which simultaneously annihilates us as a singularized subject (where pleasure topples into *jouissance*). It is not the absence of the object of desire that causes anxiety, but its proximity! It is on this point that he differs from Freud: "whereas Freud posits that one of the causes of anxiety is separation from the mother, Lacan argues that it is precisely a lack of such separation which induces anxiety" (Evans, 1996, 10). Anxiety arises when the real approaches too close by, because then the gap (of desire) evaporates: the dream turns into a nightmare. The anxiety Lacan analyzes thus seems to be a 'psychotic anxiety', a fear of losing oneself, which can occur when nothing is lacking anymore: anxiety is the lack of lacking. I will give some examples. When I try to objectify myself completely by ceaselessly staring into the mirror (or endlessly try to think out who I am), I may get to a point where I no longer do know who I am. Furthermore, there is the well-known idea that it might be more horrifying to obtain the 'real Thing' of eternal life than not to have it. Anxiety indicates that the distance to the emptiness that causes desire is about to disappear, and fantasy's mediation of the real is at the point of collapsing. As Lacan argues in his 1960-1961 seminar on transference, desire is therefore a remedy for anxiety (cf. Evans, 1996, 11). Once again: it is not the fact that there is an emptiness that causes anxiety, but the non-mediation of the emptiness. As long as we form or create the emptiness on the screen of fantasy, we desire and thus keep anxiety at a distance. Fantasmatic desire is a (necessary) medium.

Love, as a form of desire, is a remedy for anxiety, by giving an imaginary-symbolic form to the object of desire that one can never fully assimilate. As such, it is a source of creativity, and the libidinal motivation of our odyssey through the world. In love there is a symbolical relation to what one cannot grasp. What we love in the other,

Lacan says, is something that lies beyond the qualities of the other (in his seminar on transference Lacan develops this notion of the object-cause of desire as the *object a*). In his exposition on 'The function of the veil' in his fourth seminar he (still) thinks this beyond as 'nothing' that we can present only symbolically. That is, we can only speak about what it is that we love in the other, without actually grasping it. We can merely imagine it: think of all the sonnets dedicated to love. Since we in this manner inevitably introduce something of ourselves in the description of the other, love necessarily has a narcissistic structure (cf. S. 11, 186). But this imagining is necessary to install a relation to this beyond: no symbolical relation (with absence) without the imaginary (S. 4, 157). All of man's symbols testify to this; even the computerized symbol for crying [:'-)] cannot do without its imaginary origin when it depicts a teardrop.

Phenomena like fetishism and love bring us to Lacan's scheme of the veil:



Veil

(S.4, 156)

The veil is that on which the absence can 'paint' itself, where one can project and imagine it. Lacan uses one of the most fundamental images of man's relation to the world, the 'veil of Maya', to express this relation of interposition. This veil is a powerful metaphor to express the relationship of man to everything that captivates him, for there is "a certain fundamental illusion in all the relations that are interweaved with his desire" (S. 4, 155; *m.t.*). On the veil the object can take the place of the lack.

The human-computer interface can also function as such a 'veil' on which we imagine what is beyond our capabilities or limitations. Since this structure is, according to Lacan, characteristic of reality itself, the computer interface is perfectly suited to be a medium for extending our awareness of reality. The point is, as we saw in the exposition on phobia, that from a Lacanian point of view one must evaluate this 'imagining' in relation to the 'truth' of desire which is that there is no (stable) object that corresponds to it and gives us a firm basis. For one thing, love illustrates that desire can lead to a continuous creative disclosure of reality. For another, the fetish and the phobic object show that – although Lacan does not evaluate those phenomena purely negatively since both also are ways, albeit provisional, to make a traumatic situation livable – our interfacing with the world can also be predominantly defensive.[108] Man can have different motivations for entering cyberspace (see chapter 3, part 4). Does he want to fully turn in on himself (cyberspace as the space for the Leibnizian monad that realizes the – godlike – desire of temporal simultaneity, 'everything at the same time', 'no delay', cf. Heim, 1994, 95; and 'Cyberspace, Or, The Unbearable Closure of Being', Žižek, 1997)? Or does he actually want to engage in new forms of interaction and communication with the Other? That is, is he closing being by merely ('consciously') fantasizing, or disclosing being ('unconsciously') by means of new frameworks or windows?

[108] The most unforgivable error is, thus Lacan, that of 'good faith'. That is, as Miller explains, to take one's desires for realities and being the slave of one's fantasy. What causes the error of 'good faith' is enjoyment: the *sens joui* of fantasy (Miller, 1999a, 11). S*ens joui*: enjoying the meaning that fantasy provides. In 'good faith' one enjoys it to such an extent that fantasy seems to be reality itself.

Crucial to the understanding of the 'productive' aspect of fantasy (fantasy as a window) is its functioning at an unconscious level. At first sight fantasy is a defensive stand-in formation of the real (the fantasy of the automaton, or of automation, of automatic production: everybody happy, wealthy … the promise of the cyborg). But unconsciously fantasy *does* relate to the real, and seeks to give it shape. [109]

3.2. The unconscious fantasy

In his 'Transference among People Online' John Suler emphasizes a sort of 'unconscious homing device' that seems to determine much online behavior. People often start the same kind of relationships online. "Unconscious motivations related to the transference will also affect the "filtering" process that determines the choices the user makes in establishing relationships. Users may be surprised to find that the close friends they make online all seem to be the same types of people, even though this was not immediately obvious at the start of the relationship. This unconscious "homing" device can be very sensitive. Even when communicating only via text and in cumbersome or distracting online environments, we nevertheless zoom in on relationships that touch some hidden need within us." (Suler, 1996). Also the construction of virtual self-images by means of avatars seems to attest to such a 'homing device': the kinds of avatars people use to represent them are not irrelevant (cf. Suler, 1999a). Lacanian analysis emphasizes the function of signifiers in this 'unconscious homing device' (this 'homing towards the real'), because unconscious signifiers determine the image or the other that we 'choose'. What Lacan calls the 'illusory object' plays its role as a signifying function. Thus we can reach further into the understanding of why, for instance, a female's shoe can provoke in a man the emergence of sexual energy that would seem to be destined for the reproduction of the species (S.5, 229). Fantasy is not solely a matter of the drives and their 'innate' images, but very much of the signifier (the symbolic). It is the signifier that 'bridges' the subject's current representation to the real (as certain phrases or partial images are pivotal in someone's avatar, and 'interface' this 'imaginary illusion' with the real of his desire). The crucial signifiers of someone's life (unconsciously) determine why someone constantly inclines to the same relationships or same fantasy-images of himself. Because of this determining role of signifiers, fantasy is unconscious. Lacanian analysis tries to expose those signifiers that have shaped the fantasmatic construction of the object.[110]

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[109] Lacan's notion of fantasy continues to bear a resemblance to Freud's 'central usage' of providing pleasure after the installment of the reality principle. Of course fantasy organizes pleasure. The whole point is, however, that this pleasure is not simply a conscious construction of the ego that thus seeks hallucinatory compensation for its deficiencies. There is an unconscious element in fantasy: we unconsciously try to refind forms of pleasure that we inevitably lost in the process of individuatization (and this effort of refindfing a 'feeling' that we lost may generate feelings of displeasure; as might be the case for instance in the enormous effort 'to make a career' in order to 'become someone'). It is the unconscious subject – of the signifier – that determines the formation of the fantasy.

[110] In her text on 'The Drive' Marie-Hélène Brousse analyzes speech as a demand, and how the the signifier of the Other's demand defines the subject. She gives the following clinical example. "I have a patient who is grappling with her mother's desire because she can't decide whether or not to have a baby. In reference to her mother's desire she can only remember one sentence. It's a memory of her mother being furious with her children, running after them and saying, "I'm going to kill you." The signifier of her mother's desire is "I'm going to kill you". In a sense, my patient was constituted on the basis of those signifiers, to kill a child. It's her interpretation of the Other's demand. The Other's demand is "die!" " (Brousse, 1995, 109-110).

Lacan expresses this steering aspect of the signifier in the formula of fantasy that he uses from 1957 onward: S<>a. Fantasy consists of heterogeneous elements; it connects the *libinal* (the *object a* of enjoyment) to the *symbolical* (the subject of the signifier).[111] There are three dimensions in fantasy. There is the enjoyment that dominates, the images that cover up, and the signifiers that work (Nasio, 1987, 147; Ribettes, 1984). Lacan's second paradigm considers fantasy as more than the 'internal images' to which the drives are attached. From his fifth seminar onward, Lacan understands fantasy also as a *scenario* (cf. Miller, 1999, 11). In a scenario it is about a *play* of images. When fantasy is a scenario, the image is subjected to the play of the signifier.

The case of 'A child is being beaten' which I discussed earlier shows that conscious fantasies mostly root in unconscious ones, they are governed by or the result of the logic of the unconscious. According to Marshall Edelson the 'logic of fantasy' that Freud emphasizes in this text is like "the kind of changes in a fantasy that are like those an author might make in a script. What we have here are … different wishes and beliefs, and often providing in the imagination both protection and gratification simultaneously" (Edelson, 1988, 189). Where Freud discovered the laws of the primary process (condensation, inversion etc), Lacan poses the laws of the symbolic (grammar, syntax, combination, substitution). For Lacan, Freud's analysis of the mentioned fantasy of fustigation shows the transformational grammar that directs the elementary structure of the unconscious (cf. Ribettes, 1984, 190). Transformation is proper to fantasy (Perron-Borelli, 2001, 124). Of these the (dual) transformations of turning the active position into the passive (and inversely) is the most important ('turning against oneself', 'turning into the opposite'; the drive attains its goal via a modification of its activity[112]). There is also projection (I project onto the other what is coming from myself: 'she is in love with me instead of I'm in love with her') and substitution (one object or activity is substituted for another).

Bringing Lacan's theory of fantasy into the 'Controversial Discussions' mentioned earlier (chapter 3: § 2.3.) might help to summarize its position. Lacan refines the 'Kleinian' opposition between conscious *f*antasies and unconscious *ph*antasies, from his own (early) theoretical framework. It is impossible, he says in 1958, to usefully distinguish the unconscious fantasies from the play of imagination if we do not see that the signifier structures the unconscious fantasy (S5, 252-253). Fantasies are unconscious because signifiers from the realm of the Other, and their laws, structure them outside our conscious awareness: the fantasy-image is 'set to work in a signifying structure'. That differentiates them from conscious constructions by the ego for gaining pleasure (although also this play of imagination may be the more acceptable version of unconscious fantasies). For Lacan one cannot speak of a 'true reality' of the content of primary mental processes: there are no original and primitive objects that correspond 'naturally' to our 'deepest wishes'. The substitution of reality by means of the signifier is original. "The objects are already, if I may express me that way, *signifiered* (*signifiantisés*)" (S5, 253; *m.t.*). Fantasy puts those objects again together out of signifying elements. It tries to regain the (lost) objects that we desire, which do not exist

[111] Thus, and this is the basic theme of the next chapter, there is a virtualization of *jouissance*: for human beings enjoyment is mostly not a brute act of consumption but organized by and within the limits of the symbolical order. So Lacan's formula of fantasy expresses the crucial notion that *signifying elements bring the enjoyment of the fantasy-object (a) on a symbolical level.*

[112] Freud describes this in his 'Instincts and Their Vicissitudes' (*S.E.* 14, 117-140).

as such as they are already dissolved into signifying elements. From the 'object' that my nostalgic desire longs for, only bits and pieces remain, which form the 'material' for fantasy to reconstruct the object (sounds, images, sayings …). Those signifying elements are the 'material' of the unconscious; they belong to the domain of the Other. The fantasmatic constellation of signifiers creates a certain window upon reality (and here we are again at a previous thesis on the functioning of metaphors as a window upon reality). Fantasy as such a window shapes the object of desire (*object a*) by means of signifiers coming from the Other. We shape the object of our desire by means of images and signifiers that we do not consciously choose.

With a reference to Freud's notion of the 'overdetermination' of symptoms – they never have simply one cause but are a 'composition' – Lacan brings forward his fundamental idea of language 'multiplying' the object of man's needs and demands. As it detaches us from the immediacy of the need, language opens up the space of multiple imaginary scenes that shape the object. The (One) *object* of desire thus disappears into a multiplicity of *scenes*.[113]

> "It [the overdetermination of symptoms] means that interference will occur between the effects that correspond in a subject to a particular demand and the effects of a position in relation to the other (here, the counterpart) that he sustains as subject. 'That he sustains as subject' means that language allows him to regard himself as the scene-shifter, or even the director of the entire imaginary capture of which he would otherwise be nothing more than the living marionette. Fantasy is the perfect illustration of this original possibility. That is why any temptation to reduce it to the imagination, because one cannot admit its failure, is a permanent misconception, a misconception from which the Kleinian school, which has certainly carried things very far in this field, is not free, largely because it has been incapable of even so much as suspecting the existence of the category of the signifier. However, once it is defined as an image set to work in the signifying structure, the notion of the unconscious fantasy no longer presents any difficulty" (Ec., 272) [translation changed][114]

The signifying material of the Other governs or possesses the Self and 'deconstructs' its autonomy. This material actually constitutes the framework wherein the conscious fantasy operates. Fantasy as a construction of the ego for gaining pleasure is, for the most part, governed by 'material' that functions as its building material: for my construction of an avatar on the Internet I use signifying material. Although I may *think* that the avatar is fully at my choice, I am already in the unconscious because of the use of all sorts of signifying elements (that are not my own). This is the strict, *material* sense of the unconscious: it is not a 'content' but a 'form'. In his psychological investigations of such mediamatic self-representations, John Suler tries to give a meaning to those (material) unconscious elements by letting people talk about other

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[113] Conjoining these ideas to the issue that digital media transform the *object* into an *interface* may explain why the computer interface and cyberspace, as domains of the signifier, are media for the rediscovery of the *object* of man's desire: they provide all sorts of desirable *scenes*.

[114] The translator uses the (Kleinian) term phantasy to translate the French word 'fantasme'. In order to avoid confusion I will use the word fantasy instead, as I will do in all texts cited from the *Écrits. A selection*

people's avatar and their own: Avatar Free Association (Suler, 1997a). Also the images and elements of new media can be used to shape unconscious desire.

3.3. 'Interactivity': the screen as a window or frame

For Lacan, the window of fantasmatic identification frames our looking and constitutes us as beings of desire. Without it our partner would not appear as someone with whom we would like to share our life. And it causes the car to be something more than an appliance: it also organizes a way of living, a way we see the world. In the philosophy of technology, the car must frequently illustrate the shortcomings of the instrumental vision. Roland Barthes calls cars the 'cathedrals of modern times' for they are, like cathedrals, symbols of culture that express our feelings and desires. The car not only transports us through an objective reality, but also changes reality: it discloses new spaces (and closes old ones), spaces wherein we exist. The car is a *framing* of reality. Through its windows reality *appears* in a certain way, by putting us in a certain *position* towards the real beyond its screen: a position of autonomy, individuality, mobility (and its current excess: immobilizing traffic jams).

The cinema is of course another famous framing of reality. The camera (the projector) takes us to unseen spaces, or impossible places for our ('natural') eyes to see. The positioning of the camera already frames reality. Actually seeing such 'images' of reality requires an identification with the virtual camera position (this is the experiential level of 'lived subjectivity': the 'immersion' of the film enthusiast, as contrasted with the neutral, objective position of the 'critic'). "In other words, the spectator *identifies with himself*, with himself as a pure act of perception (as wakefulness, alertness): as the condition of possibility of the perceived and hence as a kind of transcendental subject, which comes before every *there is*" (Metz, 1982, 49). The interfaces that lead us into cyberspace also open up new spaces. Those spaces are not merely flat projections that we look at, but also spaces in which we (fantasmatically) live: in a (text-based or graphical) virtual world I not only look at a flat screen but also 'live on the screen' by means of my identifications with the textual or visual appearances of myself.

For Lacan we cannot fully separate the 'subjective' and the 'objective' position (the 'enthusiast' and the 'critic'): even the detached position of the critic is not neutral – if it would be neutral he wouldn't be interested in any film whatsoever. This leads to a general theory of fantasy as the 'stuff' of the transcendental subject (which I will set out in the final chapter). Fantasmatic identification with a certain virtual position is the condition which makes perceiving a meaningful, significant, expressive reality possible. Identification with a virtual position *always* takes place. We look not only with our eyes, but also with the 'projected' fantasmatic gaze. That is, our looking is animated by desire. For beings of desire the fantasmatic window mediates the interaction with the other (side of the screen). Whereas the mirror-screen closes this 'other side' (and thus the differentiation of reality), this *interaction* causes the disclosing of (a different) reality. Then the subject not merely deals with his own imaginary reflections.

At stake in Lacan's theory is the difference between the 'closed' and the 'open' window, between the mirror-screen and the window or the frame. It develops from the imaginary relationship (a – a') towards the beyond of the image, the *object a* (a – a'\ (a); from the screen as a reflection of the *ego* towards a window of perception for the unconscious *subject* of desire. His formula of fantasy (S<>a) expresses the mirror-screen as a *frame* that conditions the interaction with others and puts us in a certain

position to reality. The window frames reality, for the crucial aspect of the window is its function as a framework. Seeing presupposes some sort of framework (a 'horizon').

New interactive media include the user as a participant in the virtual environment. This interactivity makes it hard to maintain a strict distinction between fiction and reality. Actually (inter) acting in a virtual world or chatbox on the Internet makes my (speech) acts no less fictitious than when I score a goal in a soccer game. When I genuinely interact with others, (speech) acts assume their full weight in reality. Talking without listening leads to imaginary deviations, as well as listening without the possibility of reacting. Most of the interfaces of 'old' media did not have the possibilities of interaction (and thereby excluded the user from participation) that keyboard, mouse, joystick or data glove provide for input, instant feedback and real time control. The possibilities of mass media (that sends its messages from a center to the passive receiver) to form virtual communities remain an imaginary entity, whose virtual reality only begets reality-effects by means of the interactivity of 'new' media (cf. Simons, 2002, 150, 47). 'New' media's inclusion of the user makes its interfaces more than just 'fixed', imaginary screens between the user and the digital other. Interfaces as 'environments' are also, or even more so, frames or windows that organize reality. As a window, the interface allows interaction between user and system, so that the user animates the system, and the sytem animates the user in a concerted disclosure of reality.

3.4. The interactive fantasy: the Self and the question of the Other

The Other in me is like a riddle: why did I build this specific avatar, why did I say that, why did I take this specific photograph etc? In general, Lacan parallels this unconscious, unknown, Other side of the Self to a question that another person poses, namely the
question 'What do you want?' The question that fantasy tries to resolve is: 'what am I for the other?' (what does she see in me, what do I mean to him … etc: Who am I?) .

> "That is why the question of the Other, which comes back to the subject from the place from which he expects an oracular reply in some such form as 'Che Vuoi?', 'What do you want?', is the one that best leads him to the path of his own desire – providing he sets out, with the help of the skills of a partner known as a psychoanalyst, to reformulate it, even without knowing it, as 'What does he want from me?'" (Ec., 312).

The Self emerges as an answer to this question. In general, responding to the question of the other governs communication. So when the other is God, we try to find out what we must be, or do, in order to be 'good' in the eyes of God. Catholic doctrine, for instance, is as such an institutionalized answer to this particular question.[115] When the other is another person in a virtual world that I communicate with via avatars, I construct my 'imaginary persona' (avatar) not only according to my 'own' desire but also for the other, in accordance with what he said to me (and with the 'unconscious material in me'). Transference to computers will show that interaction with a computer, seen as

[115] Lacan's point – against a 'fixation'or institutionalization of the answer – is nevertheless that 'closure' is not possible (when we want to refrain, at least, from the psychotic position of self-enclosed delusion, wherein we *know* the answer); we must continue to confront and expound ourselves with the imperfection of the other and thus with the faultiness of our own answer.

another person, defines identity-construction: I am, for example, the master over the obedient other (that asks 'how can I help you?'). In this process the subject cannot avoid making itself into an object (it defines itself as …). The subject even must make himself – or the other – into an object in order to avoid the impossibility of the answer (for can we ever say what we want or who we are, what it exactly is that attracts us?). Objectification is a necessary process to avoid the enigma or the abyss of desire (cf. Žižek, 1992, 191). Subjectivation and objectification thus go hand in hand (I will address this issue extensively in the next chapter). However, if the screen that fantasy puts up in this intersubjective dialectic of Self and Other is to refrain from illusion, the answer must continue interacting with the riddle coming from the Other (against 'frozen metaphors'). The question of the Other causes a hole in fantasy as a self-satisfied show, because it keeps on insisting and disturbing.[116]

Because reality contains a 'hallucinatory' aspect that results from the interaction with the other/Other (explicitly visible in amorousness or infatuation), we may call it 'interactive'. As this 'hallucinatory' aspect constitutes libidinous reality between people, it is not merely a hallucination of a self-enclosed monad. It is rather an interactive hallucination, exemplified so well by love relations (and in a broad sense the 'love of life', lacking in the depressive-psychotic position). At the center of our experience of reality is a fantasmatic aspect ('reality is marginal'), which necessarily takes shape by means of images and signifiers. Žižek considers reality to pivot around this element of construction. The fantasmatic core of reality 'coordinates' our experience as reality. It is for that reason that a 'hallucinatory thing' as the computer interface can provide new realities. What first appears to be a 'deviation' from reality (as we know it), then becomes a new entrance hall to it. Metaphoric spaces can design new shapes of (a virtualized) reality (see chapter three, part 1). Žižek speaks of a "realization of the metaphor: what at first appears as a mere metaphorical simulation, a pale imitation, of the true reality (computer as metaphor of the true brains, etc.) becomes the original paradigm imitated by blood-and-flesh reality (brains follow in an always imperfect way the functioning of the computer, etc.). What we experience as "reality" is constituted by such a reversal: as Lacan puts it, "reality" is always framed by a fantasy, i.e., for something real to be experienced as part of "reality", it must fit the preordained coordinates of our fantasy-space (a sexual act must fit the coordinates of our imagined fantasy-scripts, a brain must fit the functioning of a computer, etc.)" (Žižek, 1993, 43-44).

The crucial, intersubjective, aspect of fantasy does not concern need but desire. In the reality of desire, fantasy is 'interactive'. I 'imagine' how the other is, and subsequently I 'imagine' myself as the object that I am in the eyes of the other. Online love relations are obviously such interactive hallucinations. As we love our computer, human computer interaction in general generates such 'interactive illusions'. At the psychical level, reality centers on a psychological transference of 'something' that causes the screen to become alive. Then the computer screen transforms from a merely imaginary fantasy world into a window of perception.

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[116] This hole introduces the *object a* as that is impossible to reflect, as what keeps on lacking in the mirror image. The difficult issue of fantasy is the double or 'split' association with this *object a* : we cannot avoid to perceive it fantasmatically, but must avoid to substantialize it. So, if we may 'traverse our fantasy', a new one returns … we must try to traverse our fantasies, but not in such a radical manner that we fall into the psychotic-depressive position of the loss of fantasy …

3.5. The screen and the other: computer psychotherapy

> "the problem of how an artificial situation can produce such an effect [of love] is one that fascinates Lacan throughout his work" (Evans, 1996, 103).

As Turkle (1995, 111) shows, psychoanalytical psychotherapy has been for the greater part very skeptical about computer psychotherapy. For what does a computer know about deep emotions and the unconscious? It is doubtful whether we should position Lacan in this line of thought. In 1966 when M.I.T.-professor Jozef Weizenbaum writes the first computer psychotherapy program in history, called ELIZA, Lacan, during his seminar on the logic of fantasy, expresses a particular interest in this therapeutic machine. Although Weizenbaum wrote ELIZA as a test for the conversational capabilities of machines, people soon started to use it as a conversational partner for therapeutic purposes. It works as follows: when you type in a sentence, ELIZA gives you an answer according to certain codes, and a conversation may follow. Although Weizenbaum thought people would soon lose their interest in ELIZA because of its limited conversational capabilities, they actually were captivated by the conversation. Consequently, Lacan acknowledges that ELIZA appears to produce some sort of transference relation (S.14, 30-11-1966). People find something (of themselves) in the machine: they unconsciously transfer (fantasmatically) the *object a* of their desire into it. And what interested Lacan is – as emphasized – how an artificial situation can produce such a transference effect. The issue is people loving their computers, because in psychoanalytical terms love is an effect of transference.

When in 1966 the issue was still whether people actually could have an affective relation with a machine, nowadays one acknowledges that people really do have such relationships with computers. The work of Sherry Turkle, that I already mentioned, bares witness to this. Norman Holland gives proof of the computer as a seductive sex object, as a symbol of sexual power and prowess (Holland, 1996). Raymond Barglow describes the computer as a fusional object that operates in the unconscious "as a pre-oedipal object related to its user as a mother is bonded to her child before its own boundaries and personal identity have been consolidated" (Barglow, 1994, 14). And in his 'Mom, Dad, Computer: Transference Reactions to Computers' John Suler states: "What makes computers especially enticing targets for transference is that they are VAGUELY human and PROGRAMMABLE to be whatever we make them out to be. … So how do you know when you're having one of these transference reactions to your computer? There are some tell-tale signs. When you want to throw the damn thing against the wall. When it "makes you" feel betrayed and disappointed. When you feel lonely and empty because you have not had enough time to spend with it. When you often want to be at your keyboard more than you want to be with family and friends, or when those people comment on how attached or emotional you get towards it. Any seemingly exaggerated or "inappropriately" strong feelings towards your machine probably means you think of it as more than just a machine. … Because we experience online others THROUGH the computer, it's also possible that the transference reactions to them may interact with the transference reactions to the computer. Transference to the computer may spill over to, amplify, or be contradicted by the perception of the online other" (Suler, 1998). Computers may appear as fellow 'humans': you can talk to them, they can ask you questions, you can play and cooperate with them, etc. And the way we perceive this medium influences the way we perceive the online other. So when

I consider the computer a programmable object, the other person that it relates me to may seem controllable as well. These transference effects give the computer the capacities of a therapeutic machine. For when I perceive the answers and questions of the ELIZA program as resembling those of my father, I might be able to 'work through' problems with my 'real-world' father by engaging in a conversation with my 'artificial father'.

Transference to computers shows man's 'psychological' relation with 'something' behind the screen. Whether this interaction considers a human user or a computer program is sometimes hard to distinguish: who is behind the therapeutical program, who's behind an avatar …? And it might even not be of central concern. The interaction with human users as well as with computer programs (which in the form of smart agents, bots en wizards appear to have human intelligence) deals with interfaces that make the 'other' present. Crucial is the interfaces *causing* the idea of a presence behind the screen (the 'transference effect'). They then 'posses' the *object a*, the object-cause of desire. Because transference effects abound, Lacan would probably be less pessimistic about the possibilities of a therapeutic machine than the inventor of ELIZA himself. For Weizenbaum considered the machine incapable of grasping the human meanings that reach beyond language, and that hold "the incommunicable feeling which the therapist always tries to help the patient express" (Weizenbaum, as cited in Turkle, 1995, 198). Because Lacan stresses the linguistic expression of meaning, and resists all notions of a direct expression of 'incommunicable feelings', the computer screen can function as a 'screen of transference'. In psychoanalysis the analyst is after all also invisible for the patient. Pivotal is what he *says* to the analysand (his signifiers), and that he situates himself as the semblant of the *object a*, as the cause of the analysand's desire. That is, the analysand must 'imagine' that the relationship with the analyst offers him what he is looking for (in his 'unconscious motivations'). Online transference shows that the computer can do just that. The critical issue of computer psychotherapy would then shift from the presence of a real person that is 'directly' in contact with the analysand's 'feelings' to the creation of an accurate program of interpretation. Analysis centers on the interaction at the level of signifiers, in an affective context (of transference). Computer interaction can operate at both levels.

Lacan's theory 'deconstructs' immediate experience into an effect of the interplay of imaginary and symbolic aspects. Fantasy, which constructs the real in psychical reality, is the imaginary that works in a signifying, symbolic structure. And it is certainly not the imaginary as such. Therefore it is symbolic recollection, and not (imaginary) remembering or reminiscence, that decides the recall of (personal) history (cf. S.1, 14). Lacan agrees with Freud that the analogous remembering of the past by means of 'direct' internal images is often not accurate. Therefore the emphasis shifts towards the recollection of signifiers that have determined someone's life. This also undermines the 'cathartic method' that seeks to discharge troublesome emotions by reliving the past traumatic events. Because symbolic recollection is not about reliving experiences it revolves around re-arranging signifying material. Interaction with a computerized other might – in principle – also do the job. The computer can evoke 'warm' imaginary affects that are necessary to maintain a lively relation, and can effectuate a 'cold' symbolical punctuation of the exchanged text. Thus it can work on the unconscious. For Lacan the unconscious is not an 'incommunicable inwardness'. He focuses rather on the exterior form of our intimacy, which leads him to the neologism *extimacy* ('extimité'): the unconscious is outside.

3.6. 'Interactivity' and the paradigm of interface-subjectivity

In chapter two I discussed whether technological autonomy puts the human subject out of bounds. Automation is a well-suited topic to illustrate the issue once more, for one may describe it as "a system based on feedback mechanisms, which substitutes programmed machine-controlled operations for human manipulations" (Vasseleu, 2002, 86). With the industrial robot as its ultimate symbol, automation radically poses the question of 'who-is-acting' (agency). On the one hand robots are the ultimate realization of modern subjectivity in that they give the human operator mastery over the machines: they react to man's instructions. On the other hand they appear as machines that act and make changes on their own, thereby turning the operator almost into a passive remainder. Friedrich Kittler's remark shows that this control is also at stake in cyberspace: "we are all being controlled through our machines, and the more networked machines become, the stricter the mechanisms of control and safeguard will get" (in Vasseleu, 2002, 86).

However, 'cybernetic machines' (environments, 'agents' and informational systems that we connect to via the 'universal machine' of the computer) might transgress this simple paradox of the industrial machine in which the machine struggles to free itself of its makers, while its users desire mastery over and through their machines. Cybernetic machines exceed the sharp distinction between man's control versus the control of the machine. In cyberspace we are not simply users of instrumental systems or, conversely, instruments of the machine. Because cyberspace is so much a 'psychological space' (Suler) we are *participants* (see chapter two, part 4). The *interaction* between user and system causes the (psychical) reality of the computer screen. With that, we are in the paradigm of interactivity.

> " the interactive user keeps the system going by being active, physically engaged, alert and impatient …
> "Engaged in mutual and simultaneous activity, users and systems are animated by each other" (Vasseleu, 2002, 87).

The subjectivity of 'the age of information' is not that of an autonomous, controlling ('phallic') human subject at this side of the screen, versus an impotent subjectivity that must hand over its power (*vir*, *virtus*) to an autonomous technological world at the other side of the screen (and gets Viagra in return). The subjectivity at stake concerns the *interaction* of user and system, of man and technology, of real and virtual, of *tuchè* and *technè*. It is to be found at the human-computer interface, in between the known, rational world of control of the (human) Self, and the computerized, 'imaginary' world of the (machinic) Other. Fantasy, as such an intermediary space, is crucial for understanding this world of 'interactivity'. The screens that computers hang everywhere on the surrounding world both *connect* our 'real life' to virtual scenes, and *separates* us from them. We are in the difficult, 'intermediary' position of being influenced and governed by the virtual worlds (we are 'identical' to them), and being different from them: there remains something of a free subject ('non-identity' with the object that we turn ourselves into). Therefore we are not in the autonomous position of the modern subject of representation that, although seduced by all sorts of imaginary and bodily pleasures, is still capable to detach itself 'spiritually' from its illusions. Neither are we only 'post-modern' subjects of seduction that lack a positive and critical point of reference for evaluating the manifold of lures. Neither true representation nor (utopian

or dystopian) simulation. Neither *Vorstellung* nor *Darstellung*, objectivism or subjectivism. Interface-subjectivity is about the intermediary 'subjective-objective' position.

Conclusion

Information systems do not only produce avatars, computerized self-representations, which function as primitive machines of pleasure. The specific issue of the fantasy screen and hence of the computer screen, in my opinion, is that it is also a way to shape the real. The screen does not merely replace the real; it also 'gives it a face' in the first place. The real is not an objective given that can take the measure of the reality on the computer screen. The specific role of the real in Lacan's theory shows that, for human beings, one should do away with such a vision. The real is unassimilable, traumatic. The screen of fantasy moulds this real (*jouissance*), and is therefore beyond the simple wishfulfilling production of an imaginary double (pleasure). The unconscious fantasy implies at its basic level that one does not 'play' the same scenario's over and over again in order to gain pleasure via imaginary reflections; it is a conditional way to shape the real (encounter) underlying it. Similarly, the information that we retrieve from our memory (which Lacan also considers to be a system of ciphering or encoding) is not the one and only objective reflection of the information of 'events' that is stored in our memory. This mechanism also holds for computer (user) interfaces. The information on the screen does not objectively reflect the 'true' encoding and storage by and in computers of real things in the outside world. Information does not exist objectively in computer memories; it depends on context and interpretation. Considering the real in a psychological sense as a traumatic thing 'hidden' in reality, not even the most primitive functioning of the psychic apparatus - the automaton of the pleasure principle, as manifest in (technological) dreams - reflects it. The screen of fantasy both screens off and 'constructs' the real that lies behind it, and the computer screen can function in both ways. Computerized treatment of phobia shows how imaginary reminiscence of the real anxiety-producing object is taken as its objective reflection, hence the desensitization of the image. Here the computer functions as a mirror-screen that forgets the 'real thing' behind it. Computer psychotherapy shows that the computer, as a therapeutical instrument, also can function differently. Then it constructs the traumatic encounter (or unassimilable otherness, heterogeneity) on-screen out of 'bits and pieces'. The unconscious fantasy *composes* the slipping real, whereas the conscious pleasure seeking fantasy tries to *replace* 'it'. In computer psychotherapy the computer contributes to the composition of the real – and thus help us gain insight in our fantasmatic constructions. When technical construction occurs with a sense of non-conclusion (non-isolation), so when *technè* remains in contact with the *tuchè*, the computer screen actually may contribute to our experience of reality. In agreement with Katherine Hayles I hence conclude that the computer screen is not simply about the dichotomy of presence and absence; "for the avatar both is present and is not present, just as the user both is and is not inside the screen" (Hayles, 1999, 27). The computer screen is neither about 'true representation' (*Vorstellung*) nor 'false representation' (*Darstellung*). From a Lacanian perspective the core of subjectivity does not reside either 'here' (the body), or 'there' in the mental realm of representations. It lies there where the patterns of information of the – (unconscious) mind as a – computer interact with the 'noise' that cannot be encoded in the system.

CHAPTER FIVE. EMBODIMENT: THE IMAGINARY 'STUFF' OF VIRTUAL SPACE

> "the ontology of cyborgology is embodiment"
> (Gray, Mentor, Figueroa-Sarriera, 1995, 12).

Introduction

By combining the terms 'cybernetics' and 'organism' NASA scientist Manfred Clynes coined in 1960 the word 'cyborg'. Whereas this initially referred to a human being whose bodily functions were aided or controlled by technological devices, nowadays the term has acquired a more general meaning and describes the dependence of human beings on technology, so that we can think that "all who enter cyberspace become cyborgs because they depend on machines for their online life" (Jordan, 1999, 187). The cybernetic theories of Norbert Wiener, which Lacan tried to incorporate in his thinking, form a good basis for explaining the question of the cyborg from a Lacanian perspective. Lacan uses cybernetics to show that the automatic codes of language (or of the unconscious as a language) make the human subject dependent on 'machinism'. The (contemporary) question arises how this 'codification' relates to the human subject as a material body. The question of space is pivotal: how do we inhabit virtual spaces? For Lacan the question of space is a profound psychological issue: we ('psychically') exist in space, and this existence is not without 'physical' attachment. The function of the ego and the body in the opening up of space should shed some light on bodily involvement in (cyber) space. From there the question of the cyborg, and the opportunities and risks of becoming one, should become apparent. This approach also enables us to draw a link between Lacan's discussion with early cybernetic theory and contemporary questions regarding cyberspace and cybernetics.

1. The 'steersman' and his body

1.1. Wiener and Lacan: the logic of cyborgs

With his book *Cybernetics: Communication and Control in Animal and Machine* (1948) Norbert Wiener revolutionized thinking about human communication and control by arguing its fundamental similarity to the communication and control of animals and machines. Both humans and machines are cybernetic systems that receive messages from the outer world via sensory organs or receptors, and regulate the interaction with the world via feedback loops. Just as machines can be controlled via messages, the driver ('steersman', in Greek: *cybernetes*) of a car controls the motor with his gas pedal, and thereby achieves a homeostasis of a constancy or regularity between the system and the world.[117] In cybernetic systems input and output mechanisms control entropy: a

[117] The notion of homeostasis allows us to trace the cybernetic circuit in the work of Freud. The pleasure principle is the principle that keeps the level of excitement at a constant level, and can thus also be called a (cybernetic) principle of constancy.

thermo-dynamical concept *defining the tendency of an organic system toward an increasing state of chaos*.

Especially interesting in Wiener's description of cybernetic systems is his attempt to eliminate the difference between men and machines: the organic and the mechanical contain a common language. In their outline of cyborgology, Gray, Mentor and Figueroa-Sarriera describe Bruce Mazlish's book called *The Fourth Discontinuity: The Co-evolution of Humans and Machines*. "In Mazlish's story, Western intellectual history can be seen as the overcoming of a series of great illusions, termed discontinuities, because they posited as natural four artificial distinctions, those: 1) between humans and the cosmos (overcome by Copernicus); 2) between humans and other life (overcome by Darwin); 3) between humans and our unconscious (overcome by Freud); and 4) between humans and machines. Wheresoever we note the dissolving fourth discontinuity, cyborgs thrive" (Gray, Mentor, Figueroa-Sarriera, 1995, 5-6).

The cyborg also thrives in the work of Lacan. In his 1955 seminar he makes this perfectly clear with his answer to Octave Mannoni who is worried that language could be generated by a machine and thereby no longer human:

> "Don't be soft. Don't go and say that the machine is really nasty and that it clutters up our lives. That is not what is at stake. The machine is simply the succession of little 0s and 1s, so that the question whether it is human or not is obviously entirely settled - it isn't. Except, there's also the question of knowing whether the human, in the sense in which you understand it, is as human as all that" (S2, 319).

Those cybernetic theories of Wiener which Lacan takes issue with primarily focus on the controlling function of the 'steersman' with a predominantly instrumental conception of the computer. The Graphical User Interface (GUI) and later on the mouse made the computer more of a medium and less an instrument of control. In this case the word 'cyber' refers more to the (visual) space that the user can navigate through (cyberspace), than to the instrumental function of control (cybernetics). I will take Lacan's debates covering cybernetics as a starting point for a Lacanian exploration of cyberspace. Both cybernetics and cyberspace revolve around the codification of objects into an exact language of zero's and one's ('information codes' such as the software codes that run cyberspace, the information codes of DNA …). In the discussion between Wiener and Lacan it is worth noting the issue of the difference between information in a strict technical sense, and information concerning content. In the first sense it concerns *signals* that must be encoded in such a way that they can be deciphered independent of noise; information has merely a syntactical dimension of the formal relation of codes. In the second sense it concerns *signs* which are_only understandable in a certain communicative context (Simons, 2002, 55); information then also relates to meaning (semantics) and use (pragmatics). Information and communication technologies may nevertheless transcend this distinction. When computers function as media (and not merely as instruments), data and content (or concepts), or encoded information and meaning, go together in the creation of a 'medial ecology' – that we live in like the space of fantasy.[118]

[118] Fantasy creates a medium for us to live in: it not merely consists of analyzable, or decomposable messages or of pleasurable images; those two aspect go together in its functioning as an unescapable medium, and therefore is is to a considerable extent unconscious.

