The Social Production of Hybrid Space

De Sociale Productie van Hybride Ruimte

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This dissertation is dedicated to my parents, Rob and Aartje. Thanks for getting me ready for adulthood (and all of its many ploys, plots, and protagonists).

Technology reveals the active relation of man to nature, the direct process of the production of his life, and thereby it also lays bare the process of the production of social relations of his life, and the mental conceptions that flow from these relations.

– K. Marx, *Capital*, 1976 [1867], p. 493n

Man must be everyday, or he will not be at all.

– H. Lefebvre, *Critique of Everyday Life*, 2002 [1947], p. 127

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[1] https://surfdrive.surf.nl/files/index.php/apps/files/?dir=/Documents&fileid=3340808933

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> Space commands bodies.
>
> – H. Lefebvre, 1991 [1974], p. 143

> We never quit the networks, and the networks never quit us;
> this is the real coming of age of the networked society.
>
> – M. Castells, 2008, p. 448

0.0 Introduction

Chances are that by the time you reach the end of this chapter you will have used your smartphone a dozen times and that by the time you finish this book you will have added to the six hours it takes to read it from cover to cover an impressive two hours of screen time (and let's assume, for the sake of argument, and my peace of mind, that this book indeed is interesting enough to finish at all).[2] You will probably have endlessly checked Facebook, liked the messages posted by close relatives and clicked on the links shared by vague acquaintances. You will probably also have used the various WhatsApp groups that enable you to stay in touch with family, friends and colleagues while on the move. Perhaps you even managed to score a few dates via Grindr or Tinder and maybe you have even regularly used Facebook *Places* or Foursquare to check in at locations across town in order to alert friends and strangers of your presence. Yet I hope that you will have picked up, too, a few new insights about the ways in which we tend to use