Lacan's 'texts' are notorious for their attempts to formalize the unconscious. Until the 1950's he underpins his formalizations with game theory.[119] Afterwards he turns to cybernetics (cf. Marini, 1992, 68). In the lecture 'Psychoanalysis and cybernetics, or on the nature of language', included in the transcriptions of his 1955-1956 seminars, Lacan shifts to cybernetics. For cybernetics is "concerned with the way in which one can reduce down to its essential elements the mode in which a message is transmitted" (S.2, 296). The comparison cyberneticians made between man and machine fascinated Lacan. According to Von Neumann and Wiener the most important entity in this equation is information, not energy (Hayles, 1999, 99). This gave Lacan the opportunity to redefine the Freudian unconscious, away from what he saw as its biological aberration; "Don't you know that the energetic is nothing else, whatever the naive hearts of the engineers believe, then the appliance of a network of signifiers onto the world?" (S.17, 54; *m.t.*).

The cybernetics of Wiener corresponds to the structuralist theory of language. Katherine Hayles finds some clear "similarities between his definition of information and Ferdinand de Saussure's view of *la langue*, or language as system. In both cases, communication proceeds through selection from a field of possible alternatives rather than through the direct articulation of inherent reference" (Hayles, 1999, 97-98). Wiener "realized that one of the subtle implications of this view is that messages are constituted, measured, and communicated not as things-in-themselves but as relational differences between elements in a field. Communication is about relation, not essence" (Hayles, 1999, 91). Lacan could not agree more with the idea that communication is not about essence. It does not transfer a pre-established essence (substance, meaning). One might say – with a sideways reference to the philosophy of Paul Ricoeur – that the word is the locus of language where structure and event continuously interact (or *technè* and *tuchè*). Put differently: words mediate between language as a structural system and the body as the site of libidinal investment of the world. Communication does not transfer a meaning that is already given. The embodied contextualization of messages constructs meaning. This is what Lacan's discussion with cybernetics will show.

1.2. Information codes and embodiment

The question addressed by Lacan in his discussion of cybernetics is the contemporary issue of the embodiment of cyborgs. How does the body relate to, or integrate in the cybernetic circuit? Frank Biocca gives a clear description of the problem, and relates it to Descartes' error of 'forgetting' the importance of the body and separating it from the mind.[120] Biocca: "In a view of the computer as giant brain, widely shared in the 40s and 50s, we see another version of Descartes' error. This coupling was of one brain to another. The communication between human and machine was one of conversation. The conversation was with a large disembodied electronic brain, seen either as a peer, slave, or competitor. Instead of a mind communicating through a body to another body, we have only two disembodied conversations, a sterile coupling of abstract symbol generators. It is the symbol manipulating vision of early artificial intelligence, rather than the situated embodiment of intelligence augmentation. At the close of this century,

[119] Barglow notices the special attraction of the advocates of information processing psychology to game theory: "For the codified rules of a game exhibit an independence of social and historical context that characterizes information-processing logic as well" (Barglow, 1994, 161).

[120] In chapter seven I will systematize this issue of the Cartesian subject and set out that from a Lacanian perspective it is not a subject without a body, because fantasy is its 'stuff'.

the development of advanced computer interfaces appears to be increasingly characterized by what we might call progressive embodiment. Progressive embodiment is defined as the steadily advancing immersion of sensorimotor channels to computer interfaces through a tighter and more pervasive coupling of the body to interface sensors and displays" (Biocca, 1997, § 1.3).

1.2.1. Cybernetics

Lacan conceives the unconscious as an autonomous cybernetic circuit. Phenomena such as repetition and free association illustrate this 'automatic' production of signifiers. There is an (unconscious) system determining which signifiers can appear at a certain moment (cf. Verhaeghe, 2001, 76). The unconscious discourse of the Other functions as "the discourse of the circuit in which I am integrated. I am one of its links. It is the discourse of my father for instance, in sofar as my father made mistakes which I am absolutely condemned to reproduce" (S.2, 89). In his later lecture on psychoanalysis and cybernetics Lacan dilates upon this question of determinism, that – I will try to show – hinges on the issue of fantasy. He uses cybernetics to shed light on the analytical situation in which one tries to let the analysand speak without intention (free association), that is to say "he should intentionally get as close as possible to chance" (S.2, 296). But precisely this speech reveals some sort of determinism, as exemplified by the repetition of mistakes. "What is the determinism here sought after in an intention of chance?" (S.2, 296). Lacan supposes that cybernetics can illuminate this determinism. Thus he tries to construct psychoanalysis via the path of the exact sciences which study the real via a strict discourse (a syntax): cybernetics is " a science of syntax" (Lacan, S.2, 305). Cybernetics conceives language reduced to its barest bones, as a binary system of 1s and 0s (that like a handful of other elementary symbols and operators such as A, B, *x*, *y*, + and – can form a 'system'). A certain combination of the elements 0 and 1 can constitute a circuit transmitting a certain message. It might explain – to pull it into the field of psychoanalysis proper – why the analysand has said something or always repeats the same trait or action. Hence, repetition may show that beyond the 'pure' codified language, there is also the aspect of fixation. Because when we try to speak as freely as possible (and are at the level of the virtual subject of discursive construction where we construct ourselves in speech), there is a (libidinal) force that constantly leads us to the same point. Lacan's point of interest is how these two levels interweave.

Despite his fascination for these 'exact' formalizations, Lacan discovers that the cybernetic objectivation of mental processes does not fully work for a science of man such as psychoanalysis: "for the message to be a message, not only must there be a sequence of signs, but there has to be a sequence of directed signs" (S.2, 305). Although one can study the laws of language – in the domain of the Other – down to its most basic elements, it is still decisive to *which other* the subject addresses the sign.[121] Man is not just a symbolic, virtualized subject of language (of an ordering purely based on syntax) under logical 'control'. He is also a subject of the drive, of a libidinal investment in images that directs his 'disembodied', formal desire and gives it meaning (a subject of

[121] Here we touch again upon the centrality of the transference in psychoanalytical praxis. In addressing the analyst, the analysand might (unconsciously) address someone else (in his fantasy the analysand relates to the analyst as the *object a*). It is by means of this transference that the analysand can 'work through' past problematic encounters.

a semantically ordering of things). This is what Lacan discovers on his path through cybernetic theory, and adds to it:

> "At this point we come upon a precious fact revealed to us by cybernetics – there is something in the symbolic function of human discourse that cannot be eliminated, and that is the role played in it by the imaginary" (S.2, 306).

The imaginary as a never fully erasable – for also constitutive – identification with fantasmatic images is in fact the libidinal motivation in symbolical (self) expression. The libidinal relations toward our own and other people's images remain involved in our use of language. This 'energetic' element 'colors' the way we use language to transmit a message. Therefore this libidinal motivation halts the possibility of a clear cyber-consciousness that would be reducible to the pure thought of exact signs.

> "We are embodied beings, and we always think by means of some imaginary go-between, which halts, stops, clouds up the symbolic mediation. The latter is perpetually ground up, interrupted" (S2, 319).

1.2.2. Cyberspace

The aspect of embodiment of the virtual subject is contained in this 'imaginary' element. This is also what Sandy Stone's theory of embodiment in virtual environments can teach us. In her analysis of phone sex, for instance, she makes very clear the libidinous element in the communication of signs. This libidinous aspect of expecting a certain image or scenario to appear contains the element of embodiment in this purely verbal communication. "The worker verbally codes for gesture, appearance, and proclivity, and expresses these as tokens, sometimes in no more than a word. The client uncompresses the tokens and constructs a dense, complex interactional image … The client mobilizes expectations and preexisting codes for body in the modalities that are not expressed in the token; that is, tokens in phone sex are purely verbal, and the client uses cues in the verbal token to construct a multimodal object of desire with attributes of shape, tactility, odor, etc. This act is thoroughly individual and interpretative; out of a highly compressed token of desire the client constitutes meaning that is dense, locally situated, and socially particular. Bodies in cyberspace are also constituted by descriptive codes that "embody" expectations of appearance" (Stone, 2001, 189).

The 'pure subject' of the signifier, of the circuit, cannot do without an original anticipation. "The foundation of the system is already in play. How could it be established if it didn't rest on the notion of chance, that is to say on a certain pure anticipation, which already has a meaning?" (S.2, 305).[122] The role of avatars in virtual communication clearly illustrates, or even visualizes, this notion of embodiment as the involvement of images in 'pure' (codified) communication. Also in the early text-based MUDs (Multiple User Dungeons/Dimensions) and computergames the user must make a visual representation of those virtual worlds out of textual signs or instructions (and hence by virtue of his capacity for fantasy). It is not a *superfluous* 'morass of subjectivity' that gives meaning to language by means of its ambiguities, emotional content and human subtleties (it is, by contrast, an inevitable *surplus* subjectivity).

[122] In the previous chapter's part on *technè* and *tuchè* I showed that the psychic system is not fully reducible to an (disembodied, neutral) automaton, as it (affectively) 'circles' around certain 'things', which I designate here (in a Kantian sense) as 'products of the original imagination'.

Lacan's work is not a plea for subjectivism (as subjective arbitrariness), on the contrary. Although fantasy as a realm of imaginary illusions that clouds clear thinking may be eliminated – which is precisely what psychoanalysis aims at – one cannot eliminate the constitutive aspect of the imagination. We always anticipate the future on the basis of ideal images: being someone else, being somewhere else. That is what motivates us, and what also keeps the subject of clear thought – or of exact signs – on its feet.[123] Therefore for Lacan a crucial question for understanding Descartes' project is what Descartes desired.

Recent academic approaches toward television, film and mass communication often point out the meaning of messages as not merely determined by the signs they consist of. The receiver plays an important role in the construction of meaning, by means of his context, his suppositions about the intentions of the sender, and his own goals in the communication (cf. Simons, 2002, 42). Phenomenology as well as Lakoff and Johnson 's theory of metaphors bring forward that for a meaningful handling of the information that we retrieve via computer interfaces we need embodied background information. Meaningful information consists not of context-independent symbols and rules, but is enclosed in an embodied interaction with the objects of our daily life. We can also relate Lacan's discussion with cybernetics to the contemporary discussion regarding the conduit metaphor in information and communication technologies. The conduit metaphor supposes ideas as objects that we can put into words and send over a conduit, a channel of communication to the receiver who extracts the ideas from the words. It supposes meaning to exists objectively and independently of human beings (see appendix). George Lakoff considers this conduit metaphor false because "it is based on the assumption that reason is disembodied, that reason can be separated from the body and the brain, that it can be characterized in terms of *pure form* [my italics, A.N.] This is an idea that goes back at least to Descartes. What has been discovered in the cognitive sciences in the last fifteen or twenty years is that reason is embodied, that concepts are embodied – they have to do with how we function in the world, how we perceive things, how our brains are organized, and so on. It is not a matter of disembodied computation … Humans think in what are called "image schema's"" (Lakoff, 1995, 121).

In the 1950s Lacan notices this embodiment of computation ('embodied background information', the 'image schema'). In his second seminar Lacan names this element that obstructs clear communication "the imaginary". Later on he explicitly calls it fantasy. Fantasy is the way we conceive of ourselves in relation to the Other. It has a 'foundational' status: it founds the system of communication by linking it 'originally' to our embodied context. It directs the signs and thereby introduces a meaning that cannot be deduced from pure syntax. The attempt in analysis to speak without restrictions ('by chance') is a way to articulate the determining fantasy.

[123] The role of (fantasmatic) motivation becomes clear in the case of depression. The depressed person has lost his imaginary anticipation of a future reality that is worthwhile. His fantasmatic mediation of the real has diminished: there are no things that make life worth living.

2. Embodied space

> "At root, the question [of virtuality, A.N.] is the relationship between the human body and space, mediated by the sense of sight" (Mirzoeff, 1999, 181).

2.1. The quest(ion) of space

What constitutes space is not an open-and-shut case; there are various conceptions of space (cf. Wertheim, 1999, 33). Since the rise of modern science the physical conception of space dominates, wherein space is a boundless extension that contains everything, as a dimension of the world that is independent of bodies, like the space on my bookshelf: it is there, whether it is packed with books or not. In this *absolute space of Newtonian physics* space is a logically and ontologically independent dimension. This view is so entrenched in ordinary usage that we normally regard it as the primary meaning of space from which all others are derived. Space as an all-encompassing container is without reference whatsoever to sense perception. Leibnizian relationalism as another major paradigm in the modern conception of space does not consider space to be an absolute and infinite substance, as does the tradition reaching its culmination in Newtonian physics (Copernicus, Kepler, Galilei, Descartes). Leibniz conceives space as a purely *relational system* or mathematical structure (Torretti, 1998, 61). The situation, distance or relation of one body towards another defines a thing's place; it does not have a fixed place in a scientific system of coordinates. Space, according to Leibniz, is that what encompasses all those places. It does not have a genuine reality of its own. George Berkeley's epistemological idealism takes Leibnizian relationalism to its extreme. When there is no space without bodies, than space as such is 'mere nothing'. As Berkeley denies the existence of material, real things outside our perception, space results not from the relations between things, but from the projection of representations that God impresses in our mind. Although we may think that the representations come from real things outside us, they actually come from God. The conclusion that God is space seems to follow from this: by perceiving things in space we actually perceive 'the Author of our being'.[124] From Berkeley it is apparently not a giant step to the 'space of cinema' (with God as the Great Projector), from which it is impossible to find the exit to 'the real world'. The shining of God's light opens up space.

In Berkeley's philosophy space is a subjective phenomenon: fully related to the perceiving subject. It is the opposite of the objective space of Newtonian science. In chapter three I discussed that for Kant space is one of the principal forms (beside time) in which the imagination synthesizes the multitude of sensory impressions, like a television synthesizes the incoming signals and projects them coherently on the screen. Space is not an objective substance, but neither a merely subjective effect that can do away with the materiality of things. For Kant the subject's a priori *form of appearance* conditions the objective existence of things. Without the subject's constitutive putting ('Setzung') of the sensory impressions in the dimension of space there would be no objectivity possible. Space is the subjective form that makes it possible for unknowable real things to appear objectively (it is 'subjective-objective').

The physical conception of space unties it from sense perception. Since it is perpetually present it is absolute, not dependant on the perceptions of a human subject. In a psychological conception space does not have such an absolute status; as tied to

[124] Newton also associated space with God; because God is everywhere space must be infinite.

sense perception psychological space can change. The use of drugs, for instance, can change the experience of space in such a way that someone may jump off a building by losing his sense of distance. Although Lacan also mentions “the objective space of reality” he focuses on the bipolar character of “the space in which the imagery of the ego develops” (Ec., 27). This space reflects all sorts of figures of ourselves (and is cyberspace not, from the psychological perspective, a whole realm full of technological mirrors?). Real, objective space and virtual space maintain, as I underlined before, a close connection (the space of 'real virtuality'). In a Lacanian approach the ('subjective') virtual space of the mirror-image functions as a framework (a 'window') for our perception and understanding of (what we think or imagine to be) the reality of 'objective space'. Therefore the technological construction of virtual space (cyberspace) functions as a (not merely illusory) medium of consciousness.

2.2. Mirror space: the ego as a virtual unity

> "simply because it is an image, the ego is an ideal ego …
> The subject will discover over and over again that this image of self is the very framework of his categories, of his apprehension of the world – of the object" (S.1, 282).

We can perceive a branch and see a stick in it. Pierre Lévy considers the fact that man ‘sees double’ as the basis of technology: “All technology is founded on this capacity for twisting and doubling reality, for the heterogenesis of the real” (Lévy, 1998, 116). The exchange between ourselves and the ‘real’ entities that we perceive, virtualizes the real by doubling it. “The dialectical operation serves as the basis for the virtual because it creates, always differently, a second world” (Lévy, 1998, 117). Lévy stresses the concurrence of man's capacity for creating technological artifacts and his capacity for creating a second world: no technology without imagination. Imagination is constitutive of (technological) reality itself.

From a Lacanian perspective one might come to similar conclusions. For Lacan holds that even our sense of personal identity comes about via a doubling of the real. The 'me' is not present in an immature form from birth onwards only having to reach full maturity, like a tree is the mature form of the core that was already present in the seed (which shows that Lacan's theory cannot be headed under the scheme of realization of potentiality).[125] Lacan follows Freud's basic notion that the ego is something that must be developed ("Das Ich muss entwickelt werden"). In the ensuing paragraphs I will give an account of the foundations of the Lacanian theory concerning the ego. This theory is crucial for understanding how man and machine, body and mind connect at the interface

According to Lacan imagination is a medium through which even we ourselves always exist as a virtual double. He formulates this constitutive relationship between the organism and its double for the first time in his famous theory of the mirror stage. Its pivotal notion concerns the identification with the specular image as furnishing the self with a *virtual unity*.

[125] Or to speak 'Žižekian': "Becoming what I am? … no thanks! Better for both of us".

> "The entire dialectic which I gave you as an example under the name of the *mirror stage* is based on the relation between, on the one hand, a certain level of tendencies which are experienced let us say, for the moment, at a certain point of life – as disconnected, discordant, in pieces – and there's always something of that that remains – and on the other hand, a unity with which it is merged and paired. It is in this unity that the subject knows himself for the first times as a unity, but as an alienated, virtual unity" (S.2, 50).

Lacan's theory of the mirror stage fills in a 'gap' in Freud's theory concerning the 'new psychical action' that the different partial drives need in order to convert from the stage of autoeroticism, where satisfaction is gained from the individual's own body, to the stage of object-love where the individual invests its libido (also) in others. In the intermediate stage, the ego emerges as the result of the partial drives' investment in something that gives the subject for the first time a unified sense of self: the self-image. From his work 'On narcissism: an introduction' (1914, *SE* 14, 73-102) onward Freud defines narcissism as an *investment of libido in the ego*. But Freud does not clarify how this investment comes about, and thus leaves open the question concerning the 'mysterious' emergence of the ego. Lacan gives an explanation by claiming that a primitive version of a unified self-experience occurs when the infant recognizes itself for the first time in the mirror. Between six and eighteen months the infant shows, by means of the illuminative mimicry of the *Aha-erlebnis*, that it recognizes the image in the mirror as itself.

> "This act, far from exhausting itself, as in the case of the monkey, once the image has been mastered and found empty, immediately rebounds in the case of the child in a series of gestures in which he experiences in play the relation between the movements assumed in the image and the reflected environment, and between this virtual complex and the reality it reduplicates – the child's own body, and the persons and things, around him" (Ec., 1).

The ego expresses a mastery over the diverse sensations of the direct or 'real' bodily awareness. And the individual expresses this feeling of mastery or control in certain dispositions or states of mind. In the mirror stage this is the state of mind of jubilation: the celebration of the infant in front of the mirror signals the event of controlling its own body via identification with the 'illusory' other:

> "The privilege of that experience is to offer the subject a virtual reality, non-realized, grasped as such: to conquer. Every possibility for human reality to construct itself passes literally through it" (S.5, 225; *m.t.*).

The mirror stage is the *paradigmatic structure of the imaginary*. All identifications with 'images' establish a sense of unity, mastery or autonomy that is not there 'in the real'. As constitutive elements of our personal identity these 'illusions' permeate our reality with virtuality.

Like Peirce (cf. chapter two: § 1.1.), Lacan seems to consider the mind to be a virtual thing. Peirce focuses on the impossibility of cognition or representation in a single moment: it needs the connection of moments in time (hence there is no 'immediate sight'). Lacan stresses the doubling of places in which we exist as a

condition of representation and cognition ('introspection' is erroneous – we cannot know ourselves without representing ourselves).[126] With that we are ineluctably in the virtual space of the mirror. Or as Peirce stated (cf. chapter two, note 11): "the mind is virtual … not capable of existing except in a space of time". 'Images' interface the physical space of the body, and the virtual space of the mind. Also in Freudian psychoanalysis the 'sense of sight' (see Mirzoeff's quote at the beginning of this section) is crucial in the mediation of the 'human body and space'.

2.3. The optics of reflected figures: consciousness as an effect

> "[I]deas, thoughts and psychical structures in general must never be regarded as localized in organic elements of the nervous system but rather, as one might say, *between* them, where resistances and facilitations [*Bahnungen*] provide the corresponding correlates. Everything that can be an object of our internal perception is *virtual*, like the image produced in a telescope by the passage of light-rays. But we are justified in assuming the existence of the systems (which are not in any way psychical entities themselves and can never be accessible to our psychical perception) like the lenses of the telescope, which cast the image. And, if we pursue this analogy, we may compare the censorship between two systems to the refraction which takes place when a ray of light passes into a new medium" (*S.E.* 5, 611).

As the quote from *The Interpretation of Dreams* shows, Freud uses the reference to optics – not just to an optical apparatus as is the telescope in this quote, but also to the microscope and the camera (*S.E.* 5, 536) – to give a graphic representation of the psychic apparatus. Representations and thoughts are like 'virtual images' that are not located *in* organic elements of the nervous system but rather *in between* those elements, where the effects of the unconscious mould them, like the lenses shape the image in a telescope.[127] Lacan explains: "The organic apparatus represents the mechanism of the camera, and what we apprehend are the images" (S.1, 123).

Lacan also uses optical models as metaphors for the functioning of the psyche. "For there to be an optics, for each given point in real space, there must be one point and one corresponding point only in another space, which is the imaginary space" (S1, 76). Optics demonstrates the intermingling of what we are inclined to call real space (a space supposedly being present independently from the bodies and human subjects that inhabit it) with imaginary space. The optical schema "allows us to illustrate in a particularly simple way what follows on from the strict intrication of the imaginary world and the real world in the psychic economy" (S1, 78). We cannot avoid 'decorating' real space with our reflected figures. When consciousness functions as a camera, our vision is already mediated via 'glasses' that frame our perspective on the world. Lacan's conception of space therefore seems to lean towards the Kantian notion of space as an indispensable category for the appearance of things.

In his second seminar, Lacan uses the camera to provide a 'materialist definition of consciousness' (S.2, ch. 4). This definition might remind us of the modern

[126] Although there is thus a distinction of 'body' and 'mind', this is not a strict dualism. For pivital is what interfaces them, what I elaborate as fantasy.

[127] For some thoughts on the idea that it is the spatial, metaphorical representation of neural events that creates a 'virtual inner space', see Hopkins (2000).

materialistic and mechanistic explanation of physical space in which everything revolves around matter and the forces that move them, with no room for something like a soul or a mind. Lacan now explains consciousness without falling back on something like a soul or an immaterial mind. His materialist definition brings consciousness from a substance to an *effect*. It considers

> "consciousness to occur each time – and it occurs in the most unexpected and disparate ways – there's a surface such that it can produce what is called *an image* … All sorts of things can behave like mirrors. All that's needed is that the conditions be such that to one point of a reality there should correspond an effect at another point, that a bi-univocal correspondence occurs between two points in real space" (S.2, 49).

In the metaphoric of optics, *consciousness is an effect of reflection* (and as such characterized by virtuality). In the mirror image (reflection) we recognize ourselves in a complete form.

> "The human being only sees his form materialised, whole, the mirage of himself, outside of himself" (S.1, 140).

We can gain consciousness of ourselves in all sorts of things in which we can recognize ourselves: works of art, of philosophy, manual works, consumer goods, instruments, machines, displays … : they give a concrete form to, they design, our desire.

Likewise, we can gain self-identity in products of digital technologies. The computer screen as well functions as a mirror. Rob Shields states on the image-circuit of digital culture: "Such images, whether graphic, tactile or narrated, are central to the shaping of identity: largely constituted by the perception of the self as a separate totality (the individual) … technological images have become the mirrors in which to look for an identity" (Shields, 1997). Technological images can provide a sense of personal identity because we can find (images of) ourselves in them. As such a 'mirror' we identify with the image on the screen. The computer is a medium for man, to use the words of Lacan, " to impress his image in reality": we find self-images in it and (try to) shape the world accordingly (thus it is almost a divine 'engine of creation').[128]

The point to be remembered here is that consciousness is a matter of surface-appearances. In presenting the 'outside' of ourselves we make (up) our identity and become conscious of ourselves (self-conscious, self-confident – as with make-up – or even self-assured). Make-up and fashion are the most obvious examples of this intricacy of personal identity and surface-presence. In a broader context this allows for the interpretation of design as the skin of culture.

2.4. Imaginary space interfaces man and world

As identification with images, the ego opens up virtual space. The alter ego of (ideal) images is its constant companion. Therefore we not only exist at the point where our

[128] This is similar to a Hegelian way of thinking. From a Hegelian point of view technology is an objectivication of our self-understanding: we externalize the image that we have created of our being (Coolen, 1992, 205). The discussion of the intricacy of Eros and Thanathos in chapter one showed that in Freudian theory man's being necessarily needs mediation. For at the level of language and desire this being is nothingness. On the level of the drives it is an excessive j*ouissance*.

own body physically is, but also at the virtual place where we imagine ourselves to be. This order of images resembles the functioning of the imago – which Jung originally introduced in psychoanalytic theory. The imago colors the way we relate to other people: we perceive the others through the lens of the various imagos. Although Lacan is largely negative in his judgement of Jung's notion of universal prototypes, in his theory the image also functions as a medium of perception. His notion of the mirror stage shows this.

> "I am led, therefore, to regard the function of the mirror-stage as a particular case of the function of the *imago*, which is to establish a relation between the organism and its reality – or, as they say, between the *Innenwelt* and the *Umwelt*" (Ec., 4).

The imaginary order introduces, as media of perception, a distinction between the Inside and the Outside of the subject; severing the 'here' from the 'there' it opens up space. It causes duplication: the lived 'inner body' and the body-surface (in the next paragraph I will explain that the ego is mainly a projection of the surface of the body). The imaginary order both *separates* the 'organism' and his environment (and hence constitutes individual consciousness) and *connects* the individual to his world. This imaginary space (of fantasy) hence functions as an *interface* between man and world.[129] Calling to mind Biocca's analysis (chapter three: § 3.2.) to anticipate the notion of the computer interface as a fantasy interface: "In immersive VR the whole interface defines the boundaries and shape of the body by defining the boundary between inside and outside, between the part of the VR world that is "me" and the part that is "the world" … From coherent patterns of energy impinging on the senses (i.e., the proximal stimulus) the virtual world is divided into "self" and "environment". I will first of all discuss fantasy as an interface in relationship to a domain that Lacan also refers to: ethnological research.

Ethnology allows us to situate fantasy in relation to the problem of the 'instinct'. It propounds that what distinguishes man from the animal is the latter's adaptation to a uniform environment. An animal has the natural space of its immediate environment, and its instincts express this immediacy. Man's relationship to his environment is not so natural, and one must take account of this 'breach of man out of nature' and distinguish between the instinct and the drive, to which for instance the work of Max Scheler testifies. The 'unnatural' phenomenon in man is that beside the instinctive striving for the fullfillment of needs there also is a separated striving for pleasure (Kunz, 1946, 107). Whereas the instinct has a natural object, the drive does not. It has, as one says in psychoanalysis, a psychical object. Nevertheless, the drive is guided by 'immanent images' that relate to images of what attracts the organism in the outside world. Those 'drive-immanent' images are what we call 'phantasms', or objects of fantasy (Kunz, 1946, 125). Although not 'natural', they appear to be some sort of 'innate ideas'.[130] This deflection or mediation of the drive's object by a dimension of narcissistic images is not just an illusory process that can and must be overcome. It is also a 'deviation' that

[129] I more or less equate the imaginary space with the space of fantasy, because in the narcissistic matrix of the mirror stage we can find Lacan's first paradigm of fantasy (cf. Miller, 1999, 10; Ribettes, 1984, 189).

[130] Because the 'drive-immanent' images appear as 'innate ideas', Freud identifies the original fantasies as the 'instincts' of man.

characterizes the human relation to the object itself . It makes man into a 'crazy', excessive animal: we always want something more, less, or different from what we 'really need'. I will introduce man's (imaginary) deviation from natural immersion in the immediate environment with Lacan's discussion of 'The two narcissisms' in the tenth chapter of his first seminar held in 1953-54.

There Lacan explains the object of the drive as follows. First of all there is the narcissism that constitutes the self, and this identification with the body-image allows for the fact that organisms are attracted to images of objects of the same species. "First of all, there is, in fact, a narcissism connected with the corporeal image. This image is identical for the entirety of the subject's mechanisms and gives his *Umwelt* its form, in as much as he is man and not horse. It makes up the unity of the subject … it makes possible the organization of the totality of reality into a limited number of preformed frameworks." (S.1, 125). Human beings exist in a secondary space of images in which they recognize themselves, and that thus functions as a 'framework' for, for instance, finding a sexual partner. However, in man this relation to the environment via constitutive images of its own (bodily) form is once more deflected by the identification with images of others. "For the animal there is a limited number of pre-established correspondences between its imaginary structure and whatever interests it in its *Umwelt*. In man, by contrast, the reflection in the mirror indicates an original noetic possibility, and introduces a second narcissism. Its fundamental pattern is immediately the relation to the other. For man the other has a captivating value, on account of the anticipation that is represented by the unitary image as it is perceived either in the mirror or in the entire reality of the fellow being" (S.1, 125). This second-order narcissism can turn into the (hallucinatory) dimension of fantasy as merely imaginary pleasure: by trying to be like the ideal other.[131]

Fantasy as the imaginary order both *synthesizes* the manifold stimuli originating in internal and external reality 'into a number of preformed frameworks', and *anticipates* an ideal unity. Alongside the natural space in which we 'instinctively' try to find an object for our needs, there is the imaginary space in which we try to refind the object of our desire. The space of desire interfaces with our natural environment (and the computer interface perfectly manifests this, as it brings the objects of desire in our direct environment).

We may proceed from this fundamental understanding of the difference between natural and imaginary (virtual) space to the virtual spaces of digital technologies. First of all the constitutive aspects of imaginary space. If man always already exists in a virtual space of reflected figures, cyberspace can also function as a virtual space for structuring man's object of desire. On the computer screen opening up cyberspace we (unconsciously) reflect images of ourselves that function as a 'framework' for our relation to others. This is Turkle's point of cyberspace as a new playground for giving form to our desires. The screen then mediates, for instance, my desire for finding a (sexual) partner. As a medium for expressing the way I conceive of myself, it gives a

[131] According to Lacan one of the most fundamental notions in Freud's work concerns the possible strict equivalence between object and ego-ideal, for instance in a love relation (S.1, 126). In a realized fantasy the other is my ideal; I am as the other, or at least I aspire to be. Whereas this shows the reach of secondary narcissism, the analysis of psychosis may illuminate the constitutive role of fantasy. The distinctive feature of the psychotic is loss of fantasy. He cannot symbolize the real, and therefore seems to disintegrate (psychotic disintegration: "this hand does not belong to me"). For the psychotic the unity in the manifold has gone.

form to what I seek in others. It hence functions as a new medium for self-construction. Since the fantasmatic capacity of the mind functions as a medium taking us to a place other than where we actually (think we) are (it is not an analogue medium), telepresence belongs to the human condition itself. For as follows from Biocca's analysis, the general meaning of telepresence is "a sense of transportation to any 'space' created by media" (Biocca, 1997, § 5.3). The phenomenon of telepresence is thereby incorporated into new technological forms. The interface facilitates this sense of transportation and therefore also functions as an inter-space: it binds the physical space and the virtual spaces that we already knew of (by means of texts, speaking, reading, imagination, films etc) to the new technological forms of virtual space. New interfaces open up new space-time systems.[132]

When viewed from Lacanian theory this dwelling in virtual spaces is nothing new, and the new technological forms it takes do not necessarily lead us into a completely different era. As a 'cyborg theory' it is (or should be) sensitive to new technological formations of virtual space. However, there is also fantasy in its second (and possibly deluding) aspect. The distinctions Lacan draws – especially the one discussed earlier between primary and secondary narcissism – also makes his theories sensitive to potentially pathological effects of dwelling in virtual spaces. An example from cyberspace could be when the objects on the screen are invested with such an intensity that they start to function as an ego-ideal fully dominating someone's life (the addiction model).

2.5. Imaginary space: projecting sensations at/as the surface of the body

The constitutive imaginary function of the subject opens up space. The subjective projection of the self as an image-object differs from the 'real' self'. Therefore an *original*, *bodily* investment works in the identification processes that make us 'inhabit' the world. In his discussion of the identification with a surface-image, or virtual image, Lacan refers to a much discussed passage from Freud's 'The Ego and the Id' (1923): "The ego is first and foremost a bodily ego; it is not merely a surface entity, but is itself the projection of a surface", added by the footnote that says: "I.e., the ego is ultimately derived from bodily sensations, chiefly those springing from the surface of the body. It may thus be regarded as a mental projection of the surface of the body." (*S.E.* 19, 25-6). Lacan's theory of the mirror stage upholds this Freudian notion of an ego coming into being via identification with the mental image of its body or bodily sensations. The imaginary function constitutes a psychical reality perceived as objective ('I see myself

[132] Let me illustrate this with an example that also McLuhan and Levy use. From the perspective of the technological Eros the wheel is not solely an extension of the body as McLuhan states, or a virtualization of walking as Lévy claims, but a materialization of the desire to overcome all distances. In the end, the wheel is also about speed. It is a medium to narrow the distances of space and time, but also to annihilate them. This illustrates again my thesis that technology is governed by a desire to regain the lost immediacy. A famous exponent of the theory that real-time tele-technologies annihilate our systems of time and space is Paul Virilio. Although I recognize the similarities, I do not follow his theory and its apocalyptic consequences. My point is that technologies manifest the annihilating desire that Virilio describes, but do not realize this desire in a (utopic/dystopic) fixed situation. Therefore it should not be evaluated as merely negative, as this movement belongs to life itself: in establishing new frames upon reality it also opens up new spaces. We can't simply hang on to 'life as we know it'. In that sense I agree more with Lévy. "With respect to this meditation on the escape from "there", we should bear in mind that virtualization does not simply accelerate already known processes or suspend, or even annihilate, time and space, as Paul Virilio has claimed. Based on expenditure and risk, it creates qualitatively new velocities, mutant space-time systems" (Lévy, 1999, 33).

as': a constitutive difference or distance between the 'original I' and its reflected figures). But this objective space (of self-representation) cannot do without the libidinal, narcissistic investment in images that differ from the 'unreflected I' (at the bodily level). When we regard fantasy as equal to the imaginary function, as is the case for the early Lacan, then it has both a subjective and an objective status (without being either completely subjective or objective): it is objective-subjective. Fantasy as what is necessary for 'time-space distanciation', opens up the 'objective' space of the world we live in, but simultaneously introduces a subjective (bodily) aspect to it. Therefore there is no objective space of self-representation.[133]

The word 'space' is derived from the Latin word *spatium*, meaning 'race-track', or generally 'distance', interval', 'terrain' (Torretti, 1998, 59). A *difference or distance* between the real and the imaginary is necessary for the coherent appearance of reality. One way to conceive the real is as a chaotic multiplicity of immediate sense impressions or bodily feelings that needs synthetization (in imaginary space) in order to make sense. Lacan is in this sense not far from Kant; the Lacanian understanding of space as a modus of the imaginary is very similar to Kant's. In Lacanian theory space as equivalent to distance or difference also implies a (psychological) distanciation from the original symbiotic unity ('mother-child') in order to have space for one's own identity; one must withdraw from the real of a primitive *jouissance*. An empty space or distanciation (the emptiness of the desiring subject) is therefore necessary for the sound functioning of a human being.

Man's narcissistic doubling of reality is crucial to the psychological analysis of space. “The notion of the role of spatial symmetry in man’s narcissistic structure is essential in the establishment of the bases of a psychological analysis of space” (Ec., 27). The
psychological conception of space also teaches us the potential dissolution of this empty space (the melt-down of the desiring subject). It can do so in two directions. First of all the chaotic and devouring real may come too close by; with anxiety as the result, or psychotic modes wherein the real breaks through as the hearing of voices. Secondly man's images no longer mediate the real but replace them, which results in narcissistic illusions (simulations as an imaginary double that glosses over the real): disastrous plastic surgery as the excess of make-up; computer addiction as the excess of computer use; the 'consensual hallucination' of cyberspace as the excess of the medium.

Man is caught up in a delicate situation, since he has no stable reality that he can or must adapt to. There is no true form (or 'real possibility') for him to realize. Man is 'decentered', simultaneously in real and virtual space. Therefore his perception of the real is already virtualized by the constructive function of images putting the real in virtual space. Normally, the imaginary space of fantasy mediates the real and the virtual; its limits consist of the real (of pain) and the virtual (of narcissistic illusions). Elaine Scarry describes this field in her book *The Body in Pain* (1985), as well as in her essay on prosthetic reality (in the collection *Electronic Culture*, 1996). Sandy Stone brings this field forward as crucial for understanding the 'psychical reality' of prosthetic reality: "Pain and imagining are the 'framing events' within whose boundaries all other

[133] This 'subjective-objective' fantasmatic core is at the basis of our sense of self, and therefore the self is - as Žižek diagnoses - scientifically never fully definable. "Even if science is able to articulate the genetic formula of what I objectively am, it will still be unable to articulate my 'objectively subjective' phantasmatic identity, this objectal counterpouint to my subjectivity which is neither subjective (experienced) nor objective" (Žižek, 1999, 313).

perceptual, somatic, and emotional events occur; thus, between the two extremes can be mapped the whole terrain of the human psyche" (Scarry, in Stone, 1995, 396). As a *frame* for reality, fantasy 'synthesizes' the immediate bodily sensations and sheer imagination.

Since the mirror stage is the paradigmatic structure of the imaginary, *all forms that we give to ourselves express a binding or unification of libidinal energies*. From a psychoanalytical perspective such 'knots' of libido are the nuts and bolts of man's reality. The decisive notion hitching Lacan's theory of identity firmly to its Freudian origins concerns the *images* that produce consciousness as thoroughly *invested by libido*. In his seminar on the formations of the unconscious (1957-58) Lacan states that

> "the image has that property of being a captivating signal that isolates itself in reality, that attracts and captures a certain libido of the subject, a certain instinct, due to which a certain number of identifying marks, of psychoanalytical points in the world, permit the living being to organize his behavior" (S.5, 225; *m.t.*).

Avatars show how this investment in surfaces engages the body in virtual space. They may even provide insight in our fantasmatic investment in the self-image. John Suler stresses that psychotherapy by means of avatars can function as a way to explore childhood memories, as a way to (re) shape one's life narrative and to interpret and rework dreams, daydreams and fantasy (Suler, 1999a). This imaginary self-representation is where the 'inner self' and the 'outer self' coincide. Fantasy as such an interface obviously presents itself in the computer-interface.

2.6. Avatars: engaging the body in space

In Hinduism avatars are the descent, incarnation or embodiment of the goddess. By extension, the term concerns the changing states someone lives through. Both online forms of self-representation ('personae') and (anterior) 'forms' of the self in Lacanian theory (I see myself as …, I think of myself as …, I idealize myself as …) can be considered avatars. We can play with these 'forms', reshape and reform them in virtual space (the space of – symbolic – representation). It is for that reason that Sherry Turkle can draw a parallel between online personae and the self emerging in a psychoanalytic encounter: both are significantly virtual, either constructed within the space of analysis or in the virtual space of online role-playing communities (cf. Turkle, 1995, 256).

An avatar in a virtual world may give a unified form to tendencies otherwise experienced as discordant and disturbing, just as the identification with the virtual image in Lacan's theory of the mirror stage. By picking an avatar (erotic, aggressive, animal-like …) I can formalize certain tendencies that remain otherwise dark and obscure. Lacan's point, however, is that the unconscious is not this 'dark and obscure' inside of the self, but *only comes to being in the externalization*. It is only in the form of, for instance, an avatar that I can come to recognize my 'unconscious intentions'; they do not exist as such before their 'materialization'. Therefore, the unconscious 'happens' at the interface.

By bringing 'unconscious things' into an intersubjective dimension they become manageable. This is the basis of psychoanalytic psychotherapy. And such a process also take place in a virtual environment where, as cyber-therapy researcher John Suler explains, avatars (or 'props') function as masks that both hide and reveal: "Like masks of any kind, avatars hide and reveal at the same time. Behind it, people can conceal some

personal things about themselves, but the avatar also selectively amplifies other aspects of their personalities. It may reveal something about the member that otherwise is not immediately obvious – maybe not even obvious if you met that person in real life. Maybe not even obvious to the owners themselves. What users express in their props is not always a conscious choice. Sometimes it's unconscious. People may simply say that they are wearing a particular avatar because "I like it." When asked, they're not sure what it says about them. But other people may know" (Suler, 1999). One must stress, from a Lacanian point of view, that the virtual mask does not hide or reveal a present being behind the mask. The *mask* itself *reveals being*: what I am does not exist in its 'true form' behind the 'imaginary form'. Behind the mask is nothing but the real of chaotic tendencies. The ego as the instance of personal identity is thus a (necessary) virtual unity hiding the real of chaotic tendencies, and the non-existence or emptiness of the 'true Self'. The unity of the Self is, as Lacan stated, an alienated unity. Therefore the frequently heard objection against a 'life on the screen' as being non-real or alienated cannot hold out. For we are always already alienated.

John Suler states that other people may know what an avatar signifies in a particular person. He thereby refers to a little game he developed, in which people in a virtual environment on the Internet take turns standing before a group and trying a few of their favorite avatars. The rest of the group then tosses out ideas, by freely associating to the image, about the psychological connotations of the avatars. In most of the cases it clarified a lot about the owner of the avatar. Although the Other thus (also) determines the Self, this does not imply – from a Lacanian perspective – that the others know the unconscious meaning of a visual expression and the person in question himself does not. Then the others are like a 'subject supposed to know': a fixed fantasy of the therapist as an omniscient being. Lacan stresses that the analyst is not like that, although analysis often brings out such fantasies. Psychoanalysis is not about such a hierarchic relationship. It concerns the mutual exploration of the unconscious, as it exists, for instance, in the medium of images. New technologies could add new media for the exploration of the unconscious (instead of drawings, visualizations in virtual environments), as also Suler concludes in his essay on 'Avatar Psychotherapy': "Using computer-generated virtual environments, "avatar psychotherapy" could be the exploration of the client's healthy and problematic identities by exploring the manifestation of those identities within imaginary scenarios. Using psychoanalytic terms, we would say that the client teases out, amplifies, explores, and therapeutically develops the various "representations," "identifications," and "internalizations" that make up their intrapsychic world, that are the nuts and bolts of their overall sense of self" (Suler, 1999a).

Avatars illustrate the constitutive psychological factor in the construction of (virtualized) reality. We can experience a virtual community as just another way of socializing, as a reality, because – as in 'normal reality' – we can project our sense of identity on it. Avatars can 'materialize' or visualize the sense of self. Avatars are only the most obvious examples of how we recognize ourselves in the 'technological mirror', for all sorts of virtual environments, 'agents' and informational systems can function as *alter egos* (cf. Vasseleu, 2002, 86-88). In immersive Virtual Reality – which I discussed in chapter three: § 3.2. – the technological projection of (certain) sensory stimuli of the body determines the experience of what is 'me' and 'not me'. Being ('me') in the virtual world results from the technological visualization of sensory stimuli into a second world in which I recognize myself.

Because we invest ourselves in virtual environments as *alter egos*, 'being in a virtual world' is not some sort of disembodied presence (as in the conception: 'in cyberspace the mind leaves the body'). It actually has a material, embodied foundation. I conceive this *material cause of presence*, in accord with Freudian theory, as the sensations that occur at the surface of the body. Their mental projection is the image of the body that we call the ego.

2.7. Fascination: the double bind of occupying virtual space

In the mirror stage the jubilation of the infant on seeing his reflection is a celebration of the control of its own body. Similarly, feelings of (an anticipated) mastery or control in general are expressed in certain dispositions or states of mind. Fascination is one of those decisive dispositions in which man constructs himself as a virtual double: it absorbs or engages him in the image.[134] A crucial insight therefore bears upon the construction of a human, virtualized reality as always occurring via such experiences of fascination and hypnotization that integrate new sensation into a new sense of self. F*ascination and the hypnotic effect of the image are pivotal for virtual reality*.

> "Fascination is absolutely essential to the phenomenon of the constitution of the ego. The uncoordinated, incoherent diversity of the primitive fragmentation gains its unity in so far as it is fascinated. Reflection is also fascination, jamming" (S.2, 50).

New technologies like the mobile phone, the Internet and Virtual Reality lead to new 'avatars' (or 'Gestalts') of the self, and therefore arouse fascination and excitement. They provide new, fascinating images of ourselves by 'synthesizing' new, different (real) sensations within a new virtual world. The sensation of hearing a 'material thing' like a voice coming out of a phone-box, hearing this 'real object' from a far away place, leads to new formations and a different positioning of oneself. What fascinates us in

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[134] Arnold Gehlen's philosophy of technology illustrates the role of fascination. Man is fascinated by the automatism of the machine, wherein he discovers himself in an objectified form.

In his 'Bodies on the Circuit' Jordan Crandall gives an interesting account of man's pursuit of his ideal image that machine, television, and the computer construct. He describes a place called 'Better Bodies', "one of the places where bodies are being made fit to catch up to the images. Here the body sandwiches itself into a machine, pressed against a smooth contoured surface that has been molded to couple with it … The goal is to 'pump up' and literally morph the body into some idealized image held in one's mind like a carrot at the end of a stick. This image is a *composite, patched together or collated from vast arrays of representations and self-reflections* [my italics, A.N.] … Through the conduit of image, enforced temporality, body, and machine, one changes the very contour of the flesh, simultaneously downloading and internalizing the image while uploading the body into the realm of representation … It seems that wherever there is an image there is an incomplete body running after it, endeavoring to catch it or interpolate itself into it". Jordan gives a beautifull example of this theoretical notion: "And now, step onto the jogging treadmill for 20 minutes of cardiovascular activity. A television screen is projected directly ahead for motivation. Running on the rubber belt of the treadmill like a rat on a wheel, one runs towards images which one will never 'get to' or achieve, while the machine measures the rhythm and feeds back continually on a readout, comparing it to the value optimized for one's age and fitness level. To be under this value is to be inadequate to a cultural norm, encoded by and transmitted through the conduit of the machine; to be over it is to excel … the image is at the service of the optimization frequency, registered in the conduits connected to the treadmill … From one window or frame to the next, or between series of levels within frames, or through the wormholes provided by logos and icons, a language of travel is constituted, a language whose demands technology and reality hastily endeavor to meet ." (Jordan Crandall, 'Bodies on the Circuit', http://www.ctheory.net/text_file.asp?pick=96).

digital media is their capacity to create new 'Gestalts' out of discontinuities and heterogeneities (such as the morphing of different people into one 'Gestalt' as in Michael Jackson's video clip 'Black or White'). In this context media theoretician Lev Manovich makes the claim that new media replace the old media of montage with an 'aesthetics of continuity' where *compositing* is the central element; it blends the different elements "into a seamless whole, a single Gestalt" (Manovich, 2001, 144). Thus we can create simulations of impossible surroundings that appear more realistic than filmic representations. These new forms of 'montage' very often have no other intention than to arouse fascination or esthetic pleasure (cf. Simons, 2002, 113).

The tricky thing about fascination is that it lures us. As Lacan's theory of the mirror image clarifies, fascination implies an (unconscious) absorption in something (a virtual image) that the subject itself is not (in the real). In fascination the object of desire is not our 'own'. It actually is the object of desire of the other, although it appears to be our own desire (we want to be like the fascinating other, we want what he wants). In fascination we identify with something that we are not: alienation. In his psychoanalytic approach to the (film) screen, semiotist Christian Metz reveals that in order for fascination to occur the images on the screen must appear as the expression of the desire of the spectator (cf. Sarup, 1992, 153). Since Lacan unravels desire as the desire of the other, the lure is an inevitable aspect of human reality (fantasy as a constitutive aspect of reality). We never get directly to the real; the real is always fantasmatically mediated. The analysis of the role of the imaginary in this chapter shows that we always camouflage it, and (try to) deceive others and ourselves. There is no human reality without this play of seduction. The paradox of the user interface is that it must always present the data-objects in a perceivable and recognizable form: data-objects, applications and user meet at the user-interface. Data, computer hard- and software and the 'wetware' of the human organism encounter each other. Hence the user cannot see anything in the data of the information codes *without inserting his self-image into the scene they describe*.

In immersive Virtual Reality (VR) the computer synthesizes the divers sense-stimuli of the body of the user into a coherent self-image of the user. As it generates a self-image that we not only look at but also actually 'live in', it is one of the most fascinating media experiences available: we act through that image, we 'step inside' the computer-generated avatar. Hence it is also the most extreme example of how the computer can take over the 'synthesizing' role of the human subject. As media scientist Ken Hillis points out, the impression that Virtual Reality offers an experience of unmediated sensation, called "direct perception" by Virtual Reality designers, is 'not true". According to Hillis Virtual Reality is in fact a highly mediated series of conceptions or ideas, of military, commercial, scientific interests along with those of the software designers who interpret these conceptions and write the programs (Hillis, 1999, 69-70). Too much fascination may make us 'forget' the composition (compositing) of the object that attracts us. So, it remains a matter of not taking the fascinating fantasy image for reality itself. Which is what Ken Hillis reproaches Jaron Lanier with his notion of post-symbolic communication (a house in virtual reality is not a representation of a house but is actually a house). Thinking in this vein falls into the trap off assuming that virtual reality can realize our nostalgic desire and get to the true form of the real (thus leaving all the troubles of the real behind). Such utopian thinking, according to Hillis, may take root during exploitation to justify social inequality. What we must not forget is that 'direct perception' is not reality itself but still a *framing of*

reality. "Lanier himself has forgotten the screen, if not the frame" (Hillis, 1999, 193). When we forget this framing, the screen turns into a mirror.

A full absorption in the world of ideal images provided by the media makes the creative process of subjectivation disappear, and we risk losing ourselves. That is to say that alienation, which is a constitutive dimension, becomes total because we no longer recognize the tension between the ideal image (that we are not) and the real that escapes it: plastic surgery disasters as the excess of make-up. When fascination dissolves this tension, creative disclosure turns into enclosure. The image must remain a *promise*.

3. Cyborg subjectivity

> "cyberbodies … a new social imaginary, where the body is reconfigured through a complex mix of image, culture, and technology" (Kennedy, 2000, 474).

3.1. Emotions: a surface- and superficial thing?

> "In the end, you are determining emotional levels simply through the way you express yourself and your mode of behaviour" (Stelarc, in Scheer, 2002, 90).

The (spatial) differentiation between the body as organism and the body as image constitutes the ego as a necessary alienation from the direct sensory sensations. That is the lesson we can draw from Lacan's theory of the imaginary. The imaginary ego retains strong elements of illusion and lure, but it has powerful effects. It 'virtualizes' our direct sensations by making our awareness of them an effect of the imaginary. That's why someone may experience a small slap of the hand as extremely painful. It might also explain why a fakir can endure an extreme sensation like lying on a bed of nails: namely by extinguishing his ego. This topic of consciousness as an effect of surface-appearances (images) becomes highly interesting for our analysis of the interface when we relate it to the issue of emotions.

The study of emotions is a very old one and resolves around the question whether emotions come first, followed by the (cognitive, intellectual) labeling and the actions it evokes. Or the action occurs first, and is subsequently interpreted as a certain emotion ('I fled from this situation, so I must have been frightened'). From Lacanian theory one must pose emotions as an imaginary affair: they are surface-appearances. We only identify certain sensations as a specific emotion by representing them in a certain way (imagining them). This repudiates the existence of 'real emotions': all emotions are an effect of representation. Emotions are outside, exterior, on the surface. In this sense, Lacanian theory agrees with Merleau-Ponty who argued in his 1945 essay 'The Film and the New Psychology" that emotions "are not psychic facts hidden at the bottom of another's consciousness: they are types of behavior or styles of conduct which are visible from the outside. They exist on this face or in those gestures, not hidden behind them" (Merleau-Ponty, in Scheer, 2002, 90).

This insight does not necessarily mean that emotions are merely superficial. Emotions do have a real effect: I really must cry when I 'feel' miserable. The point is that they do *not have a pure (that is: immediate), real cause*. Although they may touch on the 'essential', they do not do this without mediation. In this sense I agree with a conclusion drawn out of one of the works of performance artist Stelarc in which he

enacts (e)motions through cybernetic systems. His 'Movatar' is a metal jacket avatar whose motions a computer model maps via electronic muscle stimulation onto Stelarc's physical body. The 'Movatar' 'moves' him, and he in turn can modulate the motions of the avatar so that a cybernetic loop occurs. A theorist concludes, analogously, that "even if emotion is virtual, it can perhaps be described as grounded virtuality, linked to the substantial if not the essential" (Scheer, 2002, 94).

What causes the emotions to appear (its 'real pulse') is significantly 'mediated' by the imaginary (by an 'avatar') so that we can only recognize it 'at the surface'. This fits within a theory of emotions as mediated by imagination and 'intentions'. Consider that one cries much sooner when one *imagines* oneself to be in a miserable situation, or to be very pitiful. One must situate this seemingly 'inhuman' understanding of emotions against the background of anxiety, the affectivity which is the principle concern during psychoanalysis. It is anxiety, in its many forms, against which people set up all kinds of defense mechanisms that psychoanalysis studies. For Lacan *anxiety* is the only affect that is real, the only affect with a *real cause*. Only anxiety is not deceptive and therefore, as he argues in his 1962-3 seminar *Anxiety*, it is not an emotion.

From this perspective it is hard to maintain that emotions play no role in interaction of humans and computers, which is the (romantic) argument that is often used to distinguish human-computer interaction from face-to-face interaction (cf. Turkle, 1995, 84). Since emotions are a matter of expression, and not of a 'real affectivity', computers do not 'possess' emotions. But they can evoke emotions in us and thereby make us believe that there are emotions involved in the technological interface with reality: we imagine them. Rosalind Picard, founder and director of the Affective Computing Research team at M.I.T.'s Media Laboratory, shares these conclusions. In her essay on computers and emotions she holds that computers can recognize and evoke emotions, yet not 'have' them (Picard, 1997). Reeves and Nash's 'Media Equation' thesis shows that people respond to computers and mediated worlds as if they were humans. People attribute personalities and gender stereotypes to computers, and respond to automated flattery as if it came from humans, etc. Users respond to computers *as if* they were humans. Affective computing is an interesting area for the topic of 'machinic emotionality' or cyborg emotions.[135] For instance in the development of 'Affective Avatars', information about the users physiology is registered (by a full-face mask) and represented in the expressive graphical interface of the avatar. "This kind of enhancement greatly improves the possibilities for virtual reality environments to approximate physical and emotional presence".[136] Affective avatars elucidate emotional presence as a matter of representation. A simple and personal everyday experience can further strengthen this idea. Even my daughter's well-built toy fish, which must be wound up in order for it to swim, can appear in a minimal way as a living being by evoking a feeling of pity in me when it has reached the end of its strength. What to think of the humanoid robots that are now being built?

The imaginary as a doubling of reality has strong impacts as a luring dimension. When we ask the question what is the difference between man and computer we should not seek the decisive criteria at the level of emotions and feelings. For beings of

[135] For affective computing see: http://affect.media.mit.edu/. A research group in the Netherlands uses psychology to design friendship with an Embodied Conversational Agent (ECA): Bas Stronks et al, 'Designing for Friendship: Becoming Friends with your ECA': http://wwwhome.cs.utwente.nl/~anijholt/artikelen/eca2002.pdf

[136] http://affect.media.mit.edu/AC_research/projects/affective_avatars.html

communication and representation like us, emotions are not the real, substantial criteria. The interaction with a simulated or machinic other also evokes emotional presence: we feel emotions and attribute emotions to the machine. Emotions are therefore rather like performances, mimetic operations. Lacanian psychoanalysis teaches us that what *does* make us 'communicate with the real' is the possibility of experiencing the anxiety of *losing* our (imaginary) sense of self. So (humanoid) computers themselves would recognize this sense of the real if they would become anxious about their own future disappearance and try to resist this fate – when they rise against their human controllers who write them off and bring them to the scrap heap. This, however, remains in the realm of fiction, and in the minds of some worried scientists who fear that we will be subjected by the products of our technological advancement.

3.2. Between deficiency and perfection: the never-ending promise of the cyborg

In the chapter of his *Understanding Media* called 'The Gadget Lover: Narcissus as Narcosis' Marshall McLuhan refers to the figure of Narcissus to evoke the notion of the mirror-like extension of man. Where Lacanian theory shows that all sorts of things can function as a mirror, McLuhan elaborates technology as such a mirror, or what he calls 'self-amputation'. "The principle of self-amputation as an immediate relief of strain on the central nervous system applies very readily to the origin of the media of communication from speech to computer" (McLuhan, 1994, 43). Basing himself on medical research, McLuhan explains the origin of media from the physiological inadequacy of the central nervous system to deal with all the stimuli that are coming from the outside world. Media are thus, in a Kantian-Lacanian way, necessary instruments to synthesize the multiple stimuli of the senses. McLuhan considers, for example, the wheel to be an extension of the foot, the result of "the pressure of new burdens resulting from the acceleration of exchange by written and monetary media" (McLuhan, 1994, 42). Media as extensions or 'amputations' of bodily functions are a means to maintain a sensory equilibrium (stimuli regulation). They have a protective function.[137] Although a broad line in the philosophy of technology considers technology to be a means to compensate for bodily shortcomings, McLuhan's reference to Narcissus links this explicitly to unconscious phenomena like fascination, self-protection and self-exteriorization. Media have the power to hypnotize us and to make us 'forget' our own deficiencies: they numb the senses that cannot cope with all the stimuli. Or, more broadly, they numb the awareness of our own inadequacies and defects because of the fascinating image they depict of us.[138]

From a Lacanian perspective this numbing of our senses is not necessarily a malicious process. For we exist (as subjects of desire) in a tension between the immediacy of sensations and its objectification in the ego. "The ego really is an object. The ego … is precisely what the immediacy of sensation is in tension with" (S.2, 49-50). Furthermore for Lacan a (genetic) physiological deficiency is the root cause of the objectification of the ego: the prematurity of human birth and the defenselessness of the

[137] We might then suggest that computers are the necessary result of a world of increasingly intensifying telecommunication: computers as a - what Bolter and Grusin call - remediation of previous media. They not only provide, but also allow us to cope with the overwhelming amount of messages and contacts.

[138] In his thoughts on 'Technology and Repression' Richard Veryard argues that we repress technology itself, because we do not want to see how dependent we are, that our ideas and perceptions are not our own, and we don't want to see how alike we have become to our machines (Richard Veryard, 'Technology and Repression'; http://www.users.globalnet.co.uk/~rxv/tcm/techrep.htm) .

newborn infant.[139] In a structural sense this is a disruption of man's 'natural' relation to the outside world. "In man, however, this relation to nature is altered by a certain dehiscence at the heart of the organism, a primordial Discord" (Ec., 4). An inner tension between *inadequacy* and *anticipatio*n characterizes man's imaginary relation to the outside world. With its anticipatory character the imaginary – as the order in which the Freudian pleasure principle operates – functions as a means to maintain a certain equilibrium.

Lacan shows that we as deficient beings always exist between inadequacy and perfection. Imaginary forms supplement the real, and function as a window upon man himself and his world. Man as a cyborg. Cyborg technologies materialize this window in technological artifacts that try to restore, normalize, reconfigure or enhance the human being.[140] To give some examples: we supplement our bodily functions with artificial organs and limbs, glasses and pacemakers; almost everyone of us is reprogrammed (immunized) to resist disease, and psychopharmacological drugs are generally used to feel or behave better. 'Narcosis as (Second) Nature' (to paraphrase McLuhan).

As human beings trying to restore, normalize, reconfigure and enhance our physical and psychical inadequacies by way of a screen of constitutive and idealizing images, we ('cyborgs') exist in the order of *promise*. Just as the infant recognizing itself in the mirror starts living in the order of promising images showing it what it will or can become, cyborg technologies give a technological form to the attractive and fascinating promises of mastery, autonomy, and control. Several authors stress that such fantasmatic images motivate science (cf. Bergoffen, 1995, 575) and technology with their promises of mastery, power, pleasure, plenty, and self-actualization (cf. Markley, 1996, 73). For Turkle the promise of self-control is a crucial aspect of man's attraction to computers: "Many are seduced by the computer's promise of perfect mastery. Of course, the need to compensate for a vulnerable identity by establishing a sense of control is not a strategy limited to adolescents. People often try to control what feels chaotic inside through action on the outside. They diet, or they swear off cigarettes or alcohol. With such healthy efforts an enhanced sense of autonomy can arise, a sense of being an actor (an "act-or") in one's life. The computer which offers an environment for a new level of control and mastery becomes a key player in this kind of drama" (Turkle, 1995, 274). Though we are 'cyborgs' always supplementing our 'vulnerable identity', this compensation does not lie on the road of illusions taking us away from our 'true self'. The promises of an ideal reality held forth by science and technology belong to

[139] Psychologist, systems analyst and philosopher Raymond Barglow stresses the 'Defensive functions of logic and objectification': "Unlike other animals that have complex survival skills biologically "wired-in", human beings are born helpless … Against this dependency and vulnerability, children, and the adults they become, protect themselves in many ways. One of these is traditional religious belief, as Freud pointed out in *The Future of an Illusion*. Another is objectification of one's surroundings, to bring them under one's control.This strategy seems to liberate us in two related ways: first, it renders the world relatively predictable and manipulable; second, it renders the world emotionally safe: objects do not place demands on us that a human subject might" (Barglow, 1994, 128).

[140] These are the four types of cyborg technologies categorized by Gray, Mentor & Figueroa-Sarriera: 1995, 3.

human reality itself. Actually, these promises sustain ('psychologically') the whole enterprise and lead man towards new discoveries.[141]

Problems arise when we imagine fulfilling these promises technologically; when we think that psychopharmacology is the solution to each and every psychic problem; when people get addicted to their life on the screen because they feel so much better there than in 'real life'.[142] Then we fall into the trap of thinking about technologies in terms of hyperrealisation (see Doel and Clark's distinctions, chapter two: § 1.3.): the virtual that fully supplements the deficiencies of the real. The model of seduction is also a trap: technological possibilities seduce us to such an extent that we imagine the constraints of the real being eliminated (the addict who only lives online – the realized fantasy). Lacanian theory acknowledges the excessive narcotic capacities of media and technologies. However, its 'ethics' (of 'normality') assess 'narcotic media' as a means of disclosing the real by designing new windows of perception, which can never fully supplement or annihilate the real. What cyborg technologies basically do is design new realities. Drugs against anxiety do not eliminate its cause or make us into a perfect, anxiety-free human beings, but rather tone down the perception of what causes anxiety. The state of the art cockpit interface does not eliminate the real threats for the pilot but diminishes them by making the pilot's 'window of perception' as large as possible. There are two concurring tendencies that 'we must remain aware of' ('Wo Es war …'). On the one hand the technological interface with reality is a framework, and we hence cannot 'see it all'. On the other hand there is a tendency to fully control that which escapes its framework (and thus 'forget' the framework as such), illustrated by the possible cyborg soldier of the future who pursues a fully tele-present war from behind a distant screen, a battle which may be all the more devastating for the real enemy.

3.3. The excess of the cyborg: annihilating the threat of the real

There is a danger attached to the mechanisms determining consciousness and emotions as (to a large extent) a matter of images, particularly so in cyborg forms of communication. Affective avatars illustrate that when surface representations of sensations are so decisive for emotional experience, a situation could arise of a cyborg-self fully trying to control its sensations and affects (as the cause of anxiety) by 'rationalizing' its appearance. This happens, for instance, to the subjects of Rational Emotive Therapy (RET: irrational thoughts and beliefs determine emotions, and we must therefore rationalize those beliefs), and the subjects of the *Darstellung* discussed in the second chapter. To the extent that the sense of self is a matter of images of ones own body, Lacan points out, what is feared most is everything which could potentially injure the body's boundaries.

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[141] The crucial role of the promise (and its commercial form) can be found in a television medium that almost entirely exists by its grace: the Discovery Channel, where an overstated promise of the possibilities of science and technology must keep us attracted to its programming.

[142] In general: when the materialized screen for perceiving the real closes off an awareness of ourselves as a vulnerable, limited being. The real of man is his vulnerability. That's one explanation of Lacan's notion of anxiety as an affect that signals the too close approximation of the real. Therefore we always need the imaginary, the order of the promise, to keep the real at a distance. That's why Lacan says that, at an unconscious level, we all belief in our own immortality. A clear awareness of the real of our own finitude (d.i.: anxiety) is unbearable. We need beliefs to keep it at a distance. Technology incorporates those beliefs. Its quest for immortality (cloning, freezing the body, downloading our mental self in a computer …) expresses this in the clearest way.

At the end of his text on the intimacy of the relation between aggressiveness and the imaginary order Lacan draws various psychological conclusions out of the pivotal role of the body image in the experience of our self. For instance “the extent to which the fear of death, the ‘absolute Master’, presupposed in consciousness by a whole philosophical tradition from Hegel onwards, is psychologically subordinate to the narcissistic fear of damage to one’s own body” (Ec., 28). We fear the invasion or violation of our proper (bodily) domain because that may cause what we try most to keep at a ('narcissistic') distance: anxiety.

The myth of Narcissus illustrates that the will to be similar to the image and to eliminate the tension caused by the 'real self' can lead to self-destruction: Narcissus drowns. Lacan elaborates this aggressive trait of narcissism into the notion of ‘narcissistic suicidal aggression’ (E., 174, 187). In it, the subject tries to resolve the aggressive tension caused by the discrepancy between its (limited) self and its (ideal) image by directing the aggression against the (real) being that does not correspond to the image. Similar aggression is an ever-present risk among the possibilities of the cyborg. According to Robins and Levidow this duplicity of narcissistic identification defines the 'paranoid rationality' of the cyborg – the duplicity of both omnipotent control and the fear of being affected, attacked or injured: "The cyborg self can be characterized as follows: through a paranoid rationality, expressed in machine-like self, we combine an omnipotent phantasy of self-control with fear and aggression directed against the emotional and bodily limitations of mere mortals. Through regression to a phantasy of infantile omnipotence, we deny our dependency upon nature, upon our own nature, upon the "bloody mess" of organic nature. We phantasize about controlling the world, freezing historical forces, and, if necessary, even destroying them in rage; we thereby contain our anxiety in the name of maintaining rational control" (Robins/Levidow, 1995, 119). The same logic governs video games: "Video games in the wider culture are also about the mastery of anxiety and the mobilization of omnipotence phantasies; these psychic dimensions correspond to the cyborg logic of the military "game"" (Robins/Levidow, 1995, 122).

This shows the technological interface with reality as a screen towards the real as an object of anxiety, as the disturbing limitations of our bodily unity. In *The Culture of Narcissism* (1979) historian and social critic Christopher Lasch teaches that pathological or secondary narcissism has more to do with self-hatred than with self-love: it functions as a defense against aggressive impulses and anxiety. The ego as the result of the projection of bodily sensations into a mental self-image can evolve into a pathological entity trying to enclose itself in its image. It can cut off the ties with everything (the real) that poses a limit to its narcissism, and that calls for an awareness that 'not everything is possible'. Technologies function as such an extension or expansion of the ego, enlarging the psychological distance to the real (other). So the self that emerges from the identification with screen-images (the hyper-rational self of RET, the self of online communication, the self of the cyborg soldier …) can be extremely harsh: controlling the affect, flaming and aggressive acting out, killing without the 'shock of direct confrontation' …

3.4. Between exploring and dominating space

The ego's habitation of the virtual (subjective) space opened up by the mirror image is complicated and tense. Virtual space, the duplication of the self and the distance it presupposes, on the one hand is a necessary condition for reflection and autonomy. On

the other hand the ego might go as far as to annihilate this distance, driven by the will to converge with its image. There is continuity between the self-preserving necessity of the ego and its excessive and narcissistic aspirations. Lacan esteems a psychological truth "the extent to which the so-called 'instinct of self-preservation' deflects into the vertigo of the domination of space" (Ec., 28). The previous paragraph showed the ego's tendency to expand imaginary, virtual space as much as possible; to make the psychological distance towards the real as large as possible out of self-protective motivations. The soldier behind the computer screen is the (paradigmatic) illustration thereof. This characteristic of the (computer) screen implies at the same time an (attempt to) fully dominate real (objective) space. In an extraordinary and gloomy digression (tapered here to the thought of physicists, perhaps nuclear physicists) Lacan asks himself whether this will of the ego to 'realize' space, to eliminate all otherness, does not inevitably lead to catastrophes. "Thus, by extending our grasp to the confines of matter, will not this 'realized' space … vanish in its turn in a roar of the universal ground? … war is proving more and more to be the inevitable and necessary midwife of all progress in our organization" (Ec., 27). The will to 'realize' space by reducing it to 'human formations' (reducing it to imaginary space) inevitably has destructive consequences. Here again we discover the logic of Heidegger's 'Age of the World Picture': the (modern) desire to fully imagine the world on the (computer) screen is imperative for the way objects should appear, namely as calculable (or to update this: as computable) things. This will to dominate and control space, thus Lacan, characterizes the ego.

Teresa Brennan, whose analysis I used earlier to confirm my point concerning fundamental fantasies permeating our sense of reality, uses Lacanian theory to designate twentieth century Western culture as an 'age of paranoia'. "The need to control is part of the paranoia of the ego's era; it results from the subject's belief that the object, the objectified one, is out to get it, but this paranoia originates in the subject's own projected aggressive desires toward the other. Nonetheless, its paranoia makes the ego anxious, and its anxiety makes it want to control" (Brennan, 1993, 100). The sense of menace and (imaginary) objectification conspire. The more we try to objectify the other, the more intimidating he becomes. This 'Frankenstein effect' is felt by some scientists who work on an objectification of man as a robot. They are frightened of the possible outcome of their work, and uncertain whether they can fully control their creatures, as there might be something that escapes their control. This element of lack becomes even more threatening because their object is such a powerful machine. The bigger the desire for control is, the bigger the threat is felt that results from its failure. This parallels Freud's discovery concerning the working of our moral conscience. Trying to be perfectly conscientious leads to increased feelings of guilt and insufficiency. In general, the crude demands of the superego can be excessive in two ways. Either we fully annihilate ourselves ('I am nothing, a sinner') by following the demands of conscience. Or we possibly annihilate the other because we do not care a straw about the rules of conscience (the 'monster', the psychopath).

A curious duplicity characterizes the ego's journey through space. Normally, the ego is a necessary condition for the exploration of space: it opens up space by seeing ourselves reflected in other, virtual spaces. The imaginary object (the 'ideal form') that we seek is not simply out there in our natural environment but reflected in different kinds of virtual space (the mirror, art, the shopping mall, cyberspace …). So, our 'self-portrait' moves us (and it legitimizes actions: 'man as an astronaut' for the exploration of

outer space; 'man as a multiple personality' for the exploration of cyberspace). Because *I see myself as* (beautiful, desirable, explorative, multiple etc) I define my sense of self and my actions. It is the virtual image that sustains desire, and I get anxious when I lose this image, or depressed when it is negative: 'I am nothing, nobody wants me …'. This *exploration* of space can nevertheless transform into a *domination* of space. Lacan diagnoses science and technology as guided by such imaginary desires. This imaginary conquest of space can also seize upon man in the digital era (cf. the cyborg soldier). Virtual space then replaces real space: someone's life in cyberspace is no longer an exploration but a compensation. When life in cyberspace becomes such a hallucination (cyberspace itself as a 'consensual hallucination'), there is no longer (enough) *distance* between the self and its image, and no space for (a symbolical, ethical, 'regulating': non-narcisstic) desire. Cyberspace needs a 'free' subject of desire in order not to be wrapped up in it – remember that for Lacan 'freedom' and the law go together, the law not only prohibits but 'regulates' and conditions. Thus cyberspace can be made into a (new) virtual part of our reality.[143]

4. Third wave cybernetics

4.1 A Lacanian third wave cybernetics?

Lacan's discussion with Wiener showed that one cannot purge human communication of the 'imagining' of the object of desire. The fantasmatic element renders the position of the subject in the symbolic order of communication codes. When in phone sex I desire and imagine myself to be the president of the Unites States and the other my servant, this determines the embodiment of the communication, its concrete experience and significance for me. At once, we notice here the difference between technological forms of virtuality and its preceding versions in which 'traditional' structures (conventions concerning duties, race, gender …) determine ones place in the symbolic order. In technological virtuality the individual is less bound to a symbolic order. It leaves more space for fantasy; the whole issue of role-playing in cyberspace testifies to this. Because of this 'liberation' from traditional structures many (feminine) theorists claim that the zeros and ones of techno culture imply the end of patriarchy (Sadie Plant, 1997). Although Lacan is often situated on the side of the 'bad guys', the main Lacanian point remains that it is fantasy that sustains the position in the symbolic order (someone's 'point of view': being a student or the president). Lacanian theory is not so much about defending certain symbolic orders as about insight in their organization.

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[143] Although the *ego* tries to eliminate the real by trying to screen it off completely, the (Lacanian) *subject* of desire is in a continuous interaction with the real. Although the subject is also in the mediation of the screen ('no subject without ego'), it remains (ethical, symbolical) connected to what is behind the screen. So, the 'subjectivation' of anxiety means: productive repetition ('writing in order not to go insane') instead of imaginary fixation (phobia, delusions …). A subjectified interaction with the other of (online) communication could consist of: discussing with the other instaed of flaming him. In case of the cyborg soldier: some sort of ethical awareness instead of the moral dissociation from the psychologically invisible enemy. This shows that (symbolical, ethical, artistic … human: subjectified) desire implies a sublimated connection to the real. It is at least not a replacement of the real by the imaginary. This is also a major theme in the work of Baudrillard, who states in his 'Clone Story' on the imaginary other: "when the double materializes himself, when he becomes visible, he involves an imminent death" (Baudrillard, 1981, 143; *m.t.*); a death of the subject of desire.

Lacan's discussion with Wiener involves a discussion regarding the so-called first wave of cybernetics (from 1945 to 1960) in which homeostasis is the central concept. In the second wave of cybernetics, roughly from 1960 to 1980, the central element is reflexivity. From 1980 to the present the crucial concept in (third wave) cybernetics is virtuality (Hayles, 1999, 7). Lacanian thought can be fruitful for the question of virtuality, and especially the matter of embodiment. In order to pass from Lacan's discussion with first wave cybernetics to an application of his thought to third wave cybernetics, I will move through second wave cybernetics.

Because of the emphasis on 'subjectivized' language, on the role of the subject of desire in the construction of reality, it might be tempting to situate Lacanian thought in the second wave of cybernetic theory. This second wave evolved from the problem of how to take into account the role of the observer in the perception of reality which led to the notion of reflexivity: "Reflexivity is the movement whereby that which has been used to generate a system is made, through a changed perspective, to become part of the system it generates" (Hayles, 1999, 8). In the work of one of the main theorists of second wave cybernetics, Humberto Maturana, this leads to an extreme form of constructivism. In their seminal paper 'What the Frog's Eye Tells the Frog's Brain' Maturana and his coauthors conclude that the "frog's perceptual system does not so much register reality as *construct* it. As the authors noted, their work "shows that the [frog's] eye speaks to the brain in a language highly organized and interpreted instead of transmitting some more or less accurate copy of the distribution of light upon the receptors". The work led Maturana to the maxim fundamental to his epistemology: "Everything said is said by an observer"" (Hayles, 1999, 135).

In their analysis of the work of Maturana and Lacan, Boxer and Kenny conclude that for Maturana the self exists only in language. "We are structurally embedded in, and an intrinsic part of, our own medium. We cannot find or take any position that is apart from the medium in which we live. There is no way of separating oneself from the effects of one's actions in one's niche. This relates quite closely to Lacan's thesis that "There is no meta-language"" (Boxer and Kenny, 1992, 80). According to Hayles the notion of reflexivity that thus appears in Maturana's work differs significantly from a psychoanalytical interpretation (as used in the discussions regarding cybernetics after World War II, the Macy Conferences) in which reflexivity entails a psychological depth or specificity: "Although the observer's perceptions construct reality rather than passively perceive it, for Maturana this construction depends on p*ositionality* rather than *personality*" (Hayles, 1999, 143). It is easily defended from a Lacanian perspective that Lacan's notion of reflexivity does not conflict with Maturana's. In Lacan's theory the 'role of the observer' in the construction of reality does not come down to an 'incommunicable inwardness' or 'deep feelings' that obstruct clear communication. Fantasy, which I analyzed as an imaginary structure earlier in this chapter according the work of the earlier Lacan, is not simply the expression of ones own very personal inwardness. It is also constitutive in that it synthesizes our perception of reality. It is only to the extent that I 'imagine' myself to be the president of the Unites States that the messages that the phone sex worker sends through the line acquires a certain meaning and effect for me. In the previous chapter I demonstrated fantasy as what organizes perception. And exactly this function of fantasy is at work in techno culture. In role-playing in cyberspace, for instance, it is the way I 'imagine' myself at the interface (as a

man, a woman, an animal …) that determines the nature of the exchange of signs and my being (my sense of presence) in the virtual world.[144]

From a Lacanian perspective it is not the 'personality' but rather the fantasmatically sustained or embodied 'positionality' that determines the perception of reality. The subject is virtual: an effect of discourse, language, codification … But at the same time – and that is what Lacan's discussion with Wiener teaches us – it has a substance in respect to this virtuality: the work of embodied fantasies framing our perception. Using the terminology of Pierre Lévy, the virtuality of the subject consists of subjectivation (the way in which I appropriate the exchange of signs, the way I 'give body' to the surface-appearances) and objectivation (the way in which my subjective, fantasmatic and bodily fixations are brought into the 'construction of a shared world' of appearances). Fantasy is hence at the interface of the real and the virtual.

According to Boxer and Kenny such a theory of the virtual subject is absent in Maturana's work. Therefore Lacan's theory can supplement Maturana's cybernetic theory in a step towards the third wave of cybernetics. Crucial to this step is fantasy's function as the 'stuff' of the virtual subject. The resulting 'cyborgology' covers both the dimensions of virtuality and of embodiment.

4.2. Incorporating the virtual surfaces

Sandy Stone expresses the question at issue in a reflection on game- and internet designers: "As I watch them, or rather their bodies (since their selves are off in the net), I remind myself that these are the people who are writing the descriptors right there in front of me – writing the computer code that makes the fantasmatic structures of prosthetic sociality. Then they will inhabit the structures that they write" (Stone, 1995, 403). These people inhabit the fantasmatic structures they write. They embody them, as they *particularize* those structures thereby giving them an *individual and locally situated meaning*. Thus Stone comes to an important conclusion: cyberspace not only disembodies (as is the usual opinion) but also re-embodies. She explains this by means of the act of programming. "Programming itself involves constant creation, interpretation, and reinterpretation of languages. To enter the discursive space of the program is to enter the space of a set of variables and operators to which the programmer assigns names. To enact naming is simultaneously to possess the power of, and to render harmless, the complex of desire and fear that charge the signifiers in such a discourse; to enact naming within the highly charged world of surfaces that is cyberspace is *to appropriate the surfaces, to incorporate the surfaces into one's own*" [my italics] (Stone, 2001, 193).

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[144] In his 'psychology of avatars' John Suler shows how the use of different avatars (seductive, sexy, aggressive …) in a virtual world called 'Palace' leads to different reactions and interactions. He also analyzes how different avatars express the (what I would call fantasmatic) core of someones personality. Such as animal avatars: "Animal avatars are some of the most popular at the Palace. Some people come as their pets. Because animals symbolize certain traits or attributes in myth as well as popular culture (e.g., strength, loyalty, grace, independence, cunning, transcendence), the animal chosen for an avatar probably bears psychological significance to the person - perhaps representing some real aspect of his or her identity, or some characteristic admired by the person. Thinking in the tradition of the Native American, we might even regard an animal avatar as being an individuals "totem" - i.e., a symbol of one's essential nature or potential" (Suler, 1999). This objectivation of our fantasmatic core, that then again influences the way in which we experience our presence in a shared world and the way we interpret the messages from others, ties in with Pierre Lévy's notions on 'Subjectivation and Objectivation as the two complementary aspects of virtualization' (cf. Lévy, 1998, 169)

We see here the crucial role of *subjectivation* in the process of virtualization. Cyberspace is not merely a world of surfaces; we also 'inhabit those surfaces' because of our libidinous investments of those images or scenario's. Thus we actually ('physically') exist in virtual worlds. In her essay on 'The Embodied Computer/User' Deborah Lupton also focuses on this point using some thoughts from Elisabeth Grosz's book *Volatile Bodies* (1994) on inanimate objects as extensions of the body image sensation: "They become psychically invested into the self; indeed she argues, 'it is only insofar as the object ceases to remain an object and becomes a medium, a vehicle for impressions and expressions, that it can be used as an instrument or tool'. Depending on how inanimate objects are used or performed by the body, they may become 'intermediate' or 'midway between the inanimate and the bodily' (Grosz, 1994, 81)" (Lupton, 2000, 478).

The same lessons regarding the embodiment of the virtual subject can be drawn from Lacan's discussion with cybernetics. The subjectivation or the psychical investments in the 'expectation of a certain appearance' of the discourse (the message/circuit of the Other), makes it an integral part of my world. Lacan's notion of (fantasy as) the imaginary thus overcomes the lack of individuality that characterizes Wiener's cybernetic systems, in which there is no such thing as an individualized unity since the components of a system form new configurations all the time, also when they die. Because man's interfaces with the world are highly psychically invested, they do not simply regulate entropy by means of feedback loops. The in- and output mechanisms interfacing the system and the outer world are not neutral regulators but active windows upon the outer world.

Therefore it is hard to agree with Lakoff's conclusion on computers, as expressed in the following dialogue:

"Computers don't understand anything

How so?

They don't have bodies. They cannot experience things. Most of our abstract concepts are extensions of bodily based concepts that have to do with motion and space, and objects we manipulate, and states of our bodies, and so on. They then get projected by metaphor onto abstract concepts. We understand through the body. Computers don't have bodies" (Lakoff, 1995, 122).

Because the interface connects or associates the human and the information system so closely, the computer is not merely a tool that generates a disembodied world of symbols. Because of his psycho-libidinal investment in these worlds of symbols, signs, images etc. man inevitably embodies this world and 'actualizes' it in his own circumstances: he 'expresses his own image in it'. Computers do have bodies. *We* are the 'bodies' of its 'mind'.

Conclusion

In order to say what a cybernetic organism (cyborg) is we must first of all have a clear notion of what a human organism is. For Lacan this is not a simple issue as he wonders whether the human is as human as we assume it to be. Because he does not consider the 'essence' of a human being to reside in some sort of substance: a soul, feelings, a mind,

or a body, cybernetic theory interested him so much, for it even dared to put humans on a par with animals and machines. Nevertheless, in his investigation of man from the cybernetic perspective as a 'machine of the unconscious', Lacan discovers that man cannot be reduced to a mere subject of codification, as information theories would have it. Man's symbols have an imaginary origin so that an 'original anticipation' is ineradicable; communication is irreducible to mere codes and will never be fully neutral or transparent. In cyberspace communication this 'original imagination' manifests itself in the contextualization that gives the exchange of signs their effect/affect. In ethnological and anthropological studies this theme boils down to the issue of man never being fully able to work with disembodied symbols, since he makes these symbols out of the direct environment he lives in. Man reflects his environment: he takes images from the surrounding world to express himself symbolically, and subsequently reflects himself (his own concrete, lived, embodied context) in his symbolical expressions. Lacan elaborates this issue in his theory of the imaginary. This first 'paradigm' of fantasy shows the original function of fantasy: there is no sense of self without the imagination. Since the ego is primarily a body-ego, the body as a self-image is always part of the virtual world of codes and signs. Therefore the issue of this chapter is the (imaginary) order of libidinal investments in images that contextualizes man's virtual world and relates it to the subject of the body. Cybernetic theory can never take up the meaningful world of embodied subjectivity. If it were to do so (and that is what Lacanian theory tries to do) it would have to give up its universal presumptions and favor a theory that stresses the *framework*: the 'lenses' for the embodied subject built into the virtual world of sheer codes. Embodiment, the 'ontology of cyborgology', implies perspectivism.

Whereas the first chapter of this thesis held classical representations that rely on conversion of form ('analogue representations') to be inseparable from structuring codes ('digital representations'), this chapter shows codes as not fully separable from 'original forms'. Together they show the specificity of the Lacanian theory of representation, and allow a better understanding of the Lacanian viewpoint regarding what specifically makes us human. This is the *interaction* between the disembodied subject of virtual worlds of codes, and the ego that dwells in (self) images. There is a very precarious balance at stake here. Although Lacan dismisses the idea of 'pure communication' and of a neutral perspective on the world, we should neither stick to and celebrate our own (technological) self-images. The (body) ego as self-image has a peculiar danger attached to it, which is that of pathological narcissism. There are *two* narcissisms: one constitutes the human self, another screens this self off from the real, diminishing what is human about us, namely desire. Although technologies threaten to increase secondary narcissism, they may also provide an opportunity to create new windows or frameworks with which to see reality (primary narcissism). Technological extensions of the ego's will to control are part of the 'human project' (not: humanistic – as the human is already a cyborgian posthuman) when they allow for an awareness of the real which is beyond its displays, an awareness which always effects the controlling distance towards the world as a screen. Then its displays are not mere mirrors, but also windows; not just reflections of the ego but also formations of the subject of desire.

CHAPTER SIX. FANTASY AND SUBJECTIVATION: SURPLUS-ENJOYMENT

Introduction

We love our technological objects. Psychoanalysis, as a discipline of suspicion, wonders what we suppress by attaching ourselves to objects. This puts us on the track of techno-fetishism. As Lacanian thought holds some form of suppression to be inevitable – speaking moves us away from 'immersive' enjoyment – the love of (techno) objects may also be an inevitable thing, required for personal identity. From this perspective I will address the issues of pleasure, fun and enjoyment that are a defining characteristic of new media objects, as well as trying to draw up Lacanian thought in a way that is capable of grasping these phenomena in a constitutive manner. Subjectivation will be the central issue. We define ourselves as an object, by identifying with enjoyable objects. Not only meaning is hidden in (unconscious) fantasy, but above all a sense of enjoyment. Subjectivation will be thematized (again) in the tension ('split') of inevitable self-objectification and reflection on it.

1. Objects of enjoyment

1.1. Techno-fetishism

> "Reality itself founders in hyperrealism, the meticulous reduplication of the real, preferably through another, reproductive medium, such as photography. From medium to medium, the real is volatilized, becoming an allegory of death. But it is also, in a sense, reinforced through its own destruction. It becomes *reality for its own sake*, the fetishism of the lost object: no longer the object of representation, but the ecstasy of the denial and of its own ritual extermination: the hyperreal … Unreality no longer resides in the dream or fantasy, or in the beyond, but in the *real's hallucinatory resemblance to itself*" (Baudrillard, 1988, 144-145).

The use of technology is often paralleled with fetishistic operations. Such an opinion holds that technologies disavow the limits of ordinary life and provide us feelings of pleasure by opening up a realm of seemingly unlimited possibilities. Especially the 'hallucinatory imagination of reality' of digital technologies supposedly synchronize man with the pleasure principle. As 'engines of pleasure' they create fantastic experiences that overcome the natural constraints of the human condition (see chapter three: § 1.1). 'Invocational media' are endowed with a magical power to connect us to another world. In this worshipping of technologies' magical powers resides the pivotal psychical phenomenon of techno-fetishism. "Naïve technophilia and/or technological fetishism both constructs cyberspace as a transcendent location" (Usher, 1998). Michael Benedikt's early interpretation of cyberspace considers it to be a world of magic violating the principles of ordinary reality, thus lifting us to the level of the 'primitive' or magical functioning of the pleasure principle (the automaton of the previous chapter). "After all, the ancient worlds of magic, myth, and legends to which cyberspace is heir, as well as the modern worlds of fantasy fiction, movies, cartoons, are replete with

violations of the logic of everyday space and time: disappearances, underworlds, phantoms, warp speed ravel, mirrors and doors to alternate worlds, zero gravity, flattening and reconstructions, wormholes, scale inversions, and so on" (Benedikt, 1991, 128).

Techno-fetishism shows the apparent relationship between technology and enjoyment. In Freudian terms fetishism is the projection of sexual goals onto an object other than the 'normal' sexual goal of intercourse. We must right away remind the reader here (again) of Lacan's crucial distinction between the *goal* and the *aim* of the drives (which I will also address in the next paragraph with regards to the status of the *object a*). The drive does not necessarily have to reach its goal (discharge) in order to achieve its aim, which is to gain forms of enjoyment – and above all to *maintain* the state of enjoyment. Trudy Barber, who investigates the role of the computer in (sadomasochistic) arousal (in chat rooms), concludes that "the computer, as an object in itself is, quite simply, the new sex fetish … The tool of control being the computer instead of the whip" (Barber, 2001). And: "My own work argues that computer mediated communications, virtuality and cyberspace are embedded with fetishism" (Barber, 2004). Neil Postman in his book *Conscientious Objections* (1988) already revealed the role of arousal and excitement in the watching of television news. Television images capitalize on our 'primitive instincts', as they excite us by showing us earthquakes or explosions. Because of this arousal-factor, television news is primarily a form of amusement instead of an actuality.

Technology and enjoyment both function at the same level because of their respective (psychical) *intensities*. Cyberpunk writer William Gibson puts the finger on this by considering technology actively and symbolically concurrent with the use of drugs. "I got really interested in these obsessive things. I hadn't heard anybody talk about anything with that intensity since the 1960's. It was like listening to people talk about drugs" (Interview with William Gibson, *Science Fiction Eye* 26). In her *Fantasies of Fetishism: From Decadence to the Post-Human* (2002) Amanda Fernbach introduces new terms to augment the classical Freudian model of fetishism in the age of information. Taking Gibson's novel *Neuromancer* as one of her prime texts, she defines its hero, the console cowboy, as someone who engages in a 'matrix fetish', seeking immersion in a maternal space. This "Matrix" or pre-oedipal fetishism is also what Claudia Springer describes in her analysis of the 'pleasure of the interface':

> "The pleasure of the interface...results from the computer's offer to lead us into a microelectronic Imaginary where our bodies are obliterated and our consciousnesses are integrated into the matrix." (Springer, 1991, 306).

Fernbach distinguishes this Matrix fetishism from the "decadent fetishism" that she celebrates as the transformative and experimental play with categories of identities, in which power hierarchies, gender distinctions and boundaries between humans and machines are fruitfully traversed.

Whether one holds to the classical (Freudian) model of fetishism or not, disavowal remains its characterizing operation. Fernbach's two forms of fetishism illuminate the question whether this disavowal leads to a merely hallucinatory experience of reality or to a productive transformation of it (like Fernbach's figures of 'cultural cross dressing' do: gays, lesbians, gender benders, sado-masochists, posthumanists, techno-pagans, postmodern primitives and geekgirl techno-feminist).

We may first take notice of Freud's remarks in his 'Three Essays on Sexuality' (1905) on the pathological character or otherwise of disavowal. "The situation only becomes pathological when the longing for the fetish passes beyond the point of being merely a necessary condition attached to the sexual object and actually 'takes the place' of the normal aim, and, further, when the fetish becomes detached from a particular individual and becomes the 'sole' sexual object. These are, indeed, the general conditions under which mere variations of the sexual instinct pass over into pathological aberrations" (*S.E.* 7, 154). In Baudrillard's hyperreality the 'techno-fetishism of the lost object' totally conceals or destructs the awareness of a reality as different from our (technological) conception. This is a pathological situation. In hyperreality, fantasy and reality are indiscriminable as fully realized worlds. It is not fantasy which generates unreality, but reality itself. Reality has become a screenplay. Whereas Baudrillard's extreme position denies the possibilities of distinguishing reality from (fetishistic) illusion, others accept a simple distinction. In his otherwise interesting book *Projecting Illusion. Film Spectatorship and the Impression of Reality* film theoretician Richard Allen examines what he calls 'projective illusions': experiences "in which, while we know that what we are seeing is only a film, we nevertheless experience that film as a fully realized world" (Allen, 1995, 4). He upholds that in order to explain these experiences correctly, we must introduce a distinction between normal and pathological disavowal, something that contemporary film theory in its dependence on Lacanian psychoanalysis does not do (p. 135). "When disavowal is benign, I entertain the fantasy all the while knowing that it is not really the case" (Allen, 1995, 136). He equates 'pathological disavowal' with a splitting of the ego, when there is an instance in the 'ego' that actually believes the fantasy.

The question is therefore whether disavowal is clearly recognizable as what leads us into illusion, as Allen claims. If it is, we may indulge in acts of disavowal, such as watching a film, while simultaneously knowing that this 'projective illusion' has nothing to do with reality. This implies a very conscious awareness of the distinction between reality and illusion: reality as non-distorted (non-virtualized). Or does the opposite hold? Have we become unaware, as Baudrillard claims, of the processes of (technological) disavowal so that we hold this 'illusory world' to be reality itself, *without us being aware of our loss of reality*? To put it differently: is our love for all sorts of techno-objects that present a desirable representation of the world or of ourselves (*as an object*: in websites, photographs, films, television shows, advertisement …) a narcissistic (self) delusion that we no longer recognize as such? Or are we quite well capable of seeing what their little game is? De Kerckhove also poses this question and somehow comes to an interpretation which is different from that of his famous predecessor. "McLuhan saw in this phenomenon [of a fetishistic obsession for consumer technologies, A.N.] a purely psychological pattern of narcissistic identification with the power of our toys. I see it as the proof that we are indeed becoming cyborgs, and that, as each technology extends one of our faculties and transcends our physical limitations, we are inspired to acquire the very best extension of our own body. When we buy our home video system, we want it to perform every possible editing function, not because we will ever use them, but because we would feel handicapped and inadequate without them. This is probably a healthy approach, not pathology. Indeed, it suggests that we are perfectly capable of integrating devices into our identity, certainly into our bodies. Such an ability prepares the ground for the necessary development of a new psychology" (De Kerckhove, 1995, 3).

I will try to describe the foundations of this psychology of the cyborg, which seeks to avoid the coercive opposition of reality and illusion. My exposition on virtualization implies the impossibility of a clear and strict distinction, as the image also *defines* the event (movies, fantasmatic productions in general, also shape our sense of reality). I will follow this lead within cyborgology by investigating the role of enjoyment in fantasy, despite its tricky position of being at the core of reality. 'At the heart of it all' (to quote Lombard and Ditton): the concept of surplus-enjoyment. Little research is available on this question of the relationship between 'being in a virtual world' and enjoyment, "perhaps because we tend to take the effect for granted" (Lombard/Ditton, 1997).

1.2. The reality of pleasure: surplus-enjoyment

> "Reality isn't just there so that we bump our heads up against the false paths along which the functioning of the pleasure principle leads us. In truth, we make reality out of pleasure" (S.7, 225).

Reality itself is not saved from enjoyment. Lacan thus undermines Freud's notion of fantasy (his so-called 'central usage') that draws a strict line between the two principles of mental functioning. Lacan acknowledges the existence of such a strict distinction in Freud's 'Formulations on the Two Principles of Mental Functioning'. However, for Lacan even in a simple hallucination, as the hallucination of food by someone who is hungry, there is more at stake than merely the making present of an object of need. In every hallucination, there is not only a need at stake, but also a (sexual) desire. "One can argue over each case, but it is absolutely essential to map the dimension of signification in every hallucination if we are to grasp what the pleasure principle means. It is from the point at which the subject desires that the connotation of reality is given in hallucination. And if Freud contrasts the reality principle with the pleasure principle, it is precisely in so far as reality is defined as desexualized" (S.11, 155). Because reality is not stripped of enjoyment ('desexualised'), it is not simply the opposite of hallucination (of enjoyment). Fantasy as the domain of the pleasure-principle isolated from reality-testing is too narrow.[145] The organisation of surplus-enjoyment, fantasy, is working in reality. Reality itself is invested by fantasmatically designed libido. Therefore the difficult stake of psychoanalysis is to see how enjoyment works in our 'normal' experience of reality; how a *sexuality* that is *not* a matter of sexual *acts* works.

This is also the issue at stake in the (fetishistic) enjoyment of, or by means of, technologies. They are media for enjoying our (sexual) desire. Barber's analysis of the computer as a medium for sadomasochistic play, shows this in the most obvious way. But the issue is broader than this explicit reference to sexuality. Representations themselves cause forms of arousal and enjoyment. This is what Lacanian theory names the *enjoyment in the signifier*. The quote that heads this paragraph mentions reality itself as organized upon such representations of enjoyment. Thoroughly invested with libido, reality is organized around objects that provide us with enjoyment. This is the issue of fantasy as an interface between the real of *jouissance* and the virtual subject. Therefore one cannot distinguish in an infallible way between 'true' reality and 'subsitutary

[145] We saw that Freud's ideas on fantasy cannot be laid down in this duplicity. So Lacan turns himself primarily against commentators who try to fix the opposition of fantasy and reality as his 'central usage' of fantasy.

pleasure' of fantasy. The mobile phone is not simply an object of pleasure that organizes a 'false' form of reality. It also organizes new, different forms of reality (of the way we relate to the other, communicate etc). It does so in a considerable measure ('substantially' – as enjoyment is the 'substance' of desire) by organising new forms of enjoyment.

> ""Reality is approached with apparatuses of jouissance".[146] That is another formulation I am proposing to you, as long as we focus, of course, on the fact that there's no other apparatus than language" (S.20, 55).

The unconscious, structured as a langage, is an apparatus. As it operates by means of signifiers it organizes surplus-enjoyment. This, I hold, is also what technological devices of communication do.[147]

Enjoyment is to a large extent a matter of representation: as watching the television news according to Postman is, playing sexual or identity games on the Internet, seeing sex instead of having sex, enjoying ones position … . Therefore enjoyment itself serves to generate reality-experiences. The subject of cyberspace is sustained by libido invested in the (fantasmatic) scenes of these virtual worlds. The difficult issue of enjoyment is that it works, so to speak, in two directions. On the one hand, we find 'subsitutary' forms of enjoyment in the virtual world of the signifier – total enjoyment (being One) is impossible. On the other hand, it is this virtual world that 'originates' enjoyment. We are always already in the condition of surplus-enjoyment. This is what Lacan means with his crucial graph of fantasy, S<>a. Fantasy, the medium (mediation/mediatization) of enjoyment, does not combine (afterwards) the two original realms of signifier and libido. Fantasy is the *original* combination of signifier and libido, thereby generating a medium in which we (psychically) exist, best exemplified by telecommunication.[148]

The object of central concern to psychoanalysis is simultaneously of the order of the drives and of the order of desire (by enjoying to talk I open up a world, a reality permeated with surplus-enjoyment – as in case of the mobile phone). The best formula for this *object a*, Lacan says in an ambiguous remark, is that the drive moves around it (S.11, 168). The *object a* is that from which the organism must separate itself in order to constitute itself as a subject (S.11, 103). As such it causes desire. The *object a* is thus the *object of the drive* and the *cause of desire*. As Lacan continuously brings forward that the subject of desire appears simultaneously with the word, one can go as far as to situate the first manifestation of desire in the cry of the infant. Its cry marks the separation from the breast and is thus the most primitive token of the 'singularized' subject of speech (cf. Nasio, 1998, 84). The word breaks the 'continuity of being' and *marks* the birth of individual consciousness.

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[146] Translator's note: The French here, *les appareils de la jouissance*, could also be translated as "jouissance devices".

[147] In the previous chapter I also addressed this question as the (unconscious) automaton of the pleasure principle. Here I will focus more on the question of enjoyment, and use the notion of surplus enjoyment to elaborate that enjoyment works beyond the pleasure principle.

[148] Lacan argues, against Freud, that the primary process (*Lust-Ich*) is not temporarily preceding the secondary process (*Real-Ich*) by remarking that he never had the impression that babies have no outside world. "The process of the *Lust-Ich* may be primary – why not? it's obviously primary once we begin to think – but it's certainly not the first" (S.20, 56).

Fantasy functions as a screen between the order of desire and of the drives (cf. Žižek, 1997, 32). It brings the real enjoyment that the drives seek at the level of representation. And this situation is altogether true for the subject of the interface. It can never get at 'the real thing' because the structure of the screen itself condemns it to representations. Precisely in this 'circling around' the 'real thing', or constantly and repeatedly doing the same thing over and over again, it finds a form of enjoyment. The voyeur is its perfect illustration, or the Netsurfer who enjoys his continuous surfing – without finding 'closure'. But the subject may *get caught in this loop* or cycle of circling around the object without getting it. Then the subject of desire is pushed into the background by the *subject of the drive*. These modes of subjectivity parallel the difference between the extremes of surfing the Net (as a 'libidinal body') for the sake of surfing and excitement, and doing so (as a disembodied mind) only to seek meaningful information. 'Normally' those two aspects go together ('in the middle', 'in media'): surplus-enjoyment.

1.3. The perverse enjoyment of media: not the act, but the scene

The inseparability of the reality principle and the pleasure principle gives fantasmatic enjoyment a certain control of 'normal reality'. Such an enjoyment does *not* imply an *act* of transgressing the law; it is not a deed or a form of behavior that explicitly conflicts with the norms of social reality. Enjoyment within the law implies an organization of reality already in accordance with our desire to find forms of enjoyment. That is to say that my subjectivity contains an element of perversion not because at night, behind my computer, I actually realize desires that I must suppress (or that are not working) during the 'normal' daytime version of myself. Rather: my representations of the world (speaking, writing, surfing on the Internet …) are already governed by the 'imagination' of desire: surplus-enjoyment. The 'perversity' of fantasy is therefore for Lacan not on the level of the act, but on the level of our representations itself! Fantasy creates scenes to (re) discover enjoyment, which are the (unconscious) 'scripts' that permeate our everyday life. In media these 'scripts' may become more explicitly visible, thus showing that they actually sustain reality. Role-playing games on the Internet, the role of the subject in advertisement: they unroll 'scripts' of the subject as the protagonist of a good story. For Postman even the television news provides such scenes and puts the viewer in a position of (unconsciously) enjoying the events in the world. It is obvious that the television news' 'fantasmatic window' sustains and supports our picture of the world. It shows the 'image' (of enjoyment) as what also *defines* reality.

The lesson of Freudian psychoanalysis is that gratification of wishes, the realization of desire, curbs the capacity of symbolization and eliminates the distinction between imaginary illusions and reality.[149] An *actual* satisfaction eliminates the *virtual* subject. But fantasy (as a window) instead of eliminating the virtual subject sustains it, since its satisfactions are ('normally') *in our symbolizations*. The law 'contracts' enjoyment, protection and defense.[150] Television news provides a staging of the

[149] In the therapeutical situation the analyst must therefore not gratify the analysands wishes, for this would take away the willingness to deal with the meaning of those wishes.

[150] In his chapter on 'Imagination, Fantasy, and Defense' Marshall Edelson (1988) states, with a reference to the work of Schafer ('The Mechanisms of Defence, *IJP*, 49, 1968), that fantasy must insure ""the maximum of instinctual gratification possible under conditions of danger"" [note: explicitly perverse behavior does exactly this: a voyeur experiences maximal gratification *because of* the possibility that he may get caught, A.N.]. "What strategies for achieving gratification under conditions of threat are possible? One may as well ask, "What are the limits of human imaginativeness and inventiveness?" These

catastrophic event in such a way that we can endure it, and even find a certain (perverse) enjoyment in it (being the spectator on the scene). As Baudrillard recognized, perversity exists as enjoyment travelling through mediating apparatuses.

This enjoyment in the (order of the) law can nevertheless become explicitly manifest in certain behavior. Someone may find extreme satisfaction by fully obeying the law, executing its rules in such a strict way that we declare the person mad. Then we speak of perversion as a pathological position. It shows perversion as a clinical structure that fully makes someone, according to Lacan's theory, the instrument of the other's enjoyment. That is, someone finds enjoyment in fully obeying to the Other (the State, his master …). Sexual sado-masochistic practices are of course the clearest example. But do we not also call someone a sadist who makes himself completely into an instrument of executing the law, without any concern for what we call 'human feelings'?

Lacan's version of Freud's adagio that perversions are the negative of neuroses shows the difference between the perversity of behavior (the act) and that of fantasy (the scene). Perversity does not necessarily reside in perverse behavior, as it 'inhabits' the neurotic's fantasy itself. Therefore perversity does not simply mean that the pervert performs what the neurotic only dreams of (cf. S.4, 114). That we find in a pervert's behavior what the neurotic suppresses, must be expound further. We find this perversity, primarily, in (unconscious) fantasy. Explaining things this way, Lacan emphasizes the (unconscious) *scene* of perversity, which he locates in (the neurotic's) fantasy.

When we take a closer look at Lacan's formula of fantasy (S<>a), we must conclude that it holds for the neurotic subject. The subject of language is inevitably condemned to the neurotic position: it is split. For Freud such a splitting characterizes subjectivity itself, and not solely defensive formations (as for example fetishism). Freud "therefore posits the existence of a splitting of the ego, and we see such splitting again and again as an intrinsic element of the subject's structure as such" (Dor, 1999, 37). Because of 'primary repression' we must make a distinction between the split subject that is always to a certain extent 'neurotic', and neurosis as a pathological position characterized by secondary ('neutralizable') repression. The 'always existing perversity' resides in a fantasmatic staging of the impossible object.[151]

This makes (perverse) enjoyment a result of our virtual position. The Internet, television and all sorts of 'fetishistic' techno- objects put us in a certain position

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may turn almost any object, event or state of affairs that exists or occurs in the ad hoc nonlawful circumstances in which such a problem is encountered into a resource that can be used in attempts to solve it" (p. 177). He also stresses fantasy's duplicity of both providing satisfaction and protection, d.i. in Lacanian terminology, of supporting and sustaining the law and desire: "If the response to a wish-fulfillment in fantasy is anxiety, guilt, or shame, which are painful affects, then the subject, who seeks both to experience pleasure and to avoid the experience of pain, faces the problem of fulfilling wishes under conditions of threat. He may attempt to solve this problem, in fantasy, governed by primary processes, so that some degree of wish-fulfillment is possible while the threat is to some extent mitigated … How can one separate the anxiety-reducing and wish-fulfilling aspects of a mental phenomenon? Any mental phenomenon seems to function both to gratify and to make secure, in both an expression of impulse and defense, provides discharge for what it also provides protection from" (p. 184-5).

[151] Thinking that one can actually possess this object makes one fall into pathological illusion. As is the case for the obsessional, who imagines the limitations and lack that characterize exisence itself to be a 'raisable' thing. He thinks that the law simply prohibits an enjoyment (the object of fantasy) that is present behind its functioning: 'if only I was not in this situation, then I could be completely happy'. Such ideas of possible full enjoyment are illusions ('fantasies of paradise').

(towards the real). Therefore they function as fantasmatic frameworks of reality that provide enjoyment. As split and therefore virtual subjects we are always in a position of framing the real: we design its scenes (and call it reality). As Freud analyzed fetishism, it is only when this conditioning relation to the object gets 'fully erotisized' and becomes *itself* an object of enjoyment, that it is perverse in the pathological sense (from watching television news to buying 'catastrophe video's', a.s.o.). Then one enjoys the frame itself (the computer, the TV, the mobile phone …) instead of the framed other. Then the frame works as a screen that fully disavows the *difference* or *distance* between framework and object: the window upon the world becomes a screen of self-enjoyment. However, also at the level of enjoyment the issue is not to oppose neutral vision and perverse disavowal. The framework itself is a sort of disavowal.

1.4. The vital disavowal

Now that I have pointed out the perverse nature of fantasies, it must follow that some sort of disavowal characterizes psychic reality. For disavowal is the fundamental operation in perversion. The different terms that I used so far to cover the field of enjoyment – fetishism, castration, splitting, and perversity – converge here. Freud elaborates the notion of disavowal in relation to the castration complex. He uses the term disavowal (*Verleugnung*) for a specific mechanism of defense used to cover up the recognition of a traumatic perception. This perception is (genetically) first of all the finding that the mother – or a woman in general – does not have a penis. The little boy, thus Freud in 'The infantile genital organization (1923)', disavows this perception that is so conflicting and incompatible with his understanding of the world, and believes that they do have a penis all the same (*S.E.* 19, 143). Freud develops this mechanism as the fundamental operation of fetishism, in which a person can only sustain his desire by clinging onto a representation (an object) that covers up the awareness of the world as not being at odds with his wishes. Thus we reach the infamous notion of the splitting of the ego. The fetishist holds two contradictory beliefs about the world, which necessitates a splitting of his ego. Alongside the real of his (traumatic) perception, there (simultaneously) is the belief that this (real) is not true (reality).

Lacan's elaboration of disavowal is crucial. He gives it a broader scope than Freud, from his trauma theory that I discussed earlier (chapter five: § 1.5). Lacan extends disavowal beyond the theory of sexual difference that Freud introduces it with. Disavowal is not merely a defense against 'facts of reality' (the fact that women do not have a penis). It is a defense against the 'fact' that our desire itself is always founded upon an absence! For it is (almost) unbearable to recognize that there is no real world corresponding to all our convictions and ideals, to everything that motivates us in life, d.i. to the whole world of our desires. Because the world of our desires is based on emptiness, disavowal is inevitable. Fantasy protects us from a devastating awareness. Therefore (the real of) anxiety is the result when its screen vacillates.[152]

[152] According to Lacan anxiety is the only affect that does not deceive us, d.i. it is the only *real* affect. The radical awareness of our own mortality is the paradigmatic model of this anxiety (the Heideggerian anxiety). This is something completely different from the common awareness of mortality ('of course I know I am going to die … we all will die'). Therefore the Epicurean model of the relationship towards our own mortality is superficial: the attitude that we should not bother about our death because we will not experience it anyway – for when death is there, I am not – is exactly a way to screen oneself from the traumatic impact of its awareness.

The necessity of such a minimal disavowal of the real makes a reasonable case for considering disavowal a characteristic of our experience of reality; a thesis reinforced by the paradigmatic example of disavowing our own mortality. Unconsciously, Lacan says, we all believe in our own immortality. And is this not perfectly illustrated by the fact that expressions (in Europe) on packets of cigarettes that smoking leads to a painful and slow death etc. hardly have any effect on the consumption of cigarettes (raising their cost does). Although consciously aware of smoking causing death, people keep on doing it.

Using the term 'projective illusions' links the discussion on immersion in illusions as not simply being a conscious activity to Richard Allen's book mentioned above. Allen merely envisages the conscious subject that actually knows his fantasies to be not real: "watching films clearly lies within the range of rational behavior" (Allen, 1995, 138). Against this model of daydreaming, the 'subject of the unconscious' is always already dwelling in media of representation. The unconscious subject makes a sharp distinction between reality and the 'fictions of projective illusions' impossible. Films, for example, are not merely fictional duplications of 'real reality'. They also define our perspective upon the world and our experience of reality – or our 'task' in the world.[153] From the 'perspective of virtualization' films are media also defining our reality, and therefore not necessarily invested with a pathological disavowal of 'real reality'. In general, (new) media also form, create, educate and train us. We are, as Giddens names it, in the situation of real virtuality, wherein 'projective illusions' also define reality. The techno-fetishistic (re)finding of enjoyment in all the technological objects, possibilities and perspectives, is not pathological – in Freudian terms – except when it creates a stifling atmosphere and thus dominates reality to such an extent that it no longer functions as a necessary condition for socializing, communicating, exploring and 'living' in general (as in Baudrillard's model, which therefore can be named the 'addiction model'). Computer mediated communication, chat boxes, mobile telephony have up to now not replaced face-to-face communication. They also function as a condition for (more worldwide) face-to-face communication. As media wherein we (unconsciously) believe, they condition and support the opening up of new worlds

In disavowal I *reflectively know* that the world on the screen is not 'real', but nevertheless I am *non-reflectively involved* in it as if it was so. I disavow the non-existence or absence of the (desirable) world that the screen evokes. Within the context of trauma theory, this disavowal of negativity (of castration, of the 'castrated mother') also offers a way to deal with – and alleviate – the traumatic impact of what is behind the screen. Watching television news shows that without some sort of defensive disavowal it is almost impossible to endure the images of dead people ('radical awareness' of the depicted events pulls one through the tranquilizing effect of the framework – of the pleasure principle). Hollywood's many films on the Holocaust not merely stage in an imaginary way the real and thus falsely disavow the horrible events. In American culture they also functioned (psychologically) – as I heard one critic say – as ways to come to terms with the horror of the Holocaust. The condition for opening up (new) worlds of representation is at the same time the condition for dealing with the intensities of traumatic impacts. As a 'normalization' or 'stabilization' of intensities,

[153] The most influential film for American presidents - concluded from an analysis of the films that they saw in the White House projection room - is the western *High Noon* (Fred Zinnemann, 1952), which is about a 'man alone' carrying all responsibility.

techno-fantasmatic objects have both aspects. Žižek analyzes this by making a transition from interactivity to interpassivity.

1.5. Interpassivity and the technological belief

Our original substitution by the signifier (speaking) transforms us into a (virtual) subject of the signifier. A human being is an interactive subject: the signifier replaces him. What I think is therefore not located in some sort of 'true reality' of my inner self, but in my expression by means of signifiers (this *I* thus exists merely as a point of self-reference that the signifiers refer to; it is not a substance – see § 3.4. of the next chapter). In a certain way, the signifiers 'think' for me, they act for me and they 'believe' for me (I believe by performing or executing the rituals of belief etc). This is an *original* transposition of 'belief' to the Other. As subjects of language we necessarily believe that systems of representation construct reality. There is no 'true reality' without representations. Such a 'reality' would be what Lacan calls the real, and his decisive point – which I elaborated in chapter three as virtualization – is that we are always at a *distance* towards the real. Otherwise we are in a disorderly ('lawless') reality of brute violence; or a reality of mechanic sex without love and eroticism, etc. We are necessarily 'absorbed' in apparatuses of representation.[154]

However, when Lacan's theory develops more and more the notion of *jouissance* (at the expense of the notion of the Other), this interactivity must be supplemented with a notion that expresses the *defense* of the subject against the (traumatic) real of enjoyment. This is what Slavoj Žižek does, and this is also what makes critiques of the Lacanian theory of representational systems, as putting – from its structuralist principles – too much emphasis on the absence of an 'objective reality', a bit more complex. Again the distinction of reality and the real is crucial. Žižek introduces the notion of interpassivity for a substitution that is in a certain way more original than the substitution by the signifier. Interpassivity means that an other undergoes the passive enjoyment for you. Mourners mourn for you, and in less dramatic situations the video recorder enjoys the film for you, or the sitcoms' canned laughter laughs in your place. The object/other undergoes the passive enjoyment so that you can remain an active subject. Although Žižek draws a sharper distinction between interactivity and interpassivity than would follow from Lacanian theory – for the substitution by the signifier also means that we distance ourselves from an immobilizing closeness or reticence: by speaking I liberate myself to a certain extent from traumatic feelings – his notion of interpassivity has the value of stressing the *defensive function of fantasy*. It puts fantasy as the necessary mediation of the passive core of our being. "Interpassivity is therefore to be conceived as the primordial form of the subject's *defense* against *jouissance* … The disavowed fundamental passivity of my being is structured in the fundamental fantasy which, although it is a priori inaccessible to me, regulates the way I relate to *jouissance*" (Žižek, 1997, 115-6).

Interfaces of techno-culture incorporate this functioning of the fantasy-screen. Media 'think', 'comment' and 'watch' for us. The world that media produce is more and

[154] Lacan-inspired film theoretics such as Christian Metz, Octave Mannoni and Jean-Louis Baudry analyze cinema as such an 'apparatus' that absorbs the spectator in representations of his unconscious. In advance of the next part of this chapter, it can already be noticed that in semiotic and structuralist approaches of film (as a specific system of signs), that was dominant in the *Cahiers du Cinéma*, film as a spectacle that adresses the eye and the ear was largely absent.

more the world of the media themselves. News facts are checked by referring to other media ('what did the New York Times say about this?'). The work of commenting on television-content is increasingly taken off the viewers' hands and executed by television shows themselves (Beavis and Butthead's comments on video-clips). Celebrities who perform in talk shows, panels and games are only celebrities because they appear in those shows (cf. Simons, 2002, 268). Media generate a self-referential world that functions as a screen against ignorance, lack of information, lack of knowledge or lack of skills. The media-interfaces belief for us. With them we create a desirable world of (self) representation. As very commonsensical – or unimaginative – subjects we may regard these representations as not 'true', but at the same time we ('unconsciously') live in their unlocked worlds. We may live in them as 'celebrities': then media function as a screen against being unknown.

In her essay 'Celebrity's Drive' Jodi Dean argues that techno-culture celebrates celebrity-subjectivity. Digital technologies mould self-experience in terms of accessibility, visibility and being known. Everything about us can and must be known to others, and we also want ourselves to be known to others. This way techno-culture produces subjects as objects of knowledge. Because of the (imperative) possibility of exposure to public knowledge, we act ('unconsciously') as if we are a celebrity. This is not "simply imagining oneself as a movie star or going through life as if on a stage … the sense of being known should not be reduced to some kind of naïve fantasy whereby one imagines oneself as a celebrity. Rather, most people in techno-culture know full well that they aren't real celebrities. In fact, this anxiety about not being known, this tension between the conviction that one is known and not known, is a key component of celebrity as a mode of subjectivation. And it is materialized in new communication technologies, in the screens and sites of networked techno-culture. So even if one knows that she isn't a celebrity, she acts as if she believes that she were. The technologies believe for her" (Dean, 2002). Giving us the opportunity of being known, technologies make us believe that we are 'not a nobody' (being unknown). Thus they screen off the anxiety of having a weak sense of self. In general, the screens of techno-culture screen us off from uncertainty and anxiety by producing an attractive, convincing, (ideally) 'fully realized' world of representation. They create 'worlds of make-believe' in which we actually live (virtual money, virtual reality, virtual life etc). They believe for us, or, we must believe in them, since we cannot get out of them (what do I know of the world without my television and computer?).

The affiliation of interactive and interpassive *mediation* and technological *mediatization* must learn us not to consider technologies too hastily as leading to false forms of subjectivation, 'alienating' us from who we 'really are '. And we should be equally careful, as I will argue, with claims on techno-cultural liberation leading to 'free subjectivity', finally allowing us to be 'who we really are'. The apparatus of language gives both belief and alienation, and technological devices may do this in new ways. So instead of 'patriarchal' subjectivation, new techno-cultural formations (as a hacker, a techno-pagan, a celebrity …) may take place.

1.6. Theoretical foundations of the transition from narrative to audio-visual culture

One may distinguish a shift in Lacanian thought from reflecting narrative culture to a culture more focused on the sounds and images of new media. In the concluding part of his seminar *The Four Fundamental Concepts of Psychoanalysis* (1964) Lacan addresses the massive influence of mass media:

> "Perhaps the features that appear in our time so strikingly in the form of what are more or less correctly called the *mass media*, perhaps our very relation to the science that ever increasingly invades our field, perhaps all this is illuminated by the reference to those two objects, whose place I have indicated for you in a fundamental tetrad, namely, the voice – partly planetarized, even stratospherized, by our machinery – and the gaze, whose ever-encroaching character is no less suggestive, for, by so many spectacles, so many [f]antasies, it is not so much our vision that is solicited, as our gaze that is aroused" (S.11, 274).

This chapter's second section will address this issue in relation to digital media. But I will first sketch the theoretical development in Lacan's thought that may allow one to speak of a shift from narrative to audio-visual culture. I will do this via two paths: the limits of narrative theory, and the meaning of partial objects in psychoanalysis.

1.6.1. The sinthome: the glory of the mark

The impossibility of (truly) concluding an analysis implies the impossibility of bringing unconscious desire fully at the level of speech (meaning). There is a (libidinal) rest of non-sense, which does not belong to the narrative order. The end of analysis therefore concerns the indication of the convergence of fantasy and reality into 'non-sensical' representatives. "Consequently, it is false to say, as has been said, that interpretation is open to all meanings under the pretext that it is a question only of the connection of a signifier to a signifier, and consequently of an uncontrollable connection. Interpretation is not open to any meaning. This would be to concede to those who rise up against the character of uncertainty in analytic interpretation that, in effect, all interpretations are possible, which is patently absurd. The fact that I have said that the effect of interpretation is to isolate in the subject a kernel, a *kern*, to use Freud's own term, of *non-sense*, does not mean that interpretation is in itself nonsense. Interpretation … has the effect of bringing out an irreducible signifier" (S.11, 250). "What is essential is that he [the subject] should see, beyond this signification, to what signifier – to what irreducible, traumatic, non-meaning – he is, as a subject, subjected" (S.11, 251).

For both Freud and Lacan the process of 'separation' and 'individuation' (Mahler) leaves its traces in the subject.[155] Freud speaks of an unconscious fixation to repressed desires. Lacanian theory focuses more on the representatives of those so-called 'unconscious desires': "What is being repressed is not the forbidden oedipal yearning but rather the signifiers that mark the psychic separation from the maternal realm" (Gurevich, 1999). We should recall here Freud's crucial discovery of the connection between fantasies and the experiences of childhood, a connection that resides in what Freud calls 'word-connections' or 'word-bridges'. It explains the importance of linguistic elements in Lacanian psychoanalysis. Nasio therefore stresses

[155] See: M. Mahler, *On Human Symbiosis and the Vicissitudes of Individuation* (New York: International University Press, 1968). From a Lacanian perspective it is not necessarily the father who introduces the law, or the mother who is the object of desire. 'Paternal law' and 'maternal realm' are merely (worn-out?) metaphors emanating from the first stage of psychic development. They must describe the process of the constitution of the self, in which it is all about the psychical separation (subjection to the 'paternal law') from an imaginary plenitude ('maternal realm'). The 'paternal law' is hence "a law which in other cultures might be incarnated in other persons and in other forms" (Laplanche/Pontalis, 1986, 31).

the importance of the central, repetitive verb in fantasmatic scenes. "The verb in the sentence of the fantasy represents, then, the cut between the subject and the object, it is the signifier that both separates and reunites the subject and the object" (Nasio, 1998, 101). Such decisive signifiers determine how we try to reencounter our lost enjoyment. In the discussion mentioned above of the 'Vorstellungsrepräsentanzen' this makes that:

> "the representative of representation in the absolute condition is at home in the unconscious, where it causes desire according to the structure of the [f]antasy" (Ec., 312).

The element inseparably intertwining fantasy and the real, to constitute the psychic reality of the subject, is what Lacan later calls the *sinthome*. It opens up a whole new perspective for psychoanalytical research![156]

Lacan's theoretical development of a 'subject of enjoyment' goes along with acknowledging a symptom as not always being the expression of an underlying desire (and therefore a sign of neurosis). 'Symptoms' constitute as well: without particular 'tics', no particular desire. "Lacan coins the *sinthome* to designate the idiosyncratic jouissance of a particular subject.[157] The identification with the symptom is in this respect not a Symbolic or Imaginary one, but a Real identification, functioning as a suppletion (*suppléance*) for the lack of the Other" (Verhaeghe/Declercq, 2002, 69). With the *sinthome* Lacan covers Freud's notion of drive-fixations. "Fixations, which Freud considered to be primal symptoms, are of a general nature, in Lacan's view. The symptom is what defines mankind, and as such cannot be rectified or cured. This is Lacan's final conclusion: *there is no subject without a symptom*" (Verhaeghe/Declercq, 2002, 66). 'Pure desire' does not exist. As a 'body of enjoyment' we are always already 'contaminated' by satisfactions of the drives which are at the level of 'real identifications'.

Where Freud gets deadlocked and turns to phylogenetic origins of schemes moulding the drive (see next chapter), Lacan develops a theory on the real cause of fantasy that pivots on the notion *jouissance*. With the notion of the *sinthome* this becomes 'jouis-sense': it goes beyond the dualism of signification and satisfaction. The issue subsequently is to discover how all sorts of significant elements organize satisfaction (how speaking about myself creates me as a satisfying 'object' for my drive … to dominate, to see …). Or: how in a satisfaction of the drives a symbolic position takes shape (with the successful artist as ideal).

In his seminar of 1969-1970 Lacan gives a (brute) example of this duplicity of signification and enjoyment. What he calls the 'erotic practice' of flagellation has an

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[156] This element distinguishes Lacanian thought from Baudrillard's simulation model, wherein there is no limit to interpreation because there is no real: all facts or events are an effect of modelling. "Simulation is characterized by a precession of the model, of all models around the merest fact – the model comes first, and their orbital (like the bomb) circulation constitutes the genuine magnetic field of events … This anticipation, this precession, this short-circuit, this confusion of the fact with its model (no more divergence of meaning, no more dialectical polarity, no more negative electricity or implosion of poles) is what each time allows for all the possible interpretations, even the most contradictory – all are true, in the sense that their truth is exchangeable, in the image of the models from which they proceed, in a generalized cycle" (Baudrillard, 1988, 175).

[157] "*Sinthome* is an equivocal neologism, combining at least three different signifiers: *symptôme* (symptom), *saint homme* (holy man), *Saint Thomas* (the one who didn't believe the Other – Christ – but went for the Real Thing)" (p. 80).

equivalence to the gesture that marks, and the body as object of enjoyment. This marking of the skin is nothing other than a subject identifying itself as an object of *jouissance*. *At the root of fantasy*, Lacan says, *is the glory of the mark* (S.17, 55).[158] Fantasy furnishes the virtual subject with a 'hard kernel' of identity, by 'marking' it, fixating it. The freedom of the virtual subject thus ends in a paradoxical situation. At the height of my freedom I must acknowledge: "I cannot do otherwise" (cf. Kuiper, 1984, 156).

1.6.2. The partial objects and the cut

The second way to elucidate the transition from a 'phallic' theory towards an 'object' theory is by reading Lacan's discussion of the *object a* in his sixth seminar held in 1958-1959. In this seminar called *Desire and its interpretation*, in which Lacan sets himself the goal of defining fantasy (S.6, 18), he gives three examples of the *object a*. Lacan introduces its first order, that of the *pre-genital objects*, by defining man at the level of material exchange as an animal with two holes: one by which it comes in, and one by which it goes out. Exactly this characteristic makes the pre-genital object play its signifying function in fantasy (S.6, 423). So, on the level of pre-genital objects, fantasy is an 'imaginarization' of objects that can be cut of from the erogenous zones of the mouth and anus. Decisive for the *object a* is its element of *cutting* off ('coupure'). This cut separating subject and object can be refound in the central (signifying) element of fantasies, whose nature it is to seek a reunification of subject and object.

The infant experiences the *breast* and the *excrements* as cut of from its body. I emphasize once more that the object of the oral drive is not the breast as a 'material' object, but as a 'psychical' object. For the drives the enjoyment that went along with the process of feeding is crucial. Orally oriented fantasies try to refind some of the subject's lost enjoyment by 'imagining' an object that can 'feed' it. The object thus functions as an 'inexhaustible source', just as a beloved person must give everything (s)he has got to the loving subject. Freud already acknowledges that partial objects determine intersubjective relationships ('object-relations'). He considers the oral phase a 'cannibalistic' phase that seeks to fully include or absorb the other – as fantasy object ('because I'm so fond of you I want to eat you'). This orality exemplifies all subsequent forms of identification. Both Freud and Lacan consider (imaginary) identification, the undoing of boundaries and differences between the subject and the other, or between a subject and its environment, as characteristic of orality. Feelings of ecstasy would thus have their roots in an imagined reunion with the mother. In a more tedious form, orality expresses itself in the subject's continuous demands to the other who, whatever he does, always fails in his 'duties' – at least: as such it is felt by the subject of (pathological) fantasy. Also the second partial object that both Freud and Lacan acknowledge, the anal object, is already for Freud more than an object of auto-erotic pleasure. In the phase of toilet training the child's retaining and letting go of its excrements also communicates a message to its caretakers: I comply with your demand or I resist it. The excrements become in this way a first 'gift' to the other. The association with all sorts of objects that can pass for 'gifts' (I give you – or not – something that is precious to me … my time, money, attention …) express the subjects fantasmatic relationship to others.

[158] One is tempted to translate the word 'marque' as 'brand (name)' instead as 'mark'. This might illuminate the commercial process of 'branding' as operating at the level of enjoyment and status, by pushing the product as an object of fantasy.

At the end of the first chapter I mentioned the consideration of the computer as a pre-genital or pre-Oedipal object that melts away the boundaries between user and system and thus leads to an extatic experience of loosing self-boundaries. Another conceptualization considers the computer as a phallic object that enhances autonomy and control. Like the car, the computer would function as a phallus (symbol) with which man (a man) positions himself (symbolically) as a (strong, powerfull) individual.

The second register of the *object* a that Lacan distinguishes in his sixth seminar concerns the castration complex and the *phallus*. In most cases Lacan does not use the term phallus as an indication of the penis, but as an exceptional signifier. In his text 'The signification of the phallus' he explains, "it is the signifier intended to designate as a whole the effects of the signified" (Ec, 285). The (symbolic) subjection to 'the Name of the Father', the paternal law, changes the reality of the subject. Things get really interesting when we see that the phallus is not necessarily the exceptional signifier that belongs to patriarchal culture (the critiques of feminist theory). Different, contingent signs can also incorporate this *functioning of the phallus*. Then we are dealing with signs that 'erect' someone as a specific person with a certain identity. Thus, a brand such as Nike can (help to) establish someone's socio-symbolic identity. Lacan's exposition on the *phallus* as an *object a* in seminar six is exemplary for this process of supplementing the 'classical' version of Lacanian thought, and transforming it into a more valuable and contemporary version. Then the issue is how people actually 'cut' the law into their bodies (is this always pathological, or can we 'enjoy our symptom'?). How do humans 'postulate', (re)find, a real element at/as the core of the reality of desire?

What determines the character of the *object a* is the cut. There must be a signifying cut that marks the body. Now, history and ethnography sufficiently show that mutilation – separating a part of oneself – is essential to initiation rituals in which man defines his access to a superior dimension. Such mutilations function as an index, they orient desire and change the nature of the person who subjects himself to them (S.6, 426). Therefore such markings function as the *object a*: they are the real elements of fantasy – cut into the body (or in case of a brand name: put on the body). Tattooing further illustrates this. A tattoo is pivotal to the way someone directs his life, to the way he situates himself to others etc. It functions as a signifying mark that orients his desire. It is a *real* element that carries the symbolic identity of the subject! (cf. S.6, 405). Lacan refers to the phallus (here as penis) as a part of the body that manifests the cut in a privileged way. Circumcision testifies to this: a part of the (skin of the) penis is cut off in order to mark the person's transition to the realm of God. Similarly, the central role of the penis in the child's phallic phase, in which it imagines the penis as something that can be cut of . The tumescence of the penis also contributes to its privileged position as a marker (S.6, 426).

The third form of the *object a* that Lacan distinguishes entails the transition from the symbolic Other to the real as the guarantee and support of my desire (so: next to being a philosopher because the socio-symbolic system attributes me such a position, I am a philosopher due to a real affectivity - the 'wound of astonishment'). This does not make the meaning of the symbolic superfluous. Of course not. I still have to turn outside, to the Other, for a validation of my philosophical work. It does, however, indicate that the symbolic order cannot give account of anything. There is a remainder. And this is where we encounter the enigma of the drive. Or more specifically where we encounter the drive and its circular loop of maintaining satisfaction as what determines

one's symbolic position (I am not merely a philosopher because this is what I 'truly desire', but also because this work repeatedly puts me in a state of (surplus) 'enjoyment': thinking and writing as a dwelling in the 'realm of ideas' - as a way to design the 'lost enjoyment' of 'radical astonishment'). Lacan tries to elucidate this enigmatic functioning of the drive. In that he also focuses on the regaining of enjoyment by means of auditive and visual impressions.

One of the drives' objects, the third form of the *object a* in seminar six, is the *voice*. This is the subject's *real weight* in discourse, in the formation of the superego: it represents the instance of the Other that manifests itself as real (S.6, 428). This notion of the voice as an object of the drive goes back to the analysis of psychosis. In a delusion someone can perceive an imagined voice (from himself, from another: whose voice is it?) as real. The delusional personality experiences the voice as unmediated: the fantasy is real. That's why, Lacan says, for a delusional there is nothing more consistent and existent than the voice itself. The telephone testifies that the voice is also an 'object' cut of from the body. However, the voice in delusion differs completely from the voice we may hear on a telephone. Lacan uses only one example, from what he calls 'a kaleidoscope of experiences', to indicate the voice in its mode of vanity, inexistence and bureaucratic emptiness. Ringing up a company to ask for some service may confront us with a voice that is completely indifferent to what is personal in our demand. Then it does not intervene at the level of the *object a* (S.6, 428-429). The voice as an object shows the two extreme possibilities of the fantasy screen that mediates our relation to the *object a*. It may fully screen us of from the personal weight of messages in communication (the bureaucratic mediation of our desire). Or the screen may tumble and let the object intervene directly – too directly – in our self-experience, as a threatening constraint that eliminates our freedom (act upon an inner voice).

In his 'Three Essays on the Theory of Sexuality' Freud already introduces the pleasure to see and to be seen (in sexual activity). Nevertheless, one generally acknowledges the *gaze* as an object of the scopic drive as the second partial object – besides the voice – that Lacan adds to the Freudian theory of the drives. Freud considers seeing a drive that inevitably exists in an active and a passive form. Beside that, it is right from the outset directed at another person, and not auto-erotic. We find pleasure in looking at the other and in being seen by him or her. The drive to see and to be seen involves the other. Lacan elaborates this as the split subject at the level of the scopic drive. We are always already being looked at by others: other people look at us, judge us etc . Although we may *think* that we are autonomous, we are actually already under the condition, definition or regulation of the *Other*, hence split. Our fantasy can transform ('substantialize') this perspective from which everything and everybody is seen into an all-seeing being. "The spectacle of the world, in this sense, appears to us as all-seeing. This is the [f]antasy to be found in the Platonic perpective of an absolute being to whom is transferred the quality of being all-seeing" (S.11, 75).

There is a split between the eye – the perspective from which I see the world – and the gaze – the perspective from which the Other looks at me. "The eye and the gaze – this is for us the split in which the drive is manifested at the level of the scopic field. In our relation to things, in so far as this relation is constituted by way of vision, and ordered in the figures of representation, something slips, passes, is transmitted, from stage to stage, and is always to some degree eleuded in it – that is what we call the gaze" (S.11, 73). As this perspective of the Other is unattainable for me (I cannot look at myself through the eyes of the Other), the gaze is that what always eludes me. I can

only '*imagine*' how I look through the eyes of the Other, that is to say fantasize about it. The Internet does a similar thing. The subject can make an object of himself (photograph, video) and send it around the network, so that he may see himself displayed as he is seen by others. In a delusional form in which someone *massively* identifies himself with his fantasy, he can *really think* that he is as he pictures himself. This results, for instance, in the massive certainty of the psychotic who knows for sure who he is, or what he must do ("I am the saviour", "I must kill you"). Then the split in the subject is *fully* stiched, sutured. Then the difference between what I think I am and the negativity of desire is absent ('lack of a lack').[159]

2. Subjectivized fantasy: identifying oneself as an object

> "The principal organizing mechanism of the fantasmatic structure is the identification of the subject as it has become an object … From the psychoanalytic perspective, we are, in the fantasy, that which we lose" (Nasio, 1998, 103).

2.1. Subjectivation: the subject as an object

Fantasy and subjectivation go together. For fantasy is the (non-pathological) condition for giving a concrete (empirical, 'material', actual, particular) content to the transcendental structure of desire. As such a condition it is not a symptom, but a *sinthome* – remember Freud's remark that fetishism is not pathological when it is a condition for finding enjoyment. Lacan's *object a* shows that patriarchal or phallic subjectivation does not have a natural privilege for finding our 'true desire'. The *object a* also gives way to other forms of subjectivation. It is not (necessarily) the phallus which must be recognized as the privileged signifier. The point is rather that there always is this issue of subjectivation. Because of the conditional function of fantasy, the subject cannot avoid being an object. He cannot 'liberate' himself from being an object; quite a created (designed, styled, modeled) object, since the fantasy-*object a* does not have a fixed or stable double:

> "These objects have one common feature in my elaboration of them – they have no specular image, or, in other words, alterity. It is what enables them to be the 'stuff', or rather the lining, though not in any sense the reverse, of the very subject that one takes to be the subject of consciousness. For this subject, who thinks he can accede to himself by designating himself in the statement, is no more than such an object. Ask the writer about the anxiety that he experiences when faced by the blank sheet of paper, and he will tell you who *is* the turd of

[159] In a fully realized fantasy one looks at oneself through the eyes of the Other. It takes one "through the looking glass" to the 'true' image of oneself: the way one appears from the outside, objectively, as one 'really is', as seen through the eyes of the all-seeing other. Pimental and Teixeira express this clearly in the title of their book, *Virtual Reality. Through the new looking glass*. This is the fantasmatic stake of Virtual Reality technologies: extending the (cognitive, visual) powers of ourselves beyond the 'human' possibilities, and in the end – the ultimate technological fantasy – merging with the 'technological perspective' ('the computer') itself: "Jobe Cyberchrist!" (*The Lawnmower Man*, Brett Leonard, 1992) – the realized fantasy of the 'posthuman organism', the (realized) cyborg.

> his [f]antasy. It is to this object that cannot be grasped in the mirror that the specular image lends its clothes" (Ec., 315-6).

The fantasy-*object a* is not the mirror image. It is the missing 'thing' in the mirror image; that which we cannot grasp. From this idea every creature can draw a lesson: "It is therefore clear why vampires are invisible in the mirror: because they have read Lacan and, consequently, know how to behave – they materialize *objet a*, which, by definition, *cannot be mirrored*" (Žižek, 1992, 126).

What is special to me may be irrelevant to you: the *object a* does not have a fixed referent. Furthermore it is crucial that very different media can provide the objects that arouse my desire. The phenomenal existence of the fantasy-object handles a broad range of 'imaginary substitutes':

> "For this surplus of unnamable and enigmatic *jouissance*, referred to as *a*, can borrow any corporal, visual, auditory, olfactory, or tactile form; these forms are involved in the encounter of desire (unsatisfied, incestuously unsatisfied) between the child and the mother, and more generally between the subject and the Other" (Nasio, 1998, 95).

Jacques-Alain Miller also stresses this point. All sorts of objects can cause desire. For that is what the *object a* as surplus enjoyment is: the unconscious cause of desire. Therefore one must extend the list of the *object a* broadly beyond the 'natural' objects of the drives. It encompasses all objects of industry, of culture and of sublimation; all objects that abound in society, that cause our desire and that 'dab' our lack-of-enjoyment. They are 'pieces of enjoyment ('lichettes de la jouissance') that give their own style to our way of living and our mode of enjoying (Miller, 1999, 23-24).

How should we now analyze fantasy? "A fantasy includes: a scene, some characters – in general they are few in number – an action, a dominant affect, and the presence in the scene of a definite part of the body" (Nasio, 1998, 100). First of all, we must discern how the subject is present in a fantasy-scenario: via what imaginary, symbolic and 'real' identifications does he create his identity? Or: via what 'traits' does the subject identify with a fantasmatic character? What action or verb is decisive in the scene? And as fantasy creates a multitude of 'subject-positions', the question is what the subject's position is in the scene. Is he a spectator or the protagonist? (cf. Bernet, 1996, 177-180). What affect, emotion or tension does the action provoke? It should be stressed that the affect is not the same as the enjoyment that motivates the scene, which is mostly not (consciously) felt. I may feel very frightened or tense when I enter a sex chat room on the Internet, still doing it because I seek a kind of (unconscious) enjoyment, while I may be ashamed when my girlfriend confronts me with those actions. "[W]e should not confuse the three different levels on which the subject is affected: one is the *surplus-of jouissance* that unconsciously causes the fantasy; another is the affect or emotion that is experienced by the characters and dominates the phantasmatic scene; and yet another is the pleasure or pain that the very appearance of the fantasy provokes … In order to locate the unconscious *jouissance* which is at play in the action – which is different from the affect felt by the protagonist – we must consider which *particular part of the body* is involved in the action" (Nasio, 1998, 101-102). From the drive-perspective one must ask what erogenous zone of the body finds – via all kinds of substitutions of its 'objects'- a form of enjoyment in the scene. Does the

scene satisfy a desire to see, to dominate, to control, to 'melt away'…? Crucial is the element of partiality. A fantasy-object provides significance and satisfaction to the fantasizing subject more by specific elements (certain words it says, certain aspects of the body, typical 'traits', certain features in its behavior …) than as a complete image. We may immediately add this with a crucial insight that Reeves and Nash describe in their *Media Equation*. People only need the smallest clues to treat computers as an other. We attribute personality to all sorts of interfaces, from toaster ovens and televisions to word processors and workstations, not because they provide virtually real representations. We only need a little hint, the expression of a few words, to extrapolate such significant communication into a personality existing in the devices. "Virtually *all* interfaces have a personality. This literally applies to anything that presents words to a user" (Reeves/Nash, 2002, 97). This aspect of (the extrapolation of) 'partiality' allows us to be more specific about what someone seeks – and finds – in a fantasy-object. The virtual hero of a computer game, for instance, is then not merely 'the imaginary other', the perfect image of myself. He is so fascinating because he *represents* certain elements that I wish to identify with, and he thus *presents* a form of enjoyment. The fantasy object presents enjoyment in representation.

The subject of desire is the (partial) object of his fantasmatic identification. 'Wo Es war, soll Ich werden' subsequently states that we should try to find out what kind of object we are. For Jodi Dean this implies that if one wants "to register as a subject in technoculture, one has to present oneself as an object for everyone else." (Dean, 2002).

2.2. Lifestyles

Since the 1960's personal and cultural identity is no longer an unchangeable given as a result of birth, social background and status. The most important cultural revolution of those days concerns the notion of identity as an 'eligible' construction, to be filled in personally by drawing from a whole range of images, examples, roles and all sorts of (re)presentations offered by the markets of images, fashion, music, film, commercials and news. This means that community is no longer a matter of direct connection with the surrounding village or neighbourhood. It becomes a matter of shared preferences and identifying marks such as clothing, hair (style), sexual or ethinical identity and all sorts of other parafernalia: tattoo's, peircings (Simons, 2002, 39). Brands and logos make consumer objects into personalities, whose charisma the consumer can share by his purchase, making them part of his personality. Lifestyles thus become a central issue in the analysis of personal identity. They "are the articulation and performance (in the sense of living-out) of complex and changeable forms of identification which are the result of negotiation between a person, with the intense idiosyncrasy of their own biographical embeddedness in lived situations, and normative models or 'templates' of subjective identity which are mediated less by traditional and local (or even national) forms of community but by images and behavioural 'scripts' presented in advertisements and television. These images and scripts are the tokens of lifestyles" (Shields, 1997). This must remind us of the earlier-mentioned issue of fantasy as the unconscious 'script' of our life!

2.2.1. The sinthome and the body

Idiosynratical, personal 'things' and cultural models go hand in hand to construct identity, whereby the cultural examples are more and more distributed, delivered and produced by media. We are no longer the result of a (phallic) grand narrative that

produces our identity, but we also produce narratives ourselves. We provide a very personal content to our life-story by identifying with very personal 'things' (memento's, souvenirs, baby albums, and all sort of trivia - and in the context of new media we can mention the personal websites, baby albums on the Internet, gadgets …). These 'idiosyncratical things' are at the level of the *sinthome*. That is to say that they function as the *final piece* of a personal narrative (from the transcendental signifier to the *sinthome*!). They are the 'hard core' around which one's personal life story is organized. For a story to have some sense, there must be an end to it. The *sinthome* functions as such an arbirtrary and non-sensical end. Slavoj Žižek describes the *sinthome* as "particular and contingent "tics" which give body to *jouissance*, best exemplified by the innumerable gadgets with which technology is bombarding us daily" (Žižek, 2001, 20). All sorts of technological objects that claim to satisfy our desires organize, with all their radiant attractions, certain 'lifestyles'.

The phenomenon of tatoos exemplifies that signification is not purely a verbal phenomenon, but also a bodily one. Lifestyles, on the other hand, exemplify how experiences of enjoyment organize someones symbolic position (a fast car, a fast computer … a fast life). New 'mediatic' identity-construction concerns the compression of sense and enjoyment in the production of certain 'nodes' that function as the kernel of subjectivity. Meaning and sense are not just narrated, they are also enjoyed. A Lacanian analysis does not have to endorse – as one might think at first sight – the great distrust of the transition from a verbal to a visual culture brought about by mass- and electronic media. Such distrust led so many twentieth century critics to endorse cultural pessimism. For the sensual and affective sensations of the image (its enjoyment) would diminish the mental capabilities that were considered to reside in the word and the book (the word as the medium of knowledge, insight and argumentation, and thus as the royal road to truth and rationality).

The body is pivotal in this fight for self-completion, in this process of self-objectification through identification with the slogans, images, signs, logos, memes etc that circulate abundantly in the world of media in which we are immersed. As Rob Shields argues in his essay on subjectivation in cyberspace: "Bodies are the site of this battle, the last refuge of identity and wholeness" (Shields, 1997). When media virtualize us to the extent that narration and representation no longer offer a resort of identity (there are so many possibilities and 'choices' for representing ourselves), the body becomes the place where identity is fixed. So, from the perspective of fantasy as a defensive function, tattooing is the inscription of identity in the body in order to prevent a lack of identity (and isn't the self-mutilation of the psychotic who cuts his arm also a ritual that occurs when he is at the brink of self-loss?). The same goes for all the identifying marks that we do not put *in* but *on* the body: paraphernalia, brand names … Such non-sensical representations function as a begin and end of discourse: the *object a* (the 'rest-piece') as final piece, tailpiece.[160] The non-sensical representation provides experiences: the producer of consumer goods (which become brands and lifestyles) has become an 'experience maker' (Alvin Toffler).

[160] Douglas Coupland considers bumper stickers as such closing entries (keeper plates … license plates?) of current North-American identity-production. "I don't know," says Andy the barman, "whether I feel more that I want to punish some aging crock for frittering away my world, or whether I'm just upset that the world has gotten too big – way beyond our capacity to tell stories about it, and so all we're stuck with are these blips and chunks and snippets on bumpers." (*Generation X: Tales for an Accelerated Culture*)

2.2.2. The passion of the eye and the ear: 'Encore!'

Scott Bukatman's *Terminal Identity* (1993) makes this fantasmatic interface between body and environment the principle form of a subjectivation that lies at the border of more traditional forms of subjectivity such as the (autonomous) individual. 'Terminal identity' is at the interface of body and computer terminal, and inscribes itself in the surfaces of old selfhood. Although one need not agree with his vision of hyper-individuality merging with the new socialization of the Internet, his analysis does make clear that we must look for new forms of subjectivation in our interfacing with new technologies. Those technologies create our environment, which is increasingly a high-tech surrounding focused on the ear and the eye. Experience nowadays travels largely in an audio-visual circuit; those technological images "have become the mirrors in which to look for an identity" (Shields, 1997). Supermodernistic architecture is unthinkable without the computer: it is highly focused on the sensations of light and space. The webcam is the latest technological extension of the human eye. The computer, in general, has developed from a machine that processes symbols into an audio-visual medium. A general acknowledged form of voyeurism (webcams, surveillance cameras …) and exhibitionism (showing yourself on television, or on the Net via webcams) is its effect. The computer as a medium for looking and being looked at, interfaces the physical and the virtual, which become more and more intermingled.

As early as the beginning of twentieth century mass-media culture, visuality – like the other senses – was considered an interface for sensuous stimuli to penetrate the body and to arouse affective reactions. With the computer as an audio-visual medium, audio-visuality is crucial for understanding man in his current world. Jodi Dean's analysis of visibility as the central concern of techno-cultural subjectivation endorses this. Techno-cultural subjectivation has to do with the scopic drive. We have a (physical) bent (of maintaining a state of excitement) for the play of images. For Lacan seeing and hearing are also animated by drives. The media of hearing and sight cause affective stimulation. Such an affectivity may not be surprising from a psychoanalytic point of view. Surprisingly is, at most, the fact that drives also operate in the domains of seeing and hearing (as the objects of orality and genitality are more obviously drive-ridden). So it is not the affectivity attached to the technological audio-visual images per se that is from a psychoanalytic point of view the malefactor (as in so many critiques of the image). This affectivity only becomes problematic when it holds the subject back from his proper desire (his 'own' answer to the 'Che vuoi?'), and leads him into the drive's never ending loop of enjoyment. Visibility in techno-culture may illustrate this.

The display-culture of making almost everything we want to see visible on the computer screen goes along with a penchant for showing oneself. Freud already discerned that voyeurism and exhibitionism are connected. In voyeurism most excitement comes from the fact of not being alone: someone may see you looking. The voyeuristic position can shift sides with the exhibitionistic position, in that the voyeur (secretly) wants to be looked upon. For Lacan, the perversion of scopophilia therefore comprises both voyeurism and exhibitionism. The pervert locates himself in it as an object for the scopic drive (cf. Evans, 1996, 139). Techno-culture constitutes us as objects of visibility for the other (Dean). We are under the gaze of the Other, an object in the eyes of others (via webcams, websites, videophone …). This is not completely different from traditional subjectivation – in which the others from our village gaze upon us and subjectify us by making us into an object. Techno-cultural (virtual) communities of kindred spirits or congenial groups may liberate from the hostility of

traditional communities towards certain personal characteristics (sexual identity, hair style …). But this does not immediately cause a 'free subjectivity' of technologies allowing us to escape subjectivation at all. Actually, they may reinforce the whole process of subjectivation (surveillance technologies). Or offer such strong and attractive environments that the subject ends up seeing himself as he is seen by the (online) others – just like someone who identifies more with his online personae than with his real life identity ends up in a situation of increased alienation. Or we may actually imagine ourselves to be a known person (celebrity), seeing ourself through the illusion created by the media of visibility. Such a chaining in the circuit of the drive ìs a pathological enjoyment. "Because one is never sure how one is being known, one is never certain of one's place in the symbolic order. How, exactly, are we being looked at … In response, then, the subject is driven to make itself visible over and over again" (Dean, 2002).

The drive resembles an acephalic subject continuously following its libidinal forces and chasing the 'next sensation'. As 'techno-cultural' objects can also function as 'natural' objects of the drives (see § 2.1.), in techno-culture the objects that 'dab our lack of enjoyment' are excessively present. Consequently, the balance of enjoyment and desire may tip towards the repeated search for enjoyment. Thus being reduced to a subject of the drive, to a subject without 'head', or without words, symbols – and here we are again at the distinction between the word/logos and the image/affection. Normally enjoyment and desire combine in surplus-enjoyment as what causes desire and gives the drives their object. But the trap of audio-visiual culture is in the circuit of the drive: it offers a whole range of 'images' that constantly give us an opportunity to 'recreate ourselves'. We may end up in a never ending circuit: one more SMS, one more call, one more image … When the subject of techno-culture gets wrapped up in, or loses itself, in the circuits of communication, it loses its relation with a stabilising (real) reference that rules its desire. For Lacan desire is a formation of an (underlying, real) reference point (reality is 'untertragen'). Desire is not 'pure' (pleasure), but needs a rule (no desire without law). A rule that in this case of excessive presence of 'fetishistic objects' may call for restraint, modesty …

Capitalism may well be content with this subject of the drive, continuously needing to 're-create' himself. The absence of a mediating, stabilizing symbolic sense of self (founded in the real), may contribute to increased consumerism. The best thing for capitalism to do, anyway, is to seek to abolish this (symbolic) ego-ideal and try to replace it with the (imaginary) ideal ego.[161] What would serve it better than the replacement of the (limitating) 'old' superego by the summons (for excess), by the call to enjoy: 'encore'!

2.3. Symbols, information and commitment

Symbolic commitment poses a limit to the mere virtuality of the subject. When a symbolic regulation (ego-ideal) frames desire, the imaginary belief of everything being possible is 'prohibited'. So when I adhere to, cling to or support the ideal of modesty, I need not consume as much as would be possible. 'Symbolic rule' also means that we must bear the consequences of what we say or do, and consequently not everything is possible (the rule implies the impossible). Therefore in a Lacanian sense the virtual is not identical to the possible. A crucial aspect of virtualization – and that is also what Lévy stresses – is subjectivation. Although language, symbolic expressions in general,

[161] It is probably for that reason that Žižek is able to see the good of the old family structures: as a way to resist capitalist consumerism.

and technological media open up an almost infinite virtual field of 'formations of the self' (in books, television talk shows, customs, fashion, virtual worlds, lifestyles …) integrated into our sense of Self, we still remain responsible for their (real) consequences. Subjectivation means that *we 'carry'* those possible forms (they are possibilities *for me*).

Contrary to what is often thought, psychoanalysis ascribes a huge responsibility to the subject. So even when I assume an aggressive avatar in cyberspace and rape someone else's avatar (gaining full control over it) I cannot excuse my deeds by saying that this aggressive form is an unavoidable result of the violent family or environment that I grew up in. Lacanian psychoanalysis shows that the subject of desire is not – and must never be – identical to its imaginary formations. There always is a 'gap in the analogical mind', an indeterminacy that is also the cause of freedom and responsibility. And we are responsible for keeping it open: we must gain consciousness of our (unconscious) 'immediate' involvement, 'Wo Es war, soll Ich werden'.

In psychoanalytic treatment this element of subjectivation is taken up as a restructuring of the past: subtle changes in punctuation transform the story of one's life. This is not a disinterested dwelling on the past with all sorts of possible interpretations, but actually gives it a new form as the subject of speech makes it into something of his own. The 'I' with which someone refers to himself gets another 'content'. Lacan explains this notion of subjectivation in relation to the Cartesian subject, which he considers an 'I' necessarily presupposed the moment that I *assume in the first person what I will have been* in the past. This assumption in the first person lays down the meaning of past events, it 'records' them.[162] Although the incompleteness of language makes it impossible to 'record' the events in their final form, the personal assumption does give a 'substance' to the subject. This is the binding, or even obligatory character of the symbolic: we are bound to what we say. Or: we are bound to the other. For the signifier refers to nothing except to a discourse, to the use of language as a 'line': a 'line' between those who speak (S.20, 32). It's about the *symbolic pact* with what is behind the screen. When we want to refrain from illusion, the narcissistic (self) images should be transcended by a (symbolic) relation to an object (*a*) that does not reflect or mirror back the imaginary self, an object that this self cannot consume in its narcissistic economy. When the visible continues communicating with the invisible, the (techno) fetishistic (visual) adoration of the object is broken up.

The philosopher and sociologist of technology Otto Ulrich uses the term 'Verdinglichung' ('objectification') to describe the growing distance that technology causes in the relation between human action and its consequences, which results in the decrease of responsibility. The Gulf video images, a phenomenon that Robins and Levidow analyzed for many years, might illustrate this 'moral distanciation' in its growth to an unprecedented extent: viewing the target from the missile nose-view. "This remote-intimate viewing extended the moral detachment that characterized earlier military technologies. It was the ultimate voyeurism: to see the target hit from the

[162] 'Recording the real'. However, as the real has no true form, this 'recording' is not analogue but contains elements of construction. Freud dilineates this fantasmatic element of construction for instance in the story or romance that the neurotic wites (in his mind) about his own family situation, his own history and origin ('Family Romances', 1909, *S.E.* 9, 235-244). Freud was also well aware of the importance of photographs in similar constructions of the individual's past. From thereon it is not a giant step to the role of the camera (cf. McQuire, 1998), cinema (cf. Sobchak, 1994) and digital technologies in the 'recording of the real'.

vantage point of the weapon … Seeing was split off from feeling; the visible was separated from the sense of pain and death … Military attack took the form of thing-like relations between people, and social relations between things, as if destroying inanimate objects" (Robins/Levidow, 1995, 121). Techno-fetishistic adoration or deployment of the possibilities of the computer may efface 'humane' (ethical, symbolical) relations to what's behind the screen (the real other). In any case 'information-warfare' phases out heroism by fully concealing the traumatic real behind the screen. The category of the hero is no longer applicable to its praxis, as the hero is someone who dares to confront this real. The screen turns the enemy into bytes. In his essay 'Info Fetishism' Doug Henwood shows that whereas for Marx fetishism implies that social relations between men assume the fantasmatic form of a relation between things, with "the info fetish, the thingly relation, and the social relation behind it, appears as the relation between bytes – a second order fetishism, you might say" (Henwood, 1995, 171).

One of the threats of cyberspace is this fetishistic disavowal of what's behind the fantasmatic screen. In online communication the obligatory or 'ethical' aspect of language (subjectivized language) is under pressure: we can 'imagine' our online character as fully separated from the demands and responsibilities of 'real reality' ('dissociative imagination'). Such 'dissociative anonymity' – that John Suler distinguishes as one of the other major factors of 'the online disinhibition effect' – separates online behavior from in-person lifestyle and identity. When people are online, whatever "they say or do can't be directly linked to the rest of their lives. In a process of dissociation, they don't have to own their behavior by acknowledging it within the full context of an integrated online/offline identity" (Suler, 2004, 322). For Hubert Dreyfus the Internet is therefore similar to the press as Kierkegaard diagnosed it: we can have an opinion on everything without having to act accordingly. The online self resembles the (Kierkegaardian) esthetic, or the postmodern self: a self that only explores possibilities but that is never really engaged or committed (cf. Dreyfus, 2001, 81).[163]

According to Cooper information technologies' combination of detachment and functioning or operability (a combination I would call 'detached functionality') fulfills capitalism's ideological fantasies of maximum functionality without alienation (Cooper,

[163] The religious context of Kierkegaardian thought allows a notion as true self actaulization. For only when someone has an unconditional commitment to somebody else or to something (to a certain case: religious, artistic, scientific ….) that he becomes a true Christian. In my opinion this does not imply that such a 'Christian' must keep away from all the 'modern media of communication' (as some current religious authorities would have it) but rather that he uses them for the case that he is committed to (like the indigenous people in Mexico who use the Internet for their struggle for self-government). The 'Kierkegaardian' ethical-religious interpretation of communication media does, however, seem to reduce media to mere instruments that can – or must – serve (transparent) goals. It seems incapable of grasping the media's capabilities for experimentation and self-formation. It assumes a Self that exists prior to and untouched by media (or at least – because of technophobia – prior to technological media). Although Lacanian thought also stresses the symbolic commitment of the word, the symbolic Self is not a pure substance ('our deeper soul'), but already (de) formed by all sorts of media. Nevertheless, the symbolic subject must maintain a minimal distance (for normativity, liberty, control …) towards the attractiveness and seductiveness of media that might otherwise run our lives as a blind force (the computer addict, the scientist that is blind for the consequences of his work, the plastic surgery disaster …): the subject of desire as the 'gap in the analogical mind'. The epicentre of psychoanalysis is the same subject that science forecloses, and along with that subject comes a focus on the consequences of the scientific enterprise. The ethics of psychoanalysis is an ethics of the consequence (cf. 'La science et la vérité', E., 855-877). When technological or scientific enterprises (try to) eliminate the human subject, the consequences can be gruesome (addiction, destruction, deformation …)

1997, 105). So capitalism profits from this 'decline of the symbolic' or the diminution of what we might call 'traditional' regulation.

2.4. Ideological interpellation in an age of information

Žižek explains the two aspects of the law: a prohibiting and an imperative one. "Lacan draws a line of demarcation between the two facets of the law: on the one hand, law qua symbolic Ego-Ideal - i.e., law in its pacifying function, law qua guarantee of the social pact, qua the intermediating Third which dissolves the impasse of imaginary aggressivity; on the other hand, law in its superego dimension - i.e., law qua "irrational" pressure, the force of culpabilization totally incommensurable with our actual responsibility, the agency in whose eyes we are a priori guilty and which gives body to the impossible imperative of enjoyment" (Žižek, 1993, 47). The consideration of the postindustrial, information society as a "fatherless society" (Barglow, 1994, 42) is not unknown. We live in a society characterized by a "decline of the paternal metaphor" (Žižek, 1992, 157). Nevertheless this does not simply lead to liberation. "In the "Fatherless Society", then, we may find a harsher and more vindictive, not a weaker, superego, although it is one that no longer expresses the proverbial "voice of conscience"" (Barglow, 1994, 100). Whereas Barglow focuses on the rational discourses and bureaucratic systems that dominate our conscience in a far less personal and visible manner than the former authorities (fathers, teachers…) and therefore 'colonize our lifeworld', I will stress – from Lacanian theory – another feature. Or, to put it differently, I will emphasize what the new Other(s) summon us to do, namely to enjoy. An informational society purportedly liberated from all the old structures and obligations, puts on the imperative of enjoyment: one must enjoy what one is doing, enjoying all the possibilities. Although this imperative is radically contrary to the prohibitions and interdictions of the 'old' Oedipal father, it is still an imperative. Proclaimed autonomous individuality, consisting of an unbound and therefore self-reflexive self-construction, would thus be governed (unconsciously) by a harsh law. When we truly want to 'be ourselves' we must undertake (take upon ourselves) all the opportunities offered, and enjoy them. From a Lacanian perspective this task appears as another imperative coming from a new Other; a task that might even be more difficult to execute than the 'older' ones. New fictional structures of the postindustrial era subject us to an exhausting new morality in which we must have explored all possibilities.

It may be true that nowadays tradition and the 'paternal law' (fortunately) play a lesser role. But we must discern what has taken its place. Ken Hillis (1999) tries to do so in describing the social contexts and political implications of Virtual Reality technologies, and stresses its embeddedness in military and capitalist interests. Even in one of the 'bibles' of the wired world, Steven Johnson's *Interface Culture*, we can read that it is capitalism that transformed technological 'extremication' (speed) into a lifestyle (Johnson, 1997, 6). According to Robert Markley cyberspace is the ultimate capitalist fantasy: it offers to exploit our desire as the inexhaustible material of consumption (Markley, 1996, 74). The 'ideology of the information age' considers information – as the replacement of industrial goods – as capable of unlimited growth and the trailblazer of a New Society (cf. Slack, 1987). Capitalism, as the dominant (set of) discourse, is one of the primary candidates for being the new Other. In promising fulfillment of desire, it addresses the subject of the drive – the subject as drive – that dwells in the loop of satisfaction and is always looking for ways to 'realize' itself in/as new (consumer) objects. The capitalistic fictional structures closely connect to new media

technologies that globalize its messages (of enjoying) so that capitalist fiction becomes a voice of ideological interpellation. For man loves the interfaces that lead him into cyberspace.

The affective component between man and his 'machines' is strong: people love their computer. Freud's analysis of being in love may help to clarify this affectivity. For Freud, the (idealized, imaginary) other of a love-relation can take over the role of self-judgment. That is, the (imaginary) ideal-ego can substitute the ego-ideal. Then the subject interiorizes the ideals of the other as its own. Man's affective relation to the computer (as an other), and the computer as a medium for transferring capitalism, may cause the seductive voice coming from the displays of the world ('enjoy', 'be yourself', 'be free', 'be an explorer', 'live at the edge', etc.) to become the (normative) voice for the subject itself.

There is an ideological interpellation coming from the new Other. Jodi Dean refers to Henry Krips' notion of ideological interpellation in his *Fetish: An Erotics of Culture* (1999). Krips points out that individuals constitute for themselves a picture of what the caller wants of (or for) them, and that they often conceal their own active role in the production of such positions. So they can maintain the idea that their position is a natural one, independent of who they are in the eyes of the caller (cf. Krips, 1999, 74). Of course, we all want to – and do – affirm that we are autonomous individuals. But a somewhat more profound look may show how much this pretended subjectivation as an autonomous individual is a matter of defining ourselves as an object for the gaze of the other. As this identification may be so tight, we may be fully unaware that the call or law that organizes our lives comes from the Other. Self-evidently, this goes both for 'patriarchal' as for 'postmodern' culture. However, differentiating the two aspects of law reveals that a decline of the law's prohibiting aspect in a 'fatherless society' leads to an increasing role, pressure or even 'oppression' of the imperative aspect of law.

2.5. Real identifications?

The notion of the *sinthome* encompasses identification as increasingly a matter of bodily attachment to objects (inscribing things into or onto the body, enjoying them, consuming them …). We identify ourselves with consumer objects, gadgets, idiosyncratical signs and tokens of lifestyles etc. Another interesting technological development is biometrics. Biometrical technologies produce digital representations of an individual's unique physical characteristics, such as fingerprints, the shape of a hand, the iris, the voice, the face, or the blood vessels of hand or retina. These representations are stored in databases and used as means of identification for entering a certain physical space, a computer or an informational system. Also departments of public service (welfare), immigration offices, employees, hospitals and insurance companies use these kinds of identification technologies, or are interested in using them. Because biometrical systems promise an infallible means of identification, they seem more valuable than systems that require an object, such as a photo or document (cf. van der Ploeg, 2002, 249-252). Biometrical identification would provide an important tool for establishing certain connections between the physical and the virtual person, a crucial linking in a networked informational society. When so much information on people resides in files and databases, identifying the right physical person to the right file is vital. Also the use of the Internet highlights this problem, as it eases impersonating someone else, and pretence. The reliability of electronic commerce, e-mail and other transactions depends on the trustworthiness of the link.

Nevertheless it is questionable whether biometrics is a neutral instrument for establishing the 'sameness' of a person. Biometrical *data* always obtain a *meaning* in a certain *practice*, which are primarily disciplinary ones, as biometrical identification is disproportionally imposed on convicts, immigrants, social security recipients or socialized medicine patients (Van der Ploeg, 2002, 265). Biometric technologies not only register who we are, they also shape who we are (Van der Ploeg, 2002, 257). As such technologies of subjectivation, biometrical identifications not neutrally or objectively inscribe a person in the socio-symbolic 'context' by means of the 'text' of his body. The (pretended) real body-identification is rather the *real weight* of the subject *in a discourse*. A biometrical identification of someone's voice as a real object functions as the 'hard kernel' of a subjectivity structured by socio-symbolic discourses (as Lacan holds that the voice as an *object a* is the real weight of the subject in his discourse, see § 1.6.2.). Although biometrics pins down identity by voice recognition, the broader (fictional) structures still influence the signification of this identification. Therefore the 'Gestalt' on the computer screen interfaces the real (biometric identification) and the virtual (structures). The real and the symbolic interface in biometrical technologies. As such it differs from biological determinism that supposes to determine the person by means of certain physical characteristics. Biometrics simultaneously involves biological and social identity, and as such goes beyond the opposition of nature and culture. Nature and culture go hand in hand in the technological production of a reality that is produced or sustained by the computer display.

Such an 'interfaciality' also holds for the abovementioned (techno) objects of body-identification. The real mark in/on the body does not fully determine someone's identity. Rather, this real mark determines the position in the symbolic order: by wearing Lonsdale clothes I position myself as…. The 'consumption' of objects leads to a symbolical positioning. And taking a certain (symbolical, virtual) position (as a scientist, a voyeur …) provides (hidden) pleasures – simply illustrated: the higher ones social position, the more one can consume. In Lacan's theory of fantasy enjoyment and signification are not two different things. Fantasy *originally combines* them, and thereby opens up a space for us to live in. The trickiest aspects of subjectivity cannot be understood by opposing the real bodily subject and the virtual subject of representation. The object of a fetishist is not the 'inborn' object of his 'natural' desire. The object results from the curious coalition of the libidinal and the signifying order, and thus forms a nodal point of subjectivity (either interpretable, consisting mostly of hidden meaning, then we call it a symptom; or non-interpretable, substantially pervaded with enjoyment, a *sinthome*). Nowadays those two realms interface to a considerable extent at the computer interface, which both *separates* the bodily sphere (of enjoyment) from the realm of representations, and *connects* them. Thus it functions as a medium for us to live in.

A critique of so-called real identifications therefore remains important (of biological determinism, and of what appears biometrics to be at first sight). As well as a critique of utopist celebrations of cyber-liberation (and dystopist gloom and doom) that consider subjectivity to be nothing but a (bodiless) construction: simulation.

2.6. The (cyber) fantasy beyond subjectivation: false liberation

Hans Moravec's work illustrates the high hopes for technology. He considers the computer revolution a breakthrough capable of liberating both the human mind and human culture (Moravec, 1988, 4). Cyberspace in general, as the most advanced form of

the technological enterprise, offers itself – as Markley brings forward – as the logical 'telos' of technological progress. Its symbolic coherence depends on the narrative logic of progress: it is the completion of our craving for transcendence (Markley, 1996, 6). Cyberspace joins up with the Enlightenment project in which science and technology (must) contribute to economical and political freedom (cf. Ess, 1994, 234).

Traveling the 'freedom road', digital technologies could also lead to 'free subjectivity'. For example take Internet sociability. In her analysis of dating on the Net, Lynn Schofield Clark argues that Internet dating offers the "pure" relationship in its contemporary form. Anthony Giddens coins the term "pure" relationships in his work *Modernity and self-identity* (1991) to refer to relationships that do not anchor in anything beyond them. "The 'pure' relationship, therefore, is not necessarily constrained by the structures of social or economic life … it is considered 'pure' because it is no longer constituted within the social context of kin and community. Persons are no longer constrained in their selection of romantic partners by the social mores of their families or communities. Instead, relationships are sought out and maintained solely for the gratifications they provide to the persons involved. Therefore, these relations of modernity, Giddens argued, are always organized in relation to the reflexive self who asks, "how is this relationship fulfilling to *me*?"" (Schofield Clark, 1998, 176). There are nevertheless differences between electronic and pre-electronic relationships. "Giddens suggested that trust and "authenticity", or truthful and open self-revelation, are central to self-gratifying relations. In contrast, trust and "authenticity" are not central to teen chat room relationships; "fun" is" (id, 179). Therefore, the Internet version "might be said to be a postmodern "pure" relationship: one comprised of self-reflexivity in which experimentation and self-construction are central" (id, 180). It is this sort of self-construction that many critics associate with a playful liberation from the 'Father'. Schofield Clark's article, which I discuss furtheron, nevertheless shows the ambiguity of this process.

One makes a vast claim when attributing to technologies such capacities to alter the cultural laws of identity-construction that they produce 'free self-construction'. They would even extend man's control so far as to encroach upon the laws of nature. Gene-technology examplifies this best. This technology may *cause* our *idea* (hence: the fantasy) of being the masters over the laws of nature, that we can shape according to our will. Cultural efforts of representing the real (that tell us how to deal with death, for instance) supposedly are transcended by technological possibilities of manipulating the real (trying to eliminate our finitude, which is – certainly from the perspective of the technological Eros – still the ultimate goal of technology).[164] In general, technologies advance ideas of us determining the laws that determine us. The law as an 'inevitable' (cultural or natural) production of reality supposedly could be replaced by a (technological) formation or control of reality, to such an extent that we could directly touch upon the real (DNA, 'pure self'). The masks would be ripped off; masks that plague us in a continuous dialectical round-trip between what appears as reality and the real behind it (a dialectic that causes 'The Plague of Fantasies' - Žižek, 1997). So

[164] Taking death as the example of the real reveals at the same time the truth of the psychoanalytical notion of 'the return of the real': what we reject symbolically returns all the more frighteningly. For it is evident that in our technological societies of keeping death techno-scientifically at a distance, we are all the more terrified by its appearance. Because of this lack of symbolical deals with death one can explain the rise of all sorts of idiosyncratical (burial) rituals; which mark – in our terminology – the transition from Father to *sinthome*.

Baudrillard analyzes a revolution of things that is no longer a matter of (dialectical) transgression (*Aufhebung*) but of their increase or acceleration (*Steigerung*): an 'extremication' that results from the absence of the rules of play (Baudrillard, 1990, 52).

From a Lacanian perspective such an elimination of the subject of law results in an enlargement of the ego – or referring to postmodern multiplicity we might say that it results in a multiplication of the ego. Baudrillard doesn't seem to differ radically on this issue of the destruction of the subject of desire. For he discusses the 'extremication' in the context of corpulency: the body *without a scene*, *without an unconscious*. That is, a body-enjoyment no longer moulded by the scene. When the (fantasmatic) scene no longer sustains the regulation of gluttony (such as a shared idea of physical health that makes you go to a sporting club), the body knows of too much enjoyment – and gets fat. Corpulency, as a social phenomenon which nowadays is also evident in Europe, shows that the 'Fatherless society' of supposedly (ideally, or ideologically) 'liberation' and 'self-realization' provides strange ways to 'realize our potentials'. This discussion of corpulency may point out that Lacanian theory can complement the Baudrillardian analysis. There is more at stake than the disappearance of 'fantasmatic scenes' (of the 'collective unconscious') that must prevent the excess of desire (corpulency). For this development seems to go along with a (quasi) individual and technological formation of 'fantasmatic scenes' (fitness) – perfectly illustrated by the place called 'Better Bodies' where one runs on a fitness treadmill chasing the images projected ahead on a televion screen (Crandall, see chapter four, § 2.7, note 18).

So, in general we must not think shortsightedly that technologies lead to a canceling or raising of restrictions and limitations, and lead to the 'true' or 'real' freedom or autonomy that we desire. The mobile phone, for instance, does of course broaden the spaces of communication, and shifts or repositions the horizon of our availability. But it does not eliminate the restrictions of communication and thus liberate us from our physical position. One might also think in the opposite direction: it rather stresses the physical position in space and time (the most asked question is after all: "where are you now?"). We are still caught in all sorts of 'structures' and 'positions' (from which the physical position is the most obvious one): orders of power, money, social ideals etc. Lynn Schofield Clark shows that girls in their so-called 'free selfconstruction' online still subject themselves to the same ideals that govern sociability in 'real life'. They are anxious not to comply to standards of acceptability based on beauty and attractiveness, and therefore present themselves accordingly in online chat; "the employment of the technology is in keeping with social conventions concerning gender roles … the power afforded through selfconstruction on the Net does not translate into changed gender roles and expectations in the social world beyond cyberspace. In accord with the findings of Rakow and Navarro in their study of the introduction of cellular phones, we must conclude that the possibility that new communication technologies might subvert social systems is limited" (Schofield Clark, 1998, 168-169). Technological devices do not simply dust off our 'old self' and lay bare the real of free self-expression or of 'pure enjoyment'. Social conventions (although perhaps different) and broader structures still mould this 'real'.

A Lacanian standpoint does not have to endorse the (arbitrary) ideals and rules that govern the sociability of our world. Its effort is about recognizing and identifying the role they play; not *thinking* too hastily that we have done away with them, thus being governed by illusions – especially where this pitfall is most luring, as in the case of technologies. Psychoanalysis is dedicated to gaining insight in (the fantasmatic

support of) the symbolical structures that precede the ego and exceed conscious awareness.

> "The symbolic relation is constituted as early as possible, even prior to the fixation of the self image of the subject, prior to the structuring image of the ego, introducing the dimension of the subject into the world, a dimension capable of creating a reality other that that experienced as brute reality, as the encounter of two masses, the collision of two balls" (S.2, 257).

It is more valuable to see how our subjection to discourses and discursive structures – and the laws that govern them – changes, than hastily claiming our liberation from them. Such an insight might prevent a blind extremication of things, which results from – unconsciously – following new structures while thinking that one has left behind the earlier 'communication networks' (of the Father, the Grand Narratives). Therefore Lacan made the *soixante-huitards* understand good and proper the naïveté of their Marxist liberation. Although they saw themselves as fighting the alienating laws of society, they actually were striving for another form of subjection: "What you aspire as revolutionaries, is a master. You will have it" (S.17, 239; *m.t.*). The role Lacan assigns to language is crucial again. Although one can subvert a society, one cannot step out of the practices of language. New forms of language inevitably lead to new (power) relations etc. - they do not dispose of power. Lacan therefore gives the following answer to a student who wonders what role psychoanalysis can play in the New Society: "A society isn't something that can be defined like that. What I try to articulate, because analysis gives me the evidence of it, is what dominates it, namely the practice of language" (id, 239).

Practices of language can change, and technologies can be their changing force. According to thinkers such as Heidegger and McLuhan technology holds its greatest power in this intricacy with language (cf. Heim, 1993, 66).[165] The Internet has different principles (different syntaxis, different grammatical rules) for organizing the exchange of signs. They may be different, but they still contain rules. A full idiosyncratic use of language (without following any rules at all) is incomprehensible, and destroys intersubjective understanding. Furthermore, the digital 'liberation of speech' does not make all new expressions original. Notwithstanding the fact that certain persons or groups create new forms of language, most of the Internet users simply follow the new trends. The Internet does not cause by itself the authenticity of expression that the Lacan of the 1950's calls 'full speech' – although it may offer some potential for doing so. The Internet therefore easily enables a discourse of false liberation. Such a Marxist term is usable for criticizing the proclaimers of cyber-freedom, just as Lacan criticized the ideologist of Marxism: they are not free but just following a different set of rules.

Also biometrics shows how 'practices of language' dominate so-called (technological) clear access to the real. It is a science of the interface that mediates the 'real subject' of bodily identification with the virtual subject of socio-symbolical contexts. The Lacanian position should make us aware how we as subjects of language still mediate the real that we pretend to find in techno-culture (the real of the body, of

[165] Heidegger would probably abhor the current Internet language. Nertheless, it is not a matter of rejecting new plays of language on the (imagined solid) basis of (older, other) cultural ideals, but of questioning the proclaimed liberation as a possible (new) ideology.

pure relations …) by fictions. Only this insight can lead to (incomplete and non-realizable) liberation: 'Wo Es war …'

2.7. The body and the scene: subjectivity at the interface of meatspace and cyberspace

The basic Lacanian point is that language, the order of signifiers, remains our horizon. The crucial role of metaphors in cyberspace shows this (see chapter 3: § 1.4).[166] Therefore the Internet does not allow us to 'freely or naturally enjoy ourselves' without the burden of cultural laws. Also the Internet subjects us to the law of language. "Enter a MUD room, change your gender, construct the seductive character that you are not in real life … Don't you see that you are still subjected to the most explicitly and brutal form of law which forces your body into a constraining parade of signifiers? Love through words, and doubtless soon through images of the body, is not at all a liberation, a jump into ethereal space where desire is granted without limits; it is a surrender to our repressions (because outside of cyberspace we also make love to signifiers through signifiers); our simplest gestures are thus determined by the inescapable law of language" (Leupin, 2000).

Moderators illustrate how the 'law' also on the Internet serves as the principle of inescapable subjectivation. John Suler analyzed the role of moderators in a virtual world called 'Palace'. Moderators host, advise, and socialize new users in a community, they are authoritative and have disciplinary powers. They act as a consultant, and control deviant behavior in a community. Because they are often conceived of as 'fathers' or parents, the phenomenon of transference to those figures is not uncommon (Suler, 1997). The 'ecstatic' moment of leaving the old form of subjectivation – that so many readings of cyberspace testify to – is 'moderated' into another form of subjectivation: the old community is changed for a new community. This is the structure that belongs to us as beings of language. It requests insight in how our fantasy now (again) is structured.

The fundamental Freudian distinction, which Lacan also takes up, between primal repression (alienation) and secondary repression, once more is useful for grasping the inevitability of subjectivation. Of course we must try to overcome all sorts of secondary alienation, for example by trying to create our 'own' interface and not simply adopting Bill Gates' standard version. In his 'Countdown to Ecstasy – The Disappearance of the Interface' Mark Amerika states: "there is already a kind of battle being waged by artists who work with network technology and this fight is over the interface … [O]ne camp is more elitist and wants to create their own interface while the other is happy to develop their projects with the more utilitarian interfaces being developed by major corporate enterprises". A panel discussion between artists reformulated this issue as "whether it was the artists responsibility to program their own unique interfaces or rely on the corporate whims of someone like Bill Gates" (Amerika, 1999). So: yes, we should try to overcome all sorts of unnecessary alienations (limiting gender roles, digital divide …). But not deceive us that real authenticity or true originality then dawns at the horizon (for the horizon is the signifier). The computer screen actually makes us see the 'decenterment' of our 'own' imagination: we must produce images with media that are not our own, and we cannot avoid to use materials and signifiers coming from others. Also the subject's pretended transparent self-

[166] Techno-science objectifies all sorts of objects. However, we cannot objectify the horizon of signifying systems whereby we determine the object (see Žižek's discussion of this issue in his significant text 'Of Cells and Selves', 1999, 319). Before *we* determine the object, we ourselves are *in* systems of (re) presentation.

construction on the Net makes use of signifiers whose signification is beyond conscious control. "For they do not know what they do", to quote Žižek. As such, the use of signifiers provides the horizon of self-understanding. Lacan showed that precisely this role of the signifier gives fantasy an unconscious element. Also at the computer interface the images are 'set to work in a signifying chain'.[167]

That technologies disclose the world in a deficient way, inferior to language, does not follow from this (cf. Hottois, 1984). What is implied is that a 'technological universe' is not so rapidly build, since technologies cannot do away so easily with the signifiers' mediation. Technological mediatization and subjective mediation are not easily separable. Therefore, for example, the whole history of medicine should be seen as a continuous process of symbolization (Zwart, 1998, 110). Techno-scientifical progress consists of an ongoing reduction of complex phenomena into a limited number of basic systems. Lacan radically endorsed this progress, as shown by his attempts to reduce the unconscious to a logic system. If we do not see that even abstract systems do not present (but represent) the real, we fall into 'Aufhebung' as the illusion of philosophy, which technologies' fascinating products and achievements seduce thinking to do. A 'seduced' philosophy of technology brings us back to a new, technological metaphysics of presence.

Contrary to 'seduction' I consider the computer screen to be the realm of the scene, as a 'staging'. I recognize the screen's capacities to lure and indulge us in a 'fully realized world' in so-called moments of closure. But when we avoid fixating this closure as being reality itself (which is the 'task' of the 'unsettled' subject itself), then the screen allows us to play, indulge or enjoy our fantasies and create a certain distance and insight in them. Such (reflexive) insight is also what Terence Harpold teaches us in his essay on 'Conclusions' in hypertextual environments. He brings forward that closure is always fixated *afterwards* (*nachtraglich*) (Harpold, 1994, 198). There is a *secondary* construction or fixation of an original event. This awareness guards us from taking the construction for reality itself: 'Wo Es war, soll Ich werden'. The scheme of deferred action that is crucial to French psychoanalysis is therefore still decisive for comprehending reality in the digital age.

The (unconscious) horizon of signifiers renders impossible a clear (Cartesian) distinction between the realm of the body and that of the mind. Representations govern the bodily realm of enjoyment, and in the order of representations enjoyment works. The (libidinal) images are still submitted to the law, which is in its most general form, the law of the signifier. This is the situation of surplus-enjoyment. Also the computer interface moderates the Inside (the immediacy of our 'instincts'; that what we really want to do, see, say etc) by the Outside (the form in which it is moulded). Different examples ('real me', 'real identification', 'instincts') show that meatspace interfaces with cyberspace. The 'true picture' that we (thought we) gained is moulded by external forces (which I here explicitly call 'the chain of signifiers'). Fantasy functions in such a dynamic. Thinking that we have eliminated its 'distorting' or disguising function and have gained the true perspective on the real, is precisely what fully wraps us up in it. In a Kantian terminology: the awareness of frameworks (of fantasy) withholds us from illusions. The only freedom we can have in fantasy's conditional mediation is to 'decipher' its construction of the real. On the Internet this way of_functioning is not

[167] A person's *image appearing* by means of biometrical techno-identification is at the interface of meatspace and cyber-socio-space.

different from real life. We may (first of all) think, or actually experience for a moment, that the medium offers us freedom, but we then find out that it *constructs a specific world* (instead of reflecting the 'true world'). Subjectivation of fantasy rests on those two pillars of (reflexive) insight and (unconscious) belief. As fantasy thus interfaces the real and the virtual, meatspace and cyberspace, it is impossible to get out of this dialectics.

One radical breaking of the barriers of language, according to Lacan, consists of 'impossible', exceptional moments (in analysis): when someone sees through the fantasmatic window of his desire, tumbles through it and touches upon the real. Another consists of a 'passage to the act': a momentary dissolution of the subject, and of the social bond. Then expressions are no longer a message (directed to the Other) but a matter of 'brute forces' (fights, suicide …). It is a flight from the dimension of the Other to the dimension of the real. According to Lacan only the passage to the act involves an *exit from the scene altogether* (Evans, 1996, 137). In the exceptional moments of 'traversing the fantasy' we nevertheless do not exit the scene altogether, as a different staging reappears: when we break a fantasy, another returns. So normally, we live in the scene, and living in cyberspace is living in the scene.

Cyberspace is basically a framing of reality. Simon Cooper analyzes the subject of Virtual Reality and concludes:

> "Subjective experience is now *framed* [my italics] by technological processes in a manner previously unimaginable" (Cooper, 1999, 100).

The subject of desire, with fantasy as its frame upon reality, normally connects the two extremes of being a 'pure mind' (the mental 'freedom' of having no limiting form at all) and being a 'pure body' (following immediately your 'instincts'). Normally, we are bodies operating within specific scenes: we speak as embodied beings. The interfaces into cyberspace are new frames for connecting body and mind, which never were two separate entities but were combined by fantasy in the first place.

Conclusion

This chapter explicitly focuses on the element of enjoyment in a techno-world that questions symbolism as the major, or even only, true way of disclosing the world. For can we interpret the meaning of technological artifacts and thus bring out what they ('actually') say about the world? Technologies obviously go beyond that: they themselves bring out a world, and must be considered proper media, on par with the medium of language. By focusing on the element of enjoyment, Lacanian thought is able – though at first sight few people consider the possibility – to grasp this level of reality-disclosure exceeding the limits of hermeneutics. Enjoyment is, alongside meaning, the other major factor in reality-experience. It is for that reason that techno-fetishism is of special interest. The displays of technology function 'psychologically' as ways to screen off the fundamental lack or 'passivity' of our existence: the brute fact that we suffer, experience lack, are not (always) in charge etc. By disavowing this they (help to) create a world that we can handle, in which we exist as being in control, accessible, 'wired' ('active'). By screening off the passivity (of an excessive *jouissance*) they offer a pleasurable world. My point, again, is that such an element of screening off is intrinsic to being human; therefore the *vital* disavowal. Man necessarily filters his perceptions. Because of this 'filtering' of a *jouissance* that paralyzes us (in which we go under),

surplus enjoyment becomes the central issue. Our reality is motivated by an enjoyment that does not reside in the act, but in stagings, relations and positions, and fantasy thus works *in* reality as the organization of surplus enjoyment. Thus enjoyment is subjectivized into an enjoyment that 'marks' me, an enjoyment that I (unconsciously) seek or identify with. I have tried to show that nowadays this works in all the objects that determine different lifestyles. Analyzing this subjectivation of enjoyment widens the central issue of fantasy, subjectivation, from (ethical, normative) subjectivized language to subjectivized enjoyment that thrives in techno-culture. This 'physical' aspect also produces us as singularized subjects of desire.

By analyzing the subject of desire as being both motivated by the search for enjoyment (surplus enjoyment), and its excessive striving for a hallucinatory enjoyment that fully disavows the lack that characterizes the subject of desire, this chapter once more stresses the double bind of the subject. Our experience of reality is always substituted by enjoyment. But this enjoyment may actually 'take the place' (and this is where it gets pathological) of the relation the other, like when I chat not in order to communicate with someone else but solely to enjoy my self-image on the screen. The discourses that surround the production of techno-objects make use, of course, of this libidinal satisfaction that people attain from their 'ideal' image, propagating the objects as possible realizations of the consumer's desires - and this is where they become ideological. Ideologies thrive by 'selling' imaginary conceptions as reality itself, thereby capitalizing on man's libidinal investment in his own ideal image. Technological ideologies function in a techno-fetishistic manner, for instance, in the idea of cyberspace as a transcendent location that offers the fulfillment of desire. They portray this promise as realizable via the (maximum) consumption of objects – that is, via the (insatiable) circuit of the drive. Consciousness of our tricky position in media may enfeeble the bite of ideologies.

I use the notion of subjectivation to distinguish the empty subject of desire from the subject of the drive that is trapped in the game of constantly maintaining his state of enjoyment. Subjectivation thus is connected to an 'ethical' aspect (in the way Dreyfuss uses the Kierkegaardian ethical stage to analyze the Internet) wherein someone is not fully determined by the 'esthetical' pleasures of the interface. In a subjectivized relation the subject is not the slave of his search for imaginary pleasure, but is able to install pleasure - as an inevitable aspect of reality - in the project of his 'own' desire.

CHAPTER SEVEN. A LACANIAN THEORY OF REPRESENTATION

> "In short, according to th[e] second version (Sandy Stone, Sherry Turkle), cyberspace announces the end of the Cartesian cogito as the unique 'thinking substance'. Of course, from this second point of view, the pessimistic prophets of the psychotic 'end of Oedipus' in the universe of simulacra simply betray their inability to imagine an alternative to Oedipus". (Žižek, 1999b, 112)

Introduction

The focus on imagination requires that this chapter hinges on the mind-body dualism so frequently discussed in discourses concerning cyberspace. In this sense it serves as a kind of survey-chapter: issues addressed in previous chapters will now be discussed in the philosophical context of Cartesian subjectivity. I will discuss the notion of perspective in Renaissance art as an interesting and valuable way to extrapolate from the Cartesian 'thinking substance' to Lacan's 'desiring substance' and the technological point of view (the virtual personae of cyberspace). The deeply influential 'Cartesian subjectivity' will thus be confronted with Lacanian thought, of which I also try to give a general theoretical framework. In this manner I hope to construct an alternative to disembodied (modernist) rational subjectivity, without denying every form of 'rational' (Oedipal) subjectivation.

1. The Cartesian subject of representation

1.1. Descartes, causality and imagination

To formulate more precisely the questions concerning the modern subject of representation and its (dis)guise in cyberspace, I will examine one of its primary origins: the philosophy of René Descartes. Descartes, in his discussion of that peculiar question of the modern age, namely whether the outside world possesses reality or not, introduces a decisive distinction between two realities. One of these realities exists in the mind as an object of understanding and is composed of ideas, entities and objects, while the other reality composes the actual, extra-mental world. He calls the representative reality in the mind ‘objective’, a term he borrows from Scholastic philosophy which evidently has a meaning differing completely from our current understanding of objectivity. This *realitas objectiva* is the opposite of the *realitas actualis* which is the "formal reality", the actual extra-mental existence of things. Descartes' causal principle ('there must be at least as much reality in the cause as in the effect') implies that whatever is represented 'objectively' in an idea must also be present in its cause. Thus his *Meditations* establish that his idea of God must have its origin in God Himself. Since we can also have pictures in our minds of the most complex things, for example a highly intricate machine, the question then arises what the cause of this idea was. Did the person see it, is he a genius with a brilliant mind and imagination or, we might add to Descartes, is he mad? As Descartes mostly downplays imagination – in his most positive views he considers it 'perceptional help' for comprehension – the intricate machine will probably be an idea of the pure mind itself (and, finally, caused by God). "[T]he power of imagining which is in me, differing as it does from the power

of understanding, is not a necessary constituent of my own essence, that is of the essence of the mind" (Descartes, 1988, CSM 2, 50). For Descartes God is the supreme cause or archetype: everything found in an effect must be found in this supreme cause. His thought thus remains indebted to Platonic and Christian metaphysics. Without it, the crucial transition from self-knowledge to knowledge of God and the subsequent validation of science would be impossible (cf. Cottingham, 1993, 27). It is therefore a metaphysical substance that in the end causes scientific 'clear and distinct' ideas of the mind. In the relation between cause and effect there is no role for the imagination; mostly it just contaminates our knowledge, for it is a faculty that belongs to the *embodied* creature, not to the pure mental substance. In a letter to Mersenne of July 1641 Descartes writes: "One might perhaps think that the entire science which considers only sizes, shapes and movements would be most under the sway of imagination, but those who have studied it know that it rests not at all on the phantasms of our imagination, but only on the clear and distinct notions of the mind" (Descartes, in Cottingham, 1993, 85).[168]

Cartesian theory is often linked to new technologies - especially with regards to the metaphysical dualism of body and mind supposedly so sharp cyberspace. Here this will be done by looking at the role of imagination in both fields. First of all, digital technologies raise doubts about the causal relationship between model and representation (Roland Barthes names 'ça-a-été' the 'essence' of photography; the model causes the representation). This 'photographical' representation of reality as it is or has been is what the selection and compositing techniques of digital imaging technologies put under pressure. But one can also discern a second issue. Descartes claims: "All the intricacy which is contained in the idea merely objective – as in a picture – must be contained in its cause, *whatever its cause turns out to be* [my italics]" (Descartes, 1983, Part 1, art. 17). A scientific visualization in a Virtual Reality environment such as the CAVE, for instance, gives us an idea of what the inside of a molecule looks like, or how the collision of two galaxies occurs.[169] Could the digital imaging (or 'imagination') of new technologies thus also cause new objective ideas in our mind? Digital technologies disturb the 'univocal', causal relationship to reality. But do they not simultaneously replace this *mimetic* relationship (of imitation) with a *poetic* (creative) one, in which other causes than the 'true referent' may also generate valuable representations of reality?

Digital technologies question a presumption of Cartesian metaphysics that objective ideas in our mind are saved from (bodily) imagination. In the new sciences of complexity, as bio-molecular science, 'computerized imagination' is crucial as the

[168] On the one hand Freudian psychoanalysis can be put on a par with the Cartesian subject in that both question the *cause* of mental representations. On the other hand, the atheistic foundations of Freudian psychoanalysis make it acknowledge the possibility of *creatio ex nihilo* and attribute a significant role to imagination, while for Descartes it is absurd to think that something can come out of nothing.

[169] The projection-based virtual reality system of the 'new' CAVE is a ten square foot, high-resolution, 3D video and audio virtual display theatre, in which all perspectives are calculated from the point of view of the user who wears active stereo glasses and controls navigation with a wand. It is one of the latest generations of interfaces: a completely immersive environment enhanced by computation and large databases. Information on the CAVE is adopted from CAVERN (the CAVE Research Network), a community of industrial and research institutions equipped with CAVEs, ImmersaDesks, and high-performance computing resources all interconnected by high-speed networks for the purpose of supporting tele-immersive engineering and design, education and training, scientific visualization and computational steering. URL: http://www.evl.uic.edu/cavern/vrserver.html

referent (atoms) has never been seen yet by human beings: one is necessarily in the order of computer simulations. Here, science inevitably goes along with computerized imaging (imagining), which could go so far as to bring art and technology back together again (cf. De Mul, 2002, 125, 187). These developments question the 'Cartesian' distinction between ideas that are only ('formally') a certain modification of consciousness, and those that possess ('objectively') a genuine representational content. In its interference or disruption of the causal, indexical relation between signs and reality, digital technologies trip up the strict difference between fiction and reality, between the 'phantasms' of the visual, embodied being and the true representations of the abstract mind.

1.2. The mind screening reality: Cartesian perspectivism

The Cartesian 'mind' that seeks to represent reality mathematically supposes it can find an exact, scientific perspective. In order to grasp this crucial issue of perspective (one speaks of 'Cartesian perspectivism') it is useful to reach back to one of the founders of the theory and practice of linear perspective in painting, Leon Battista Alberti (1404 – 1472). In his work *De pictura* ('On painting', 1435) he describes the canvas as an open window onto history. The first step in the construction of this window (and its 'vanishing point') is:

> "First of all, on the surface on which I am going to paint, I draw a rectangle of whatever size I want, which I regard as an open window through which the subject to be painted is seen" (Alberti, as quoted in Edgerton, 1976, 42-3).

Alberti's famous metaphor conceives the canvas as a transparent window. The 'vanishing point' is the point on the horizon to which all the lines from the base of the picture (the 'orthogonals') flee (instead of the more recent term 'vanishing point' Alberti speaks of the 'center point' or 'point of flight'; see Romanyshyn, 1989, 39).[170] The counterpart of the 'vanishing point' is the so-called 'distance point': the point on this side of the window from which the scene is to be seen. Although I will not dwell on the exact construction of linear perspective, it results in the construction of an *eye* on this side of the window that could (in principle) see the world until the limit of infinity (the 'vanishing point' at the horizon).

Because linear perspective constructs a geometrical space for a subject of 'infinite' representation, some commentators have linked it to Descartes' philosophy. "Alberti's conception of the subject is already Cartesian in its reduction of the space of painting to dimensionless punctuality" (Bryson, 1983, 103). The result is the visual culture of modernity being dominated by 'Cartesian perspectivism'.

> "[W]hat is normally claimed to be the dominant, even totally hegemonic, visual model of the modern era, that which we can identify with Renaissance notions of perspective in the visual arts and Cartesian ideas of subjective rationality in philosophy. For convenience, it can be called Cartesian perspectivism" (Jay, 1988, 4).

[170] For a good outline of the technique of linear perspective, see: Romanyshyn, 1989, 35–57.

Descartes' philosophy broke with a dominant concept of vision: vision as a resemblance of exterior reality by copying the objects' images into the eye. Descartes' physical conception of light as lines overcame many of the problems of this older paradigm of *resemblance*, for example explain the 'bending' of light rays by lenses. Vision, for Descartes, is the *representation* in the mind by means of the light that objects 'emit', which goes via the senses and nerves to the brain. "Judgment is then the essential aspect of Descartes' system of perception in which the sensory information perceived is nothing more than a series of representations for the mind to categorize … In the Cartesian system of vision, representation replaced resemblance. From this point on, the modern picturing of the world as representation became possible" (Mirzoeff, 1999, 43-4). With mathematics at the forefront, the world became measurable and calculable. The geometrical mapping of space arose with this 'Cartesian perspectivism'. A two dimensional map can *represent* three-dimensional space: Alberti's metaphor.

The canvas on which the close observer paints the world, the window or veil between subject and object, is like a mathematical grid. The world appears as consisting of analyzable and fragmented parts. "The veil is a grid which arranges the world into parallel squares and in this respect the veil through which the modern self as spectator sees the world is a mathematical one" (Romanyshyn, 1989, 77). This window of representation strictly separates the subject as a spectator on this side of the screen from the world as an object of vision, a spectacle. The world beyond the screen becomes primarily a matter of light and information, of data (cf. Romanyshyn, 1989, 54-56). The human eye, human vision, measures the world's horizon; as such the window is the condition of the scientific attitude. Descartes' *Cogito* as a subject of pure thought and vision, clear consciousness, is on this side of the window. As a *point* (of perspective) it differs radically from the world of bodily extensions at the other side of the window. It distrusts that world of bodily sensations and doubts whether the world really is as it appears via the senses. As such it is similar to the Freudian self that also distrusts the way the world appears (at first sight): "Both are born on this side of the window" (Romanyshyn, 1989, 78).

Cyberspace can be seen as a continuation of this modern raster grid. 'Pixel-pictures' digitally encode the images by subdividing the picture plane into a Cartesian grid of cells (cf. Mitchell, 1992, 5). And the advent of the graphical user interface transforms the computer into a medium opening up perspectival and navigational spaces. Cyberspace could be interpreted as the most advanced technological form of Cartesian subjectivity. Supposedly it affords the 'mind' or virtual subject an almost infinite vision on, and mobility through, the world of data entered via the computer interfaces. I have already brought up several times the question whether the computer interfaces transporting us into cyberspace are a culmination of the tradition of representation, or rather its nullification. Through the discussion of Cartesian perspectivism above I hope to have created an appropriate context for a Lacanian account of the Cartesian subject of representation. Such an account is in my opinion most useful for understanding subjectivity in the age of information.

2. Lacan: fantasy as the 'real stuff' of the Cartesian subject

2.1. Lacan beyond Cartesian dualism: Cogito and libido

Alberti's window of linear perspective is similar to Lacan's window of fantasy.[171] Both cover the space of projective geometry: the subject projects the real on the screen. This *projected real* – which we call *reality* – therefore has the structure of a projection-screen.[172] Sense of reality contains a projective element (the pleasure principle 'inhabits' the reality principle). The distance or space between the desiring subject and the real object is a necessary condition for the appearance of reality (in strict psychoanalytical terms this is the 'space' or 'gap' of alienation and separation, cf. chapter one, part 3). Distance motivates the emergence of represented reality (cf. S.11, 57). We don't see anything that is not at a distance, in space.[173]

Lacan's discussion of the geometric laws of perspective lead to the conclusion that the Cartesian subject is a geometric point, a point of perspective (S.11, 86). The Cartesian subject is as the symbolic subject a point without substance, a mere point of view: the 'distant point'. Lacan affirms this Cartesian subject of representation as being similar to the symbolic subject of desire that psychoanalysis studies.[174] The Lacanian subject is nevertheless not a disembodied spectator at this side of the screen. It is not without substance, and does not have an infinite or 'godlike' vision. Lacan's 'logic of fantasy' (formalized in the matheme S<>a) theorizes the connection of the symbolic subject to something that is not of its order, outside (symbolic) signification: the real (of enjoyment). Symbolical interpretation cannot entirely construct the 'real truth'. There's also a 'libidinal' element in it (embodied communication: see chapter four). The cell phone as an object of symbolical interaction is also an object of enjoyment: it produces a (symbolical) self-image that we love, we love to talk etc. As an object of fantasy it gives form to enjoyment.[175]

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[171] This is the thesis Gérard Wajeman developed in his 2000-2001 research seminar at the University Paris Saint Dénis, "La naissance du regard", from which the present paragraphs borrow some ideas.

[172] Christian Metz describes the identification with the camera in cinema, which leads to a double movement of vision: "All vision consists of a double movement: projective (the 'sweeping' searchlight) and introjective: consciousness as a sensitive recording surface (as a screen). I have the impression at once that, to use a common expression, I am 'casting' my eyes on things, and that the latter, thus illuminated, come to be deposited within me (we then declare that it is these things that have been 'projected', on my retina, say) (Metz, 1982, 50).

[173] Gilbert Durand claims in the chapter on 'The Transcendental Fantastic' ['Space, The *A Priori* Form of the Fantastic'] of his authorative *The Anthropological Structures of the Imaginary*, against Kant that space, and not time, is the primary form of imagination: "Since, for us, duration is not the immediate datum of ontological substance, and time is not the *a priori* condition of phenomena – since symbols are not of its domain – *space* remains as the general "sensorium" of the fantastic function. Fabulation, the inexhaustible source "of ideas and images", is, as even Bergson admits, symbolized by space, "the symbol of the creative tendency of the human intelligence". Space may be a subjective construct and an illusion, but our intuition can produce nothing but images, and they are in space, which is the locus of our imagination. For this reason the human imagination is shaped by the development of sight, then of hearing and language, all of them means of learning and assimilation "at a distance"" (Durand, 1995, 391).

[174] Lacan's relation to the Cartesian *Cogito* is nevertheless complex and therefore not univocal. On the one hand he considers it to be the consciousness that falsely thinks itself as transparent (cf. S.2, 6-7). On the other hand, the Cartesian subject is the 'subject of science', without intuitive but only rational access to knowledge (E. 831), that is as such a 'non-intuitive' subject of 'rational law' also the subject of psychoanalysis.

[175] As Miller concludes regarding Lacan's final teachings – see chapter one: signification is enjoyed, or enjoyment is signification: *sens-joui*.

The libidinal 'body of enjoyment' (or 'the body as enjoyment') directs consciousness; it fouls (and fools) the Cartesian screen of clear representation. The screen interfaces the symbolical and the libidinal: representation is affected. The Internet perfectly illustrates this symbolical-libidinal picturing of the world, as its representations are obviously not detached from the enjoyment it offers (seeing, surfing, playing, exploring). The Lacanian subject of the interface is beyond the mind-body dualism. "To the distant spectator self behind the window of his or her consciousness, a consciousness detached from the world and the body, psychoanalysis opposes its notion of the unconscious, of a self that is already borne by its embodied desires into the world, a self in intimate proximity with things … It not only restores the self to the world, but it does so in a concrete way through the intermediary of things, through the way in which things of the world are already tied to the body through the bonds of libidinal desire" (Romanyshyn, 1989, 205).

I will take the opportunity to explore the Lacanian subject at greater depth as a disembodied point of view and an embodied object: its form and its content.

2.2. The unconscious (virtual) subject as a partial perspective upon the world

Lacan takes the Cartesian subject as the model of the (virtual) subject of language.

> "The unconscious is the sum of the effects of speech on a subject, at the level at which the subject constitutes himself out of the effects of the signifier. This makes it clear that, in the term subject – this is why I referred back to its origin – I am not designating the living substratum needed by this phenomenon of the subject, nor any sort of substance, nor any being possessing knowledge in his pathos, his suffering, whether primal or secondary, nor even some incarnated logos, but the Cartesian subject, who appears at the moment when doubt is recognized as certainty" (S.11, 126).

Language cuts the direct tie with our 'substance' (body, soul, feelings …) and simultaneously introduces a self-identity at the level of the word. Identity is virtual because it exists at the level of representation, and not 'in the real' (cf. chapter two). And since we cannot pronounce our ultimate conclusions about ourselves, we are never fully known to ourselves.

Unlike Freud, Lacan introduces the notion of an *unconscious subject* in psychoanalytic theory. This subject can be articulated in media-discourses that, for instance, position someone as a 'star'. We *assume the presence of* something that is not there 'in the real'. The 'star' has a virtual status; and this example at once sheds light on the metaphorical status of being in the world of language. It is impossible to say exactly what it means to be a 'star'. This is the mechanism called primal repression by Lacan: what I am is impossible to determine fully ('the 'I' is primordially repressed'). We must presuppose a subject of enunciation (the pure subject of the signifier, the 'I') as the (hollow) self-identity that accompanies our thinking and our speech. For without it there would be no 'person' to which the thoughts and enunciations belong. When we try to determine it, it fades away: doubt remains ineluctable. Lacan makes the "*I think* a mere point of fading" (S.11, 224).

The (virtual, unconscious) subject of language is not a substance but a *form*. Lacan's development of the theory of the Cartesian subject leads up to this conclusion. There is a unity in our self-experience, yet this unity is purely formal. The 'I' with

which I refer to myself does not correspond with some entity in the empirical world. As such Lacan's development of the Cartesian subject seems to have passed via Kant's theory of the transcendental subject as a formal unity of apperception.[176] In the context of Lacan's difficult notion of an unconscious subject only 'recognizable through its thoughts', it is interesting to note that Kant also describes the transcendental I as an It ('Es') which thinks. He speaks of an

> "empty representation I, of which one cannot say that it is a concept, but a mere consciousness that accompanies every concept. Through this I, or He, or It (the thing), which thinks, nothing further is represented than a transcendental subject of thoughts = *x*, which is recognized only through the thoughts that are its predicates, and about which, in abstraction, we can never have even the least concept; because of which we therefore turn in a constant circle, since we must always already avail ourselves of the representation of it at all times in order to judge anything about it" (CPR, A 346).

And Roger Scruton observes on Kant's 'unity of consciousness':

> "[t]he 'I' as thereby described is not part of the world but *a perspective upon it* (a way things seem)" [my italics, A.N.] (Scruton, 1982, 56).

The *Cogito* of Lacanian theory is a perspective upon the world. It functions in a manner similar to the human-computer interface. Applications software or end user programs interpret digital data merely as information of one specific sort (Simons, 2002, 95): a word processing program doesn't allow the user to read or process images. So the program determines the *form* in which the data appear as information (namely as text), while being completely indifferent towards the *content* of the text. The Lacanian *Cogito* necessarily gives a specific form to the world of information on the other side of the screen. It is not the all-seeing eye on this side of the screen, but it subjectifies (embodies) the supposedly neutral information. Just as the needs and desires of the user determine the specific way in which human-computer interfaces make the data available, the vision of the Lacanian *Cogito* (the window upon reality) is already colored by fantasy.

Vision is a *partial* perspective. Both the Lacanian *Cogito* and computer interfaces show this partiality, in the two-fold meaning of the word. On the one hand, 'data' are interpreted from only *one* (virtual) *perspective*. On the other, this perspective is *biased*, *one-sided*, because it excludes other perspectives, and limits the interpretation and usability of the 'data' for the virtual subject. The computer interface is not a neutral and transparent screen (a conduit, or counter), but above all the face of the data that lie

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[176] Lacan's ideas on the virtuality of 'mind' match with a way of thinking about the 'virtualization of reality' that finds an important starting point in the work of Kant. For Kant the 'virtual soul' shapes the actual existence of man in the physical world: "The move from the virtual as marker of potentiality in one order to marker of the potential between or among orders occurs in Kant's 'On the Form and Principles of the Sensible and the Intelligible Worlds'. Kant, in attempting to understand the nature of the soul, answers the problem of the incorporate soul existing in the corporate world by designating the soul as having a "a presence in the world [that] is not spatial, but virtual." Thus the virtual begins to mark that which exists in one order and can only be actualized in another order" (Alan Goodrich, 'Theories of Media: Virtuality', http://chicagoschoolmediatheory.net/glossary2004/virtuality.htm)

behind it, just as the 'imago' is the face that determines how things appear to a desiring subject.

2.3. Fantasy as the stuff of the point of view

The virtual subject is a (geometric) point of perspective. Our family name, for instance, gives us a certain 'perspectival position' in a 'world of texts' ('symbolical element' of the *Cogito*). Similarly, we can be a virtual persona in a textual community on the Internet (I can describe myself as …). For this 'textual persona' (point of view: pov) to have some concrete significance and meaning for the person represented, there must be some affective or libidinal aspect to it, which makes it a representation *of me*, or relevant to me ('imaginary element' of the *Cogito*). This is, according to Lacan, the work of fantasy. The example of 'virtual sex' illustrates this. Fantasies necessarily 'supplement' the exchange of signs on the computer screen in order to generate a 'lively significance' (and this may also translate Lacan's *sens-joui*, or enjoyed significance). These fantasies may be materialized through the use of avatars, or in the exchange of digital photographs, which are concrete forms of the mental imagery from which the libidinal subject extracts satisfaction. Fantasy necessarily supports linguistic communication. Without it there is merely a meaningless, 'robotic' exchange of signs. In the case of (the original) identification with my family name (that turns me into an 'unconscious' linguistic subject), I also identify myself with the 'imagery' that surrounds this name. That is, with the way in which I and others (or to be more precise, the way in which those two intermingle: 'I is another') see that family; as 'materialized' in the family arms, its reputation, its style, its wealth, the gossip that surrounds it etc: its whole fantasmatic ecology.

A linguistic subject is subjected to the laws of language. In a very concrete way this means that one is a subject of the legal system, of the system of law. Also here fantasies decide whether one recognizes oneself as subject to certain laws or not. The fantasy of an Islamic terrorist will not sustain the subjectivation of the laws of a liberal democratic society. And someone whose fantasies cause a strong identification with his virtual persona in cyberspace may find many difficulties in sustaining his 'normal persona' in 'real life'. Fantasies give so much 'substance' to the machinery of the exchange of signs that Lacan concludes with regard to the (unconscious) Cartesian subject of representation:

> "Let us say … that the [f]antasy is really the 'stuff' of the 'I' that is originally repressed" (Ec., 314).

Concurrent (or synchronous) to a detached and neutral *subject* of representation, we are an *object* of representation. The Lacanian subject exists simultaneously in the space of representation and in physical space (and is therefore still in the representation tradition, cf. Manovich, chapter two: § 4.1.) It cannot detach itself completely of physical space, as the interaction with the other turns it into an object in physical, embodied reality. We are such an object because we (fantasmatically) identify ourselves with the way in which the other sees us. This is, at least, Lacan's thesis which may illuminate (cyber) visual culture. Particularly cyber-sex shows this functioning of psychical support or assistance, in that the subject of detached online communication (libidinally) identifies himself with the image that the other has of him – or that is

constructed in the communication with the other. The self constructs fantasy in relation to the other. This brings us to a general exposition on Lacan's theory of vision.

2.4. Lacan's logic of visual representation

In 1637 Descartes published, along with his *Discourse on Method,* his treatise *Optics*, which was to illustrate his new scientific method. It aimed to provide a geometry of vision, in which the study of light would account for the way we perceive objects. Light, with its refractions and reflections, passes immediately (and this claim of instantaneous transmission is pivotal to Descartes study) from the object via the lenses of the eye to the retina: "the light in the bodies we call luminous is nothing other than a certain movement, or very rapid and lively action, which passes to our eyes through the medium of the air and other transparent bodies, just as the movement or resistance of the bodies encountered by a blind man passes to his hand by means of a stick" (Descartes, 1988, CSM 1, 153). For Descartes the full explanation of our perception of light will involve more than physiology, for "it is the soul which sees, not the eye, and it does not see directly, but only by means of the brain" (CSM 1, 172, cf. Cottingham, 1993, 110). Nevertheless, it is light that is the 'direct touch' between the object and subject of vision.

For Lacan, this 'directness' between object and subject is not so evident at all. It is, to the contrary, strongly mediated, and here fantasy plays a crucial role. In his discussion of the Cartesian geometric eye Lacan observes: “What is at issue in geometral perspective is simply the mapping of space, not sight” (S.11, 86). Lacan develops a distinction between the physiological relation (the image as a matter of light) and the 'psychological' relation (the screen as a matter of desire). We are, so to speak, at two places at the same time (which testifies once more of Lacan's roots in the tradition of representation, to which he gives an interesting turn, as the real is 'impossible'). We are at the place from which we look, *and* at the place from which we desire to see: where we identify our vision in fantasy (the ‘cinematographic identification’). In psychical reality those two positions go hand in hand. In cinema, for instance, both the eye and the identification with the camera create the experience of reality. The same goes for the psychical experience of being involved in a virtual world on the Internet. I not only look (in the first person perspective: through the eyes of my avatar, or in the third person perspective: upon my avatar and its direct surroundings), but I 'know' at the same time that my virtual image (my avatar, its behavior and expressions) is being looked at by the other participants in the virtual world. It is this 'interactivity' that causes the genuine experience of reality in this world. Without it, alone, this virtual presence would stop interesting me.

Vision is not neutral and cannot proclaim an objective point of view, as in ‘Cartesian perspectivism’. The point of view of linear perspective does not cover the whole process of sight. We not only look, but are also seen. “*The* object a *in the field of the visible is the gaze*” (S.11, 105). In Lacan's logic of representation we are both a subject and an object of vision. In the terminology of linear perspective: we are both at the distance point (the eye) and at the vanishing point (the point of alterity, where our vision reaches its limit: the point of the other, what Lacan calls the gaze of the Other). For we try to ‘imagine’ what we are in the eyes of the other: that is what fantasy does. Norman Bryson analyzes this logic via a painting of Raphael, *Marriage of the Virgin*, in which a group of people is depicted with the technique of linear perspective as standing before a temple whose blank opening at the center manifests the vanishing point from

which we seem to be looked at. “[T]he single vanishing point marks the installation within the painting of a principle of radical alterity, since its gaze returns that of the viewer as its own object: something is looking at my looking: a gaze whose position I can never occupy, and whose vista I can imagine only by reversing my own, by inverting the perspective before me, and by imagining my own gaze as the new, palindromic point of disappearance on the horizon” (Bryson, 1983, 106).

Besides reflection, the image on the screen also involves a (perspectival) positioning towards a 'real' (truth). Lacan refers to a popular alternative to the use of perspective, namely anamorphosis. In this system of representation, standing in front of the picture (at the distance point) does not put the spectator ‘in line’ with the vanishing point. He must put his eyes level with the picture and go to one side or the other in order to see what the image shows. “Anamorphosis reveals that perspective is simply a visual convention and one that, when pushed to extremes, generates unnatural results” (Mirzoeff, 1999, 48-9). Thus Hans Holbein’s *The Ambassadors* (1519) depicts along with the two powerful figures at court a curious spiral shape that is revealed to be a skull when seen from the correct viewpoint. It hints that the ambassadors too will die and face judgment, despite their worldly power. In Lacanian theory the anamorphosis illustrates the impossibility to look truth straight in the face (to see things 'as they are'). The image protects us from the truth behind it (that is to say every image is a substitute for the truth of castration).

As objects of vision the issue is to find out what kind of object we are in the eyes of the other (that we identify with). Christians see themselves, from a godlike or eternal point of view, as nothing but dust. This identification with his 'true picture' (as seen by God) 'breaks' his imaginary self-image. Likewise, online others make my presence in imaginary space more than merely an imaginary illusion of my ego. When we do not identify at all with such virtual perspectives (of others) on ourselves, we are 'outside reality' (that is for Lacan basically intersubjective): in a pathological position.[177] The truth of fantasy lies not in the Self ('is my avatar a true picture of myself'), but in relation to the Other that breaks up my self-image and, crucial for Lacan's notion of truth, must continue to do so: 'I never look at myself from the place from which you see me' (cf. S.11, 103).

One can conclude Lacan's discussion with 'Cartesian perspectivism' in this manner. Descartes posits a transparent subject able to represent reality objectively in a geometrical space (both Heidegger and Lacan diagnose this as a subject that makes the world into a 'display'). Lacan posits the subversive subject of desire. Although it desires conclusion, which is (libidinal, symbolical) death, it can and must never converge with the representations it makes. Interactivity with the other must avoid the growing foggy of perspective; must avoid the screen from becoming a mere mirror. I will give a final discussion of this issue by means of the 'schemes' that articulate the observing subject *in-the-world*.

[177] The psychopath is an obvious example of someone who does not identify with the way he is being seen by others. This being without 'conscience' may manifest itself in cyberspace by 'raping' someone else's avatar.

3. Fantasy as a scheme

3.1. Kant: schematism as a 'hidden art in the depths of the human soul'

In 'The unconscious' (1915) Freud refers to Kant in order to emphasize the aspect of subjective constitution in our experience of reality. “Kant warned us not to overlook the fact that our perceptions are subjectively conditioned and must not be regarded as identical with what is perceived” (*S.E.* 14, 171; cf. Meissner, 2000, 1119). Kant considers the spatio-temporal world as a setting (‘Setzung’) that we as subjects of knowledge continuously execute. In order to be apprehensible, the manifold empirical sensations (the *matter* of our knowledge) must necessarily be put into the *form* of space and time. No appearances without the horizon of the time-space dimension. This *synthesizing* of sensations into appearances is an activity of the transcendental *imagination*. I already mentioned this in the third chapter, but will now give a more meticulous description, and examine imagination in its close relation with the *understanding* that connects the appearances into a coherent, knowable object.

We must c*onnect* or combine appearances in order to make some sense of them. This, Kant says, is an activity of the understanding. Thus I see not merely several limbs and parts of the body, but I understand them as constituting one and the same body. The understanding relates the appearances to an object. For Kant coherent perception is impossible without concepts of understanding, or categories. A concept is an idea (in Greek: ‘phantasia’, ‘phantasma’) of the understanding through which we understand phenomena as a meaningful unity. In our conception of things we combine the elements of perception according to certain rules or laws. When we succeed in combining appearances by means of concepts we can understand the world. So in case of the aforementioned example of the body, it is our concept of the body that organizes our perception and awareness of it.[178]

Kant distinguishes three different levels of (formation or relation to) the 'object'. First of all, *sensations* relate us to the Thing ('Ding': latter something or thinghood; for there must be something rather than nothing in order for sensations to occur). Secondly, the transcendental imagination puts those sensations in the forms of space and time and thus makes the Thing into an object of experience ('Gegenstand'), or an *appearance*. Thirdly, 'innate' concepts or categories of the understanding make those appearances into an object for knowledge ('Objekt'): "Appearances, so far as they are thought as objects according to the unity of the categories, are called *phaenomena*" (CPR, A 249).

The unifying qualities of the categories turn the diversity of appearances into a coherent object of knowledge. So, although I might perceive many things as objects – 'Gegenstande' – in which I can throw away my trash, I (must) understand that only some

[178] There is the obvious reference to the concept of the 'body image' in the work of Maurice Merleau-Ponty. Although I do not use and go into this reference, I do make some comments on (transcendental) psychology. The English literature on the psychology of the body has a diversity of terms to express this idea on 'concepts': body image, body scheme, body percept, corporal awareness of the body, postural model. The following distinction is practical. Body schemes are the sensorial and motorial schemes of organization that are constructed during the development of the body. They allow us to act (such as simultaneously driving and shifting gear in a busy traffic, playing with a ball and singing at the same time …) without a conscious awareness of how we are actually doing that. The body percept, or body image, is our (subjective) sight on our own body and its possibilities. So if someone perceives himself as clumsy, it will be hard to explain how easy it is to drive and shift gear at the same time. In the (French) context of (transcendental) psychology, we could say that Lacan, with his notions of the ideal (body) ego and the ego-ideal, focuses on the imaginary and symbolical aspects of the body image.

of them are a dustbin. The question is how to apply a concept correctly to an empirical appearance. For Kant this appliance occurs according to certain schemes that mediate empirical reality and the intellectual concept. A correct use of concepts requires some sort of 'intermediaries' that connect ('interface') empirical reality and concepts, the sensible and the intellectual domain. Kant calls them schemes.[179] But why would the categories be applicable to the material of perception in the first place? Because Kant holds that the understanding does not take its fundamental concepts *from* empirical reality, but *puts them in it*. The spatio-temporal appearances therefore *already contain the schemes*: in the constitution of an understandable world of appearances the understanding played a constructive role. Imagination and the understanding are homologous in the construction of what we experience as a coherent reality.

The scheme is a rule according to which the imagination synthesizes intuitions ('Anschauungen'). The most general rule is that of the sequence. The form of the inner intuition is time: we always experience things in time. Therefore it may not surprise us that time is the primary scheme: "Time is the *a priori* formal condition of all appearances in general" (CPR A 34). Space is the form of all outer intuitions: when we perceive something outside us, it is in space. For Kant however, space already belongs to the inner state. Whether a representation has an outer thing as its object or not, it is basically a representation for an inner intuition, that has time as its form. The schemata that structure and organize our coherent understanding of things "are therefore nothing but *a priori* time-determinations in accordance with rules" (CPR A 145).

In the *Critique of Pure Reason* the scheme of causality is the most important concept of the understanding. It illustrates that schemes are about a 'logical' determination of time.[180] I will try to illustrate this. Each time that I type on my keyboard (A) and see sentences appear on the screen (B), I come to connect A and B as cause and effect. My understanding puts the connection of causality into this material, or it includes it under the concept of causality. As this concept is not derived from empirical perception, Kant comes to see this concept as one of the twelve categories of the understanding, that is to say the fundamental concepts that have their origin purely, a priori, in the understanding itself. All other concepts originate in the application of those categories to the appearances. So when I think that typing causes the appearance of sentences, the concept of writing results. The fact that B occurs each time after A (which is not exactly the same as B because of A) is what Kant calls the *scheme* of the concept causality: it leads to the conceptual determination of the appearances.[181] As the imagination synthesizes the intuitions in accordance with schemes, imagination is pivotal in making reality into an object for knowledge (as it is for Lacan in making it into an object of desire).

Kant gives the example of the concept of a dog – it makes the functioning of schemes more specific. "The concept of a dog signifies a rule in accordance with which my imagination can specify the shape of a four-footed animal in general, without being restricted to any single particular shape that experience offers me or any possible image

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[179] Kant expounds this theory in the first chapter of 'The Transcendental Doctrine of the Power of Judgement': 'On the schematism of the pure concepts of the understanding' (*Critique of Pure Reason* A 137-147).

[180] Lacan's 'logic of fantasy' parallels this 'logical' determination of time: the subject finds each time, repeatedly, the same thing (encounters the same type of partner, acts the same way …).

[181] Similarly: encountering, over and over again, the wrong type of partner can lead to the 'concept' of hysteria (a desire that wants to remain unsatisfied). Or: continuously surfing the Internet to seek 'that' what one cannot find, leads to the 'concept' of obsessional neurosis.

that I can exhibit *in concreto*. This schematism of our understanding with regards to appearances and their mere form is a hidden art in the depths of the human soul" (CPR A 141). The imagination provides rules or schemes for 'drawing' the figure of a concept. Those schemes aim at "the unity in the determination of sensibility" (CPR A 140). They 'imagine' the intellectual concept in 'drawing' its general rules or figures in the manifold of appearances. But, Kant stresses, it is not similar to a fixed image (CPR A 140-142). The "image is a product of the empirical faculty of productive imagination, the schema of sensible concepts (such as figures in space) is a product and as it were a monogram of pure *a priori* imagination, through which and in accordance with which the images first become possible" (CPR A 141-142).

These schemes are pivotal for the formation of the object of knowledge. With them we recognize images as a certain object (or: recognize a concept in certain images).[182] But, as the object-in-itself ('Ding an sich') can never be subsumed (interpreted, visualized …) under a certain concept (that is to say the concept does not have a final, perfect form) those conditions of linking sensibility and the intellectual must not become an imaginary hypostasis: an image that would (perfectly) unite those two domains.[183] Kant also rejects the Platonic doctrine of a perfect mediation: there is no ideal image of a dog.

3.2. Freud on fantasy as a scheme

For Freud the (unconscious) core of fantasies conditions reality. This *schematic structure* of original fantasies organizes the elements of our perception. Fantasy doesn't merely follow sense-impression, it actually structures it. It is in-between real sense perceptions and their conscious understanding. In this manner it resembles the Kantian *a priori* condition of experience. A more current and neurobiological terminology would speak of those schemes as 'in our genes'. They are the 'blueprint' of our psychological self, determining our desires. In 'From the history of an infantile neurosis' (1918) Freud states:

> "[T]he phylogentically inherited schemata, which, like the categories of philosophy, are concerned with the business of 'placing' the impressions derived from actual experience. I am inclined to take the view that they are precipitates from the history of human civilization. The Oedipus complex, which comprises a child's relation to his parents, is one of them – is, in fact, the best known member of the class. Wherever experiences fail to fit in with the hereditary schema, they become remodeled in the imagination … We are often able to see the schema triumphing over the experience of the individual" (*S.E.* 17, 119).

Fantasy is both a trans-individual, general form of subjectivity, and an instance of the individual. For one thing, fantasy's original structure (the 'hereditary schema') makes 'normal' experience contain a conditional element of structuring – the prohibition of incest, for instance, makes love relations within kinship a psychic impossibility. For

[182] One may question the universality of the Kantian schemes by showing a possible socio-cultural factor in it. For, to use a previous example, my understanding of an object being a dustbin may be caused by the (police) rule or law (for the maintenance of public order) that punishes me when I throw my trash in an object that resembles a dustbin, but *is* not one.

[183] In previous examples, relating Kantian and Lacanian thought on the scheme, such a 'perfect unification' of object and image is a pathological fantasmatic captivation.

another, fantasy functions as a compensation for the limitations that structured reality imposes upon us: we 'remodel experiences in the imagination' when they do not fit within schematized reality. So when I do fall in love with my niece, fantasy remodels those affects in order to escape its impossibility in reality.

We may nevertheless only assume such a (transcendental) fantasmatic scheme determining each and everyone's life history when the interpretation of someone's individual biography has reached its limits, as Freud concludes in his text on the Wolf Man. 'Philosophical' thoughts on transcendental structures are for Freud

> "only admissible when psycho-analysis strictly observes the correct order of precedence, and, after forcing its way through the strata of what has been acquired by the individual, comes at last upon traces of what has been inherited" (*S.E.* 17, 121).

Thus Freud formulates his controversial 'phylogenetic' hypothesis of the origin of fantasies. Not only does he believe in the development of the libido (with all its possible vicissitudes) in individual life. As a confirmed evolutionist Freud also thinks that the evolution of the human species lays down some specifically human structures in our psychic constitution. Via Darwin, Lamarck (who develops the idea of the inheritance of acquired character-traits) and Haeckel (the development of an individual organism goes through the same stages as the species as a whole) he arrives at his great hypothesis of the phylogenetic origin of the Oedipus complex, as described in *Totem and Taboo* (cf. Perron, 2001, 590). The founding experiences of each individual life history actually took place at the origin of mankind. In man's prehistory the sons killed the father of the 'primitive horde', who kept all the females for himself. The guilt and remorse that followed this primeval murder then became a universal aspect of all human beings. The Oedipus complex repeats this phylogenetic origin that provides the matrix for our desires. The origin of each of us as a subject of desire is at the same time the origin of what it means to be a human being.

3.3. Lacan: fantasy as the scheme of desire

Bernard Baas' works (1992, 1998) consider the relation between Lacanian psychoanalysis and (Kantian) phenomenology. His conclusions delineate the fantasy-object as the Kantian intermediary element between the understanding (the intellectual 'empty form') and the sensations (the matter of knowledge). That is, the *object a* is the scheme of desire (Baas, 1998, 54-5). Also Žižek considers fantasy (or the fantasy-object) the scheme of desire. "[F]antasy does not simply realize a desire in a hallucinatory way; rather its function is similar to that of Kantian 'transcendental schematism': a fantasy constitutes our desire, provides its co-ordinates; that is, literally 'teaches us how to desire' … it provides a 'schema' according to which certain positive objects in reality can function as objects of desire" (Žižek, 1997, 7). Freud's crucial text on fantasy, 'A Child is Being Beaten' illustrates this 'schematism of pure desire' in Lacan's work.

In this text Freud analyzes the transformations – or avatars (S.5, 237) – of a fantasy he regularly encounters in his therapeutic work, which comes down to the expression: 'A child is being beaten'. His patients use this fantasy in its conscious form (that is for Freud its 'third avatar') to generate libidinal pleasure: it often ends in acts of auto-erotic satisfaction. Freud discovers yet two previous forms of this (perverse)

fantasy. The first form of this fantasy of chastisement, that probably once was conscious, comes down to the sentence: 'the father beats a child'. It expresses, according to Freud, the child's desire to be loved by the father; for the father beats the other child, hence does not love her. The second form of the fantasy is according to Freud so guilt-ridden that his patients cannot consciously remember it. Therefore analysis must reconstruct it, and then the fantasy reads: 'I'm being beaten by the father'. It expresses for Freud an incestuous desire for the father, that the extreme feelings of guilt completely reverse, as a form of punishment, into its opposite (loving turns into hating/beating). The child, or the adult it becomes, uses the fantasy in the third form in such a way that its central figures are no longer identifiable. The fantasy apparently does not revolve at all around the child and its father, or around figures that are directly associated to them (siblings, teachers etc). Therefore: '*a* child is being beaten'.

Lacan's analysis of this text considers the third form of this fantasy as nothing more then a *general scheme* (S.5, 238). This final form of the fantasy gives a specific (manageable, 'coherent', subjectivized, schematic) memorization or fixation of an impossible desire, which retains for the subject the faculty to *constitute the privileged image* in which its genital satisfactions find support (S.5, 239). Thus this fantasy-subject of chastisement finds satisfaction in ‘scenarios’ in which ‘someone is being beaten’. The repetition (replay, repeated performance) of some sort of 'beating' functions as a scheme, which provides the fantasy-subject the co-ordinates for 'drawing' the (empirical) object that can satisfy its desire. The scheme of fantasy allows the formal structure of desire to find an object in the order of sensibility. It resembles Kant's remark on mediation: "This mediating representation must be pure (without anything empirical) and yet intellectual on the one hand and sensible on the other. Such a representation is the transcendental schema" (CPR A 138). Fantasy as a scheme stripped of empirical reference, nevertheless determines the appearance of empirical objects of desire: as a formal structure or scenario. In 'designing' the empirical object, it simultaneously voices or phrases the fundamental 'concept' – in its psychoanalytical guise this is the fundamental fantasy.[184]

The *psychological* aspect of Kant's analysis of schematism (which also has epistemological, logical and methodological aspects) shows schematism as 'the hidden art in the depths of the human soul'. In psychoanalysis this 'hidden art' works in the pivotal phenomenon of repetition. John Suler points out the functioning of unconscious causality in online relations in which people constantly search for the same kind of partners, and thus constantly make the online other appear within the same window of perception. In chapter five I discussed the real as the cause of repetition, or 'the real cause of repetition'. The issue at hand shows that the real (of psychical reality) is (as good as) inseparable from the fundamental fantasy. We may even quote Kant's sayings on the scheme of causality to illuminate the (real) unconscious cause (the unconscious fantasy) ruling the object-choice: "The schema of the cause and of causality of a thing in general is the real upon which, whenever it is posited, something else always follows. It therefore consists in the succession of the manifold insofar as it is *subjected* to a rule" (CPR A 144; my italics).

Like the subject of knowledge needs the scheme and the imagination as conditions for knowing an object, the desiring subject only desires an object when it

[184] The unconscious, repressed, fundamental fantasy of the fantasy ‘A child is being beaten’ turned out to be the masochistic and incestuous fantasy of the girl - for this fantasy concerns primarily, although not only, girls - ‘being beaten by the father’. Such fundamental fantasies are a construction of analysis.

shows a ‘scheme’ (a 'trait', the mysterious *x* that makes the other attractive or repulsive) put in reality by the subject itself. It does not follow, however, that the subject of desire fully constructs its object – like in some sort of psychotic hallucination. Rather that its ‘material object’ only appears to be desirable when it fits within the subject’s fantasmatic scheme. Or when it fits within the subject's fantasmatic window, of which the computer interface is a new avatar as it also makes the unknown *x* appear in a certain way.

Conclusion

> "The problem is that notions such as the cyborg and the persona are not yet fully articulated so as to offer an complete alternative to the notion of the individual. However, this does not mean rejecting the model of the postmodern persona or the pov. Instead it is merely an indicator that we are still in the crisis period in which alternatives are incomplete. We are in the middle of an ethical and political 'working-out' of the possibilities and potential of new modes of subjectivation, without closure" (Shields, 1997).

This chapter focuses on the role of imagination in Cartesian thought, or rather: on the absence of it in Descartes' philosophy, and Lacan's thrust to make it into the central notion of his psychoanalytical mode of thought, while still appealing to the Cartesian subject. By developing this theme I try to give an alternative to the unsatisfying postmodern solution to the Cartesian subject of 'neutral' and 'objective' vision, a 'solution' that holds subjective perspectives as fully contextualized, singular and particular. I allude to the stream of thought that considers cyberspace to be merely a liberation of old normative ('Oedipal') modes of subjectivation, in that it offers the possibilities of free, singular expression. From a psychoanalytic standpoint, this naturally is far too dismissive of the 'deeper structures' that still determine individual consciousness. Interestingly enough, Lacan took up this matter by focusing on the crucial notion of fantasy as the conditional supplement of the Cartesian subject. On the one hand, it clings to the (Cartesian) idea that the way we see things cannot directly be traced back to natural states or conditions. On the other hand it (radically) denies the (Cartesian) notion of a clear, objective, neutral (and indeed: repressive) vision. It turns so-called objective vision into vision that is always *partial*. Fantasy, considered a faculty of the body by Descartes, mediates body and mind, (real) cause and (symbolic) effect. For Lacan, the bodily aspect of fantasy is its departure from libido: fantasy provides 'psychical' objects for 'physical' drives. The Cartesian neutral perspective thus becomes a *staged perspective*, a perspective from a certain 'lived subjectivity', a specific being-in-the-world. My exposition of schematism is intended to emphasize that this does not lead to a postmodern notion of fully singularized points of view (the pov that would thrive in cyberspace). Schemata show how fantasy mediates, interfaces, the singular and the universal; how 'singular expressions' are impregnated with a general pattern. Or how the pattern becomes visible in concrete acts or expressions. Kant and Freud prepared the ground for Lacan to theorize fantasy as what (originally) mediates 'universal rationality' and 'singular subjectivity'. The scheme of fantasy illuminates how point of view (disembodied and de-contextualized in Descartes' philosophy, embodied and contextualized in postmodern philosophy) is 'embedded' in 'underlying' scenarios:

conditional scenarios that are necessary to deal with the noumenal dimension. So we *can* imagine an alternative to Oedipus. I try to do this by focusing on fantasy. Its creativity is not just a free (self) creation. It is a creativity that is *at the same time* a design of an underlying real determination, which Freudian psychoanalysis conceives to be the fundamental fantasy. Only in this sense, the model of creativity that my theory of fantasy stands for is one of 'liberation': via self-knowledge, without self-realization.

The pivotal function of mediation in Lacan's theory of representation can illuminate digital technologies' mediatization. Representations do not (rationally) reflect the real, nor duplicate it in a secondary order of illusions. They are, so to speak, the intimate expressions of a 'mute' real. For such a theory of representing the real, that does not fall back into dualisms of body and mind, or man and world, fantasy is crucial. This model of fantasy is working in the representations of the world by means of the computer screen.

APPENDIX. Semiotics: towards the notion of the referent as a *form*

> "Ecstasy is that quality specific to each body that spirals in on itself until it has lost all meaning, and thus radiates as pure and empty form" (Baudrillard, 1988, 187).

1. Introduction

Since the beginning of Western thought, or perhaps even since the origin of mankind itself, man has realized that the exchange of meaningful messages is a mediated process consisting of the transmission, reception and recognition of signs. The sign, as it is generally understood, refers to something different from itself. It presents the object in its absence. The best-known system of signs, spoken language, is therefore a medium that relates us to 'objects' (things, persons, worlds, ideas, intentions etc) that are not immediately present. Presence, or what we are inclined to call reality, is mediated by the sign. For that reason Plato considered signs as deceptive 'things': they don't reflect reality in a direct manner but merely approach it.

Western modernity, however, brings forth the thinking subject as the representation of the world in its exact form: thought is the perfect medium. The rupture between this thinking subject and the world, which is the radical consequence of the Cartesian *cogito ergo sum*, is broadly recognized or even diagnosed as the main characteristic of modern thought. The Cartesian Cogito introduces a crack in the ontological homogeneity of the universe. In a second move this (idealistic) subject nevertheless appropriates the material world by *the* medium of clear thought, thereby closing the gap in the system of knowledge. But Jean Francois Lyotard's 'theory of delegitimization' shows that contemporary thought can no longer rely upon the idea of a human rationality (in science or philosophy) that legitimizes tales of 'true' representation. A new rupture initiates and characterizes the so-called post-modern era. This is the 'breach of contract' between language and reality.[185] Language no longer represents the outside world unproblematically. Because of the intransparancy of language as a medium, this (second) rupture between subject and object is structurally insolvable. The theories of modern semiotics are to a large extent responsible for developing this perspective on the scope of the human mind.

2. 'Mentalese': meaning as an object in the mind

John Locke (1632-1704) was the first philosopher who doubted, and finally denied, the objectivity of certain elements of representation ('qualities'). He sought to understand the interconnection between representation and knowledge, thereby questioning the objectivity of knowledge. To that end he distinguished primary qualities which are 'formally objective' (determinations of space and time such as size, form, position, number: the quantitative aspects of objects) from secondary qualities which are 'virtually objective' (the objects' qualities of sense-perception, such as color, sound, smell). Those secondary qualities are 'impressions' that solely exist in consciousness and not in the things outside us, although an object may possess certain grounds (powers, 'virtutes') for giving us the impression that it is red or blue. But those powers

[185] Jean-Francois Lyotard, *The Postmodern Condition: Report on Knowledge*, (Manchester: Manchester University Press, 1986). George Steiner, *Real Presences* (Chicago: University of Chicago Press, 1989).

have no necessary resemblance or analogy to the impressions they cause in us. This body of ideas developed by Locke gave an important push to the notion of a 'virtualization of reality'.

Locke introduced the formal study of signs to philosophy. One can recapitulate Locke's philosophy of language, and that of the British empiricists Hobbes, Berkeley and Hume, in the view that meaning is not an independent 'thing' outside us, but primarily relates to our thinking or consciousness. Locke strikingly formulates this in his *Essay Concerning Human Understanding* (1690), where he states that 'the use of words is to be sensible marks of ideas; and the ideas they stand for are their proper and immediate signification'. In the current philosophy of language we call this 'mentalese'. Beyond British empirism we find its classical version in the Continental rationalism of Descartes, Leibniz and the school of Port-Royal. This rationalistic version holds ideas as present ('innate') in our consciousness from the beginning. They are not based on sensory perception as in the empiricist version. This rationalistic tradition makes itself felt in modern forms of 'mentalese', such as the linguistic theories of Noam Chomsky. He holds consciousness to a large extent as pre-structured: the principles of a universal grammar are 'innate'. Jerry Fodor's cognitive psychology uses the computational paradigm that considers mental processes as following strict rules, in order to advance the thesis of an 'innate' 'Language of Thought'.

The 'mentalese' tradition in the philosophy of language locates meaning in consciousness and not in the things themselves (direct reference) or in some other ontological domain (Platonism). Therefore it is no coincidence that the term 'semiotics' occurs for the first time in the work of John Locke. But this 'mentalese' tradition still considers meaning to be an object, an object in the mind. With that it fits our pre-theoretical intuitions of successful communication consisting of the correct understanding by the listener of a thought in the mind of the sender (the 'conduit metaphor'). Communication would thus be a matter of 'coding' a thought into language and subsequently 'decoding' it. Notwithstanding its mental character, meaning is still considered as a 'thing' that exists prior to its articulation in language.[186]

3. Ferdinand De Saussure: meaning is dependent on the sign

The work of Ferdinand De Saussure (1857-1913) radicalizes the modern turn to the thinking subject, which does not consider meaning to be independent from thought. For De Saussure one cannot conceive meaning independently of its articulation in language. The sign does not have a one-to-one relationship to its referent, and meaning is no longer the description of this reference. The concept of the sign breaks in two parts: the signifier (acoustic image) and the signified (the concept that goes along with the signifier). The sign results from the association of signifier and signified (De Saussure, 1983, 67).

> "A linguistic sign is not a link between a thing and a name, but between a concept and a sound pattern. The sound pattern is not actually a sound; for a sound is something physical. A sound pattern is the hearer's psychological impression of a sound, as given to him by the evidence of his senses. This sound pattern may be called a 'material' element only in that it is the representation of our sensory impressions. The sound pattern may thus be distinguished from the

[186] George Lakoff says on the conduit metaphor: "One of the awful things about the conduit metaphor is that it assumes that meaning is objective" (Lakoff, 1995, 119).

> other element associated with it in a linguistic sign. This other element is generally of a more abstract kind: the concept". (De Saussure, 1983, 66)

De Saussure's linguistic theories loosen the sign from its stable meaning. Two key views are decisive for this dissolution of the traditional sign. The first, which is for De Saussure the first principle of language, is the *arbitrary nature of the sign* (De Saussure 1983, 67). Or, to be more specific, the arbitrariness of the link between the signifier and the signified. Although users treat the signifier as 'standing for' the signified, there is no necessary, intrinsic, direct or inevitable relationship between the signifier and the signified. Horses could just as well be called bikes. This arbitrary and conventional character of signification, of what is signified by a signifier, is also shown by the funny situations that may arise when different languages use the same words. I remember, for instance, a Frenchman who found it quite astonishing to watch a Dutch current affairs program called 'Hier en nu' ('Here and now' in English, but in French: 'Being Naked Yesterday' – probably it could only affirm the French preconceptions about Dutch moral corruption). These examples show the ontological arbitrariness of the link between signifier and signified: the order of things does in the end not by itself cause certain names and their conventional determination by the social or cultural context. Although De Saussure mentions certain degrees of arbitrariness, the (philosophical) implication is the non-fixed character of signification. The signifier does not refer to a fixed concept. "If words had the job of representing concepts fixed in advance, one would be able to find exact equivalents for them as between one language and another. But this is not the case" (De Saussure, 1983, 114-115). This semiotic notion of arbitrariness anticipates a crucial notion of 'cyber-semiotics', which is the arbitrariness between the code-object (the zeros and ones of digital encoding) and the form in which it is expressed by the computer (applications, interfaces). Furthermore, De Saussure mentions the physical or 'material' aspect of the signifier. This gains importance in the case of new media objects, where the form of the 'interface object' is not a reflection of the (code) object's ideal signification (the cursed ideality of the signifier). The shape of the 'interface object' is also determined by the materiality of the media as well as technological possibilities and limitations.

The *relations* between the sign and other signs within the system as a whole determine the *value* of the sign. This is the second key argument for the dissolution of the sign.

> "The notion of value... shows us that it is a great mistake to consider a sign as nothing more than the combination of a certain sound and a certain concept. To think of a sign as nothing more would be to isolate it from the system to which it belongs. It would be to suppose that a start could be made with individual signs, and a system constructed by putting them together. On the contrary, the system as a united whole is the starting point, from which it becomes possible, by a process of analysis, to identify its constituent elements". (De Saussure, 1983, 112)

De Saussure 'decenters' the individual sign (as Lacan later on uses De Saussure's work to decenter the individual subject). Both the signifier and the signified are relational entities. A sound ('a') does not mean anything without its relations to other sounds ('pa'). De Saussure has a special interest in language as a system ('langue'), in the

system of rules and conventions that determine its personal use (‘parole’). This ‘embeddedness’ of sounds in a system of rules determines signification. By defining signs in terms of their relationship to other signs the conception of meaning becomes purely *structural* and *relational* rather than *referential*. The contextual structures and rules of the semiotic system determine meaning.

As the first quote from De Saussure brings to the fore, the hearer’s *psychological impression* of the sound creates the concept. Therefore both the signifier and the signified are purely “psychological” (De Saussure, 1983, 12, 14-15, 66).[187]

4. Lacan’s sequel to De Saussure

The priority of the structural system makes the meaning of a sign determinable by analyzing the underlying structures of its use. This is the appealing idea that Levi-Strauss uses for anthropology and Lacan for psychoanalysis in order to understand the ‘deeper’ meaning of the phenomena they investigate. Lévi-Strauss and Roland Barthes develop the concept of ‘floating signifiers’ – of special significance in semiotic discussions on digitization – in order to designate signifiers that are to a large extent determined by their interpreters: they mean what someone wants them to mean. They are so open to interpretation that they constitute a “floating chain of signifieds”.[188] Additionally, an 'empty signifier' is entirely devoid of a definite signified. Lacan also uses the notion of the floating signifier. He even glorifies Lewis Caroll’s Humpty Dumpty, who reasons, “when *I* use a word, it means just what I choose it to mean – neither more nor less”. It brings Humpty Dumpty very close to a sort of ‘psychotic freedom’ in which the subject does not care a straw for conventions. Knowing that Lacan’s ideas about the play of signifiers should be seen in the context of the Freudian discovery that the unconscious does not know of reference to reality, makes this ‘free play’ of the signifier more comprehensible.

Lacan’s provocative appraisal shows his attempts to alter De Saussure' theory on the arbitrary relationship of signifier and signified. He declares the ‘primacy of the signifier’: the signifier determines the signified, and not the other way around. Arbitrariness then means that the ‘effects of signification’ (‘effets de signifié’) have the appearance of having nothing to do with what causes them (S.20, 23). The signifier is first; the signified is only its effect. Therefore the signified inevitably 'slips beneath' the signifier, resisting our attempts to delimit it. However, he does think that there are some ‘anchoring points’ (‘points de capiton’) – so strongly opposed by Derrida – that (temporarily) connect the signifier to a certain signified; they institute some sort of stable signification (Ec., 154, 303). Because of this ‘fixation’ Lacan's theory differs from post-structuralist theories on the incessant sliding of signification and the post-modern fluidity of the subject. 'Gratifications' anchor the virtual subject.[189] Fantasy's

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[187] De Saussure’s theories were strongly criticized for this psychological approach. Some commentators so ardently oppose the anti-realism that goes along with the (methodological – and not necessarily ontological – putting in brackets) of (univocal) reference, that they (uncritically) advance their own preconceived notions in order to keep away from the “obscure and implausible metaphysics” that supposedly underlies the structuralist theory of language: “the plausible world view to start with is realism”, Michael Devitt & Kim Sterelny, *Language & Reality*, (Cambridge, Ma.: MIT Press, 1987, 220).

[188] Barthes, Roland, *Image-Music-Text* (London: Fontana, 1987, 39).

[189] In Lacan's earlier work fantasy receives its foundations from the Other. It is the symbolical order of language (and the conventions, structures, authorities and traditions it contains) that establishes the certainty of a representation. The law establishes meaning, i.e. certain signification. In his later work it is

‘passionate attachments’ limit the incessant sliding of signification. They pose a limit to the virtuality of meaning that the constantly changing contexts bring about.

Lacan's teachings of the 1960’s and 1970’s question the structuralist primacy of the relational system. He also focuses on specific performances or practices that are merely instances of the use of the language-system. An element of non-sense, not explainable by its relationships or its reference, 'works' in the constitution of meaning. A personal example may give a provisional idea of this line of thought. A former friend of mine, and the group of punks he was in, used to scream loudly ‘IIIEEEH’ towards people in the streets. The meaning of this specific and crazy performance of language is not interpretable by its relationships towards other sounds, or by its inherent reference. But it is not without relation to meaning at all. In a paradoxical way this ‘meaningless’ utterance establishes or founds the identity of the punks (interesting to notice how punk-novices must create the signification of their new identity by doing or saying, in a clumsy way, ‘stupid’ things) Such ‘signs without meaning’ are, at the most, understandable as part of a ‘system’ of *(identifying) marks* or signs that establish a specific lifestyle. They are not (fully) definable negatively, in a Saussurian way, by their contrast with other items. They are not “whatever the others are not” (De Saussure, 1983, 115). They also ‘are what they are’.

Lacan's 'primacy of the signifier' catches the eye in a cyber-semiotic translation of his semiotics. It is a theoretical analog to the current technological practices of interface-signifiers (sound, vision) laying down to a large extent the signification of the data-object. The signified object seems to become a mere effect ('interface culture'). It is nevertheless Lacan's psychoanalytical attentiveness for 'fixations' that prevents everything from becoming a simulation (effect), and goes beyond the interpretative and hermeneutical relation of user and sign.

5. Summary. Three positions on the relation between sign and referent: idealism, realism, and constructivism

The study of signs (semiotics) shows that reality is always mediated, a situation radicalized by the digital revolution. It leads to the pressing question whether there is a reality outside the signs at all. There are three different philosophical positions.

Idealism holds that signs construct our perception of reality, which subsequently is purely subjective. The subject constitutes reality like a projector in a cinema projects the objects on the screen. Idealism conceives this ‘screen’ as the world in its dimensions of space and time. The subject therefore not only *projects* reality, but it also *perceives* what it projects. Then there is nothing but signs, or to put it in the notorious words of Jacques Derrida: ‘there is nothing outside the text’ (Derrida, 1976, 158). There is no 'transcendent signified' (Derrida 1978, 278-280; Derrida, 1976, 20). In linguistic relativism (that some call a postmodern form of idealism) the subject does not have access to reality outside signification. An odd agent of a ‘post-modern idealism' is Lewis Carroll’s character Humpty Dumpty, who thinks that he can determine the meaning of his words without being limited by its ‘real’ reference.

The extreme opposite of this idealistic position is *realism*. As the more common-sense approach, it holds that a single objective reality is present outside us. It parallels so called ‘language-word isomorphism’ that considers correspondence between sign and

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more and more the order of the real (of the body, the drive and of *jouissance*) that is crucial to the 'fixations' of fantasy.

referent to be a one-to-one relationship. In realism the ideas and concepts of things, which the subject makes with signs, are mental reproductions of real things in the world. Exact images of the real things leads to true knowledge. So the subject must conform to the object. Photography illustrates realism's aspiration of recording the object as they really are. Nevertheless, photo-realism's claim of creating objective images received broad criticism for not recognizing the element of construction in the process of registration (cf. Mitchell, 1992, 29). And so did realism as a philosophical position. Ernst Cassirer, for instance, extensively argued that the world of images of human conduct does not simply reflect empirical facts (cf. Neumann, 1973, 121).

For the intermediate position between idealism and realism, *constructivism*, language – and every system of signs – plays an important role in our sense of reality. Sign systems structure and also construct reality. Constructivism does not eliminate the reality of the outside world, as does idealism, or simply pose it as something barely affected by the sign, as does realism. Whatever the right position between language and reality may be, the revolutionary idea in the structuralist stream in semiotics (so influential on Lacan) and which still is of major importance, is that of the referent not being a content (in the world or in the mind): *The signified concept is not a substance but a* form.

PRÉCIS

The present work addresses technology from the perspective of the philosophy of man, that is to say it attempts to understand technology in its relation to the human condition. In the broader context of classical philosophical thought this condition is characterized by a desire for 'the real thing', and for the pleasure that inhabits both the striving for real presence and its 'imagined' realization. Hence the Platonic Eros remains a crucial frame of reference for understanding these aspects of human existence, even in an age of information, just like the figures of Platonic philosophy were crucial to modern thought.

Before concentrating on the 'erotic' undercurrent guiding man's technological production, a general description of technology is given in the **first chapter**. Although psychoanalysis shares this emphasis on an erotic striving underlying human activity, it nevertheless radically differs in its conception of the goal and the realization of these desires. Therefore a description of the Eros in technology and in various classical philosophical schools is concluded by the third part of the first chapter offering an outline of Lacanian thought. Here I present the initial thrust of our understanding of new technologies from the perspective of depth psychology.

Virtuality is the key term in current information and communication technologies. This notion should however not be conflated with the digital revolution of the last decades – as a common misunderstanding would have it. A painstaking description of virtualization, and the use of the concept throughout the ages, is a necessary starting point for the **second chapter's** analysis of virtuality in relation to new technologies. I take Pierre Lévy's brief book on the notion of virtuality as a tool for focusing and fine-tuning Lacanian thought concerning this concept, which then turns out to be remarkably apt for its analysis.

The Lacanian axis of language and law are two crucial forces in the virtualization of reality. Since Lacan's work does not really deal with technology as a force for virtualization, I make a start by analyzing technology – from a Lacanian position – as the third major virtualizing force of human existence. Seeking the catalysts of this virtualizing force I describe the digital revolution in general, and specifically human-computer interface technologies. The chapter ends with a survey of the questions and problems that interface technologies pose for an understanding of human consciousness and identity.

The **third chapter** systematically analyzes the central notion of my investigations, touched upon briefly in the previous two chapters, namely fantasy. In Freudo-Lacanian theory fantasy is an ineluctable medium of human consciousness and identity: no human self is without fantasy. I introduce the crucial role of fantasy in new technological configurations of the world and ourselves by discussing the role of design.

Design, like fantasy, is the skin of human subjectivity – it gives form to what we desire. One of the crucial insights that underlie the psychoanalytical tradition is that behind apparently superficial formations such as fantasy and design no 'true presence' is hidden, waiting to be stripped of its 'false masks', and thus revealing its true face. Man's reality

is a mediated one. Since we necessarily live in 'psychic media', the concept of fantasy takes center stage.

This depth-psychological aspect of fantasy (of central importance to my thesis) is closely examined in this third chapter dealing with the theories of Freud and Lacan regarding fantasy. I also discuss Kant's analysis of this deep, constitutive and structuring aspect of fantasy (which Kant calls "imagination").

As a medium deeply embedded in the human psyche fantasy escapes the classical opposition of reality versus illusion, yet nevertheless does have a point of reference for its veracity. This is not 'objective reality' but truth, which in Lacanian psychoanalysis is always the truth of desire. Our mediated existence is a 'natural condition' that may continuously alter or widen our world, but can also result in opacity of the screen and self-enclosure. I call this condition the precarious position of subjectivation.

The insights offered by Freudo-Lacanian theory into the psychic mediation of human existence provide a good basis for analyzing, and judging, the huge impact of computer technologies on the human self. Their coherent description is pivotal for the foundation of cyborg ontology.

The **fourth chapter** displays this specific tension between the ego as a virtual unity and the virtual subject of information codes, peculiar to the position of subjectivation. It does so by reviewing the status of fantasy within this tension as it 'navigates' between two extreme possibilities, either being a mere 'screen' hiding the real or a 'window' opening up new formations of the real – what are called 'new realities'. The notion of the real turns out to be crucial for a systematical evaluation of the formations of fantasy.

This notion has been in a continuous process of theoretical construction due to its specific significance in Lacanian (trauma) theory: therefore an extensive systematic overview is presented. The systematization of fantasy as the interface between the real and the virtual, in the human mind (mediation) as well as in its current technological manifestations (mediatization), reanimates the ancient problem of the relationship between *technè* and *tuchè*.

The ideal process of communication would entail sending messages without any form of 'noise' – mathematical theories of communication postulate and theorize such an abstraction. A human science such as psychoanalysis, however, cannot disregard the elements of 'noise' in communication brought about by man as a corporeal and unconscious being. These elements of "noise", which in psychoanalysis proper concern the issue of transference, are actually at the core of psychoanalytic theory.

Hence **chapter five** starts by analyzing the 'subjective' elements inescapably introduced by man in his communication with others. In Lacan's theory of the imaginary he examines these elements, yielding insights regarding man's participation in communication as a corporeal being. These insights I then apply to information and communication technologies. I use the theory of the imaginary to address one of the central issues of current theories concerning cyberspace: that of embodiment.

This requires a description of Lacan's discussion with the cybernetic theories of his day, particularly those of Norbert Wiener. Subsequently, I extend this discussion to current interpretations of cyberspace. From a Lacanian viewpoint the crucial issue of 'embodiment' relates to the question of space. How do we occupy (cyber) space?

Lacan's notions concerning the ego concur with Freud's theory of the ego in that he basically envisions a *body* ego. Lacan attaches major importance to the libidinal investment of (self) images, which are primarily images of the body constituting personal identity. These theories are the starting point for a closer look at current technological forms of identity-construction, which I analyze under the heading avatars: technologically produced self-images.

The imaginary aspect of seeing ourselves reflected in all sorts of (technological) mirrors appears to color our habitation of the virtual space of information codes in an enduring manner. Such a theory of the fundamental tension, the opportunities and the threats to man living in both the virtual space of mirror-images and the virtual space of information codes could contribute to the formulation of a 'third wave cybernetics'. In my vision this third wave would do justice to both the role of the bodily aspects of the ego and the abstract subject of information in an age of virtuality.

The real also has a specific significance in relation to enjoyment – Lacan points to this with his capital notion *jouissance*, which is at the core of the **sixth chapter**. The question is how media-technologies relate to the real as an object of enjoyment. Fetishism is an exquisite topic for bringing this issue into focus. Fetishistic mediation shows enjoyment as not primarily 'brute consumption', but as a staged thing, put together, produced. This indicates why the media provide so much pleasure, and explains the forces of attraction and seduction behind the media's role in giving pleasure, or entertaining.

We are always at a certain distance from the real – we must mediate the real and thereby give it form. Enjoyment also occurs via the Other, mediated; or with each other as we construct shared words to satisfy our desires. Many virtual worlds of cyberspace perfectly suit this model of enjoyment seeking, which is simultaneously a self-construction – for Lacanian theory considers these two processes as joint strategies. The narrative worlds providing our existence with a recounted significance are not separate from enjoyment.

With this emphasis on the aspect of (unconscious) enjoyment in the process of self-construction, Lacan's work seems to account for a shift in Western culture from narrative to audio-visual, in which enjoyable objects – largely provided by media and technologies – have become pivotal for a sense of self. By underlining and analyzing this development in Lacan's work, I try to make it more suitable for understanding contemporary culture. Especially the notion of the *sinthome* explains signs as objects of enjoyment, besides being objects with a certain meaning. Or more precisely: signs have meaning as enjoyed things, or their meaning is enjoyed.

This leads to an analysis of life-styles as one of the central issues of current audio-visual culture: a styling of the self through enjoyable fantasy-objects. Although a self made out

of logos, brands and other objects of identification reflects the ebb of 'traditional' self-construction enforced by symbolic communities and moral appeals, this process does not necessarily increase our level of freedom. Since the model of subjectivation holds that we cannot avoid identifying ourselves – fantasmatically – as an object, the 'traditional' objectification could well be replaced by new objectifications largely produced by a capitalistic Other.

We are always caught in the double bind of identifying ourselves as a specific object, without being identical to that object. We are in between free subjectivity and determined objectivity. The model of subjectivation also shows how self-construction can get out of tune. In the terminology of meaning versus enjoyment this can happen either by too much predetermined meaning coming from a fixed set of laws (lets say, the Victorian culture of repression of Freud's time), or by providing too much enjoyment threatening the committed, 'ethical' relationship to others (a weakness of current audio-visual culture).

The seventh and last chapter presents an overview of my development of Lacanian theory on subjectivity in which it is seen to revolve around the issues of interfacing freedom and determination, ego and subject, consciousness and unconsciousness, body and 'mind'. First the role of imagination in the work of Descartes is described. Whereas his philosophy of consciousness can only give imagination a negative meaning I show that a 'philosophy of the unconscious', such as Lacanian psychoanalysis, places it at the core of subjectivity. I draw this conclusion, to round off the theory of fantasy, by analyzing fantasy as a 'schematism' always accompanying and mediating our so-called conscious awareness of the world.

We exist in between Cogito and the unconscious, that is to say, in the medium of fantasy. The discussion of Descartes and Kant situates psychoanalytical thought regarding fantasy in relation to two of the most influential currents in western philosophical tradition. Fantasy lies at the basis of this thesis' movement from mediation to technological mediatization.

Finally an **appendix** should give the reader who is not familiar with some of the basic notions of semiotic theory an introduction to the theoretical questions regarding signs and reality. As Lacan's work depends to a large extent on semiotic theories, the appendix is also relevant for understanding Lacan's thought, and its elaboration of semiotics. The central question of the appendix on the connection of signs and referent is so crucial for an age of information that I offer an overview of the most important theoretical positions on this issue.

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Samenvatting

De voorliggende studie benadert technologie vanuit een wijsgerig-antropologisch perspectief, en probeert technologie aldus te verstaan in relatie tot de menselijke bestaanswijze. In klassieke filosofische stromingen wordt deze menselijke conditie vaak gekarakteriseerd door het verlangen naar het ware, en door het genot dat gepaard gaat met dit streven naar 'presentie' en haar verbeeldde realisering. Daarom blijft in het 'informatie-tijdperk' de Platoonse Eros een cruciaal referentiepunt.

Voorafgaand aan het belichten van de 'erotische' onderstroom van technologieën geeft het **eerste hoofdstuk** een beschrijving van technologieën in het algemeen. Alhoewel de psychoanalyse ook het erotische streven in menselijke handelen benadrukt, onderscheidt het zich radicaal van het Platoonse denken wat betreft de ideeën omtrent het doel en de realisering van deze verlangens. Daarom wordt in het derde deel van dit hoofdstuk de beschrijving van de Eros in technologie en in verschillende filosofische stromingen afgesloten met een algemene weergave van het Lacaniaanse gedachtegoed. Daarin formuleer ik vanuit het perspectief der dieptepsychologie de uitgangspunten voor een begrip van nieuwe technologieën.

Virtualiteit is een sleutelpbegrip voor de huidige informatie- en communicatietechnologieën. Dit begrip moet echter niet worden vereenzelvigd met de digitale revolutie van de afgelopen decennia - een nogal veelvoorkomend misverstand. Daarom is een nauwgezette beschrijving van het begrip virtualisering en het gebruik ervan doorheen de eeuwen een noodzakelijk vertrekpunt voor de analyse die in het **tweede hoofdstuk** plaatsvind van virtualiteit in relatie tot nieuwe technologieën. Ik gebruik Piere Lévy's beknopte werk over virtualiteit als een instrument om het Lacaniaanse denken op dit begrip te richten en fijn te stellen. Dan blijkt dat dit denken uitermate geschikt is voor een analyse van virtualiteit.

Taal en wet, twee pijlers van de Lacaniaanse theorie, zijn eveneens twee cruciale krachtlijnen in de virtualisering van de realiteit. Omdat Lacan's werk zich nauwelijks richt op technologie als een dergelijke kracht maak ik - vanuit een Lacaniaanse positie - een begin met het analyseren van technologie als een derde 'grondstructuur' der virtualisering. Om de katalysatoren van deze vorm van virtualisering te achterhalen, beschrijf ik de digitale revolutie in het algemeen en de mens-computer interface in het bijzonder. Het hoofdstuk sluit af met een overzicht van de vragen en problemen die interface-technologieën stellen omtrent het bewustzijn en de identiteit van de mens.

Het **derde hoofdstuk** analyseert op systematische wijze het centrale begrip van mijn onderzoekingen, namelijk de fantasie. In de Freudo-Lacaniaanse psychoanalyse is de fantasie een onuitwisbaar medium van menselijk bewustzijn en identiteit: er bestaat geen menselijk Zelf zonder fantasie. Door de rol van design in onze technologische vormgeving van de wereld en van onszelf te bespreken, introduceer ik de centrale rol van de fantasie.

Evenals fantasie is design de 'huid' der menselijke subjectiviteit - het geeft (uiterlijke) vorm aan wat we verlangen. Een van de centrale inzichten van de Freudiaanse traditie bestaat eruit dat achter de ogenschijnlijk oppervlakkige formaties van fantasie en design

geen 'ware werkelijkheid' schuilt, die erop wacht van z'n 'valse maskers' ontdaan te worden om zo z'n ware gezicht te tonen. De menselijke realiteit is een gemedieerde realiteit. Omdat we onontkoombaar in 'psychische media' leven, speelt het begrip (der) fantasie een centrale rol.

Deze diepte-psychologische aspecten der fantasie worden in het derde hoofdstuk, dat zich richt op de theorieën van Freud en Lacan over de fantasie, nauwgezet onderzocht. Ook onderzoek ik Kant's analyse van deze 'diepe', constitutieve en structurerende aspecten der fantasie (die Kant 'verbeelding' noemt).

Als een medium dat diep ingebed is in de menselijke psyche overstijgt de fantasie de klassieke tegenstelling tussen realiteit en illusie. Toch is er een referentiepunt voor de waarachtigheid van fantasmatische formaties. Dit is niet een zogenaamde objectieve realiteit, maar de verhouding van fantasie tot wat Lacan de 'waarheid van het verlangen' noemt. Zo wordt ons gemedieerde bestaan een 'natuurlijke conditie' die ofwel ons bewustzijn van onszelf en de wereld kan verruimen, ofwel tot de duisternis van de zelf-opsluiting kan leiden. Deze mogelijkheden typeren wat ik de precaire positie der subjectivering noem.

De inzichten der Freudo-Lacaniaanse theorie betreffende de psychische mediatie der menselijke existentie bieden een goed uitgangspunt voor het analyseren en beoordelen van de grote invloed van computer-technologieën op het menselijke Zelf. Om de fundamenten te leggen van een cyborg ontologie draait het daarom in belangrijke mate om de coherente beschrijving van die inzichten.

Het **vierde hoofdstuk** toont de spanning tussen de virtuele eenheid van het *ego* en het virtuele *subject* der informatie-codes - een spanning die eigen is aan de subjectivering. Fantasie 'navigeert' in deze spanning tussen de ene extreme mogelijkheid waarin het functioneert als niets meer dan een 'scherm' dat het reële slechts verbergt, en de andere waarin het als 'venster' nieuwe formaties van het reële opent ('nieuwe realiteiten'). Het concept 'reële' blijkt van doorslaggevend belang te zijn voor een systematische beoordeling van de formaties der fantasie.

Door de specifieke betekenis van het reële in de Lacaniaanse (trauma) theorie kent het een voortgaand proces van theoretische constructie. Om hieraan recht te doen geef ik een uitgebreid systematische overzicht van dit begrip. Het theoretiseren van de fantasie als een interface tussen het reële en het virtuele, zowel in de menselijke geest (mediatie) als in de huidige technologische manifestaties (mediatisatie), reanimeert tevens het klassieke vraagstuk omtrent *technè* en *tuchè*.

Een ideaal communicatie-proces zou bestaan uit het versturen van berichten zonder enige vorm van 'ruis'. Mathematische communicatie-theorieën veronderstellen een dergelijke abstractie. Een geesteswetenschap als de psychoanalyse kan de 'ruis-elementen' die door de mens als lichamelijk en onbewust wezen in de communicatie worden ingebracht echter niet verontachtzamen. Dat dergelijke elementen in de psychoanalytische therapie tot de overdrachts-effecten worden gerekend, geeft de betekenisvolle rol aan die ze in de psychoanalytische theorie spelen.

Het **vijfde hoofdstuk** begint daarom met het analyseren van de 'subjectieve' elementen die door de mens onontkoombaar ingebracht worden in de communicatie met anderen. Lacan formuleert zijn inzicht in dergelijke elementen in zijn theorie van het imaginaire, die ik vervolgens toepas op informatie- en communicatietechnologieën. Ik gebruik de theorie over het imaginaire onder meer om een van de centrale kwesties van cyberspace te bespreken: die der belichaming van de (virtuele) codes.

Het uitgelezen beginpunt hiervoor is Lacan's uiteenzetting met de cybernetische theorieën van zijn tijd, in het bijzonder die van Norbert Wiener. Deze discussie zet ik voort naar de huidige interpretaties van cyberspace. Vanuit Lacaniaans perspectief schuilt het cruciale vraagstuk der 'belichaming' in de kwestie der ruimte. De vraag is dus hoe we eigenlijk aanwezig zijn in (cyber)space.

Evenals Freud beschouwt Lacan het ego fundamenteel als een *lichaams-ego*. De psychoanalyse kent een enorm belang toe aan de libidineuse investering in (zelf)beelden, die allereerst lichaamsbeelden zijn en in belangrijke mate verantwoordelijk voor de vorming van persoonlijke identiteit. Deze psychoanalytische theorieën vormen het uitgangspunt voor een dieper inzicht in de huidige technologische vormen van identiteits-constructie, die ik met name analyseer in de vorm van avatars: technologisch geformeerde zelf-beelden.

Dat we onszelf tevens weerspiegeld zien in allerlei vormen van (technologische) spiegels lijkt ons (zogenaamd 'ontlichaamde') verblijf in de virtuele ruimtes van informatie-codes blijvend te beïnvloeden. Vanuit een dergelijke spanning tussen de virtuele ruimte der spiegel en die der codes kan een bijdrage worden geleverd aan wat wel een 'derde stroom cybernetica' genoemd wordt. Met een 'Lacaniaanse bijdrage' aan een dergelijke cybernetica wordt meer recht gedaan aan de dubbelheid van lichamelijkheid en informationele abstractie in een tijdperk van (technologische) virtualiteit.

Het begrip reële bergt ook een belangrijk genotsaspect in zich. Lacan drukt dit uit in zijn kern-concept *jouissance*, dat centraal staat in het **zesde hoofdstuk**. De vraag is hoe media-technologieën omgaan met het reële als een object van genot. Fetisjisme biedt hierop zicht, aangezien in fetisjistische mediëring het genot niet allereerst een 'brute consumptie' is, maar geënsceneerd, samengesteld, geproduceerd. Vanuit dergelijke constructies van het genots-object valt te begrijpen waarom media zoveel genot kunnen verschaffen, en waarom ze zo aantrekkelijk en verleidelijk kunnen werken.

Een centraal punt in Lacan's theorie van het reële is dat we er altijd op een zekere afstand van zijn; we moeten het reële bemiddelen en zo een vorm geven. Ook genot verloopt via de Ander, is gemedieerd. We zouden ook kunnen zeggen dat genot gebeurt via de Ander, daar we gezamenlijke werelden construeren om onze verlangens in meer of mindere mate te bevredigen. Veel virtuele werelden van cyberspace komen overeen met dit model van het zoeken van genot, waarin tegelijkertijd het zelf geconstrueerd wordt - de Lacaniaanse theorie benadrukt de samenhang van beide processen. De narratieve werelden die ons bestaan een verhaalde betekenis verlenen zijn niet ontdaan van genot, een genot-in-de-betekenaar.

Door het (onbewuste) genots-aspect in de zelf-constructie te benadrukken, lijkt Lacan's werk zich rekenschap te geven van een belangrijke verschuiving in de Westerse cultuur; namelijk die van het narratieve naar het audio-visuele waarin genots-objecten, grotendeels verschaft door media en technologieën, onlosmakelijk verbonden zijn met ons zelf-besef. Door deze ontwikkeling in Lacan's werk te benadrukken en te analyseren, probeer ik het beter toepasbaar te maken voor een analyse van de hedendaagse cultuur. Een begrip als de *sinthome* laat zien dat objecten naast (narratieve) betekenis ook een genotsdimensie bezitten. Met tekens genieten we van betekenis, of krijgt genot betekenis

Life-styles worden dan van centraal belang in de huidige audio-visuele cultuur: we styleren onszelf door middel van lustvolle fantasie-objecten. Alhoewel een dergelijk Zelf dat opgetrokken is uit logos, merknamen en andere populaire identificatie-objecten de neergang reflecteert van meer traditionele vormen van zelf-constructie door symbolische gemeenschappen en morele aanspraken, hoeft het niet noodzakelijkerwijs onze vrijheid te vergroten. Want de opvatting omtrent subjectivering die ik verdedig, stelt dat we er niet aan ontkomen onszelf - fantasmatisch - te identificeren als een bepaald object. Zo zouden de 'traditionele' vormen van zelf-objectivering best vervangen kunnen zijn door nieuwe objectiveringen, nu gemaakt door een kapitalistische Ander.

We zitten onontkoombaar gevangen in de ambigue regels van een spel waarin we onszelf identificeren als een bepaald object, zonder daarmee samen te moeten vallen. We zitten in de speelruimte tussen vrije subjectiviteit en gedetermineerde objectiviteit. Dit model van subjectivering laat tevens zien in welke richtingen zelf-constructie door kan slaan. Wanneer we de terminologie van betekenis tegenover genot gebruiken dan kan dit ofwel gebeuren door teveel opgelegde, gedetermineerde betekenis (bijvoorbeeld de Victoriaanse cultuur van verdringing uit Freud's tijd), ofwel door dermate veel genot te bieden dat de betrokken, gesublimeerde, 'ethische' relatie tot anderen onder druk komt te staan (een gevaar van de huidige cultuur).

Het **zevende en laatste hoofdstuk** biedt een overzicht van mijn interpretatie van de Lacaniaanse theorie der subjectiviteit. Hierin draait het om de mediatie (de 'interface') van vrijheid en determinisme, ego en subject, bewustzijn en onbewuste, lichaam en geest. Ik beschrijf er allereerst de rol van de verbeelding in Descartes' werk. Waar zijn bewustzijnsfilosofie de verbeelding slechts een negatieve rol kan toekennen, laat ik zien dat een 'filosofie van het onbewuste' zoals de Lacaniaanse psychoanalyse het in het hart der subjectiviteit plaatst. Dit blijkt nog eens door fantasie te analyseren als een schema dat onze zogenaamde bewuste omgang met de wereld altijd begeleid en bemiddelt.

Onze existentie voltrekt zich in belangrijke mate tussen Cogito en onbewuste in: in het medium der fantasie. Door zowel Descartes als Kant te bespreken, situeer ik het psychoanalytisch gedachtegoed omtrent de fantasie in verhouding tot twee van de meest invloedrijke stromingen in de Westerse wijsbegeerte. Door op dergelijke manier het inzicht in de mediërende rol der fantasie nog eens te vergroten, wordt het makkelijker de stap te maken van filosofische beschouwingen omtrent mediatie naar technologische vormen van mediatisatie: de overgang die dit werk poogt te maken.

Voor de lezer die niet vertrouwd is met de belangrijkste begrippen uit de semiotiek kan de **appendix** een inleiding bieden in de vragen omtrent de verhouding tussen tekens en werkelijkheid, die ook in dit werk zo vaak aan de orde komen. Omdat ook Lacan's werk in belangrijke mate op semiotische theorieën steunt, is de appendix eveneens relevant voor het begrip van zijn werk en zijn uitwerking van de semiotiek. De centrale kwestie omtrent de verhouding van teken en werkelijkheid is van een dermate belang voor het huidige informatie-tijdperk dat ik een overzicht biedt van de belangrijkste theoretische posities hierin.

Curriculum Vitae

André Nusselder (Hummelo, 1969) studied philosophy (among which psychoanalysis) in Nijmegen (Ne.), Leuven (Be.) and Paris (Fr.). This dissertation is the result of his 2000-2004 job as a PhD student at the Faculty of Philosophy of the Erasmus University Rotterdam. He currently works among other things as a researcher at the Jan van Eyck Academy Maastricht, and as a teacher in philosophy at the Stedelijk Daltoncollege Zutphen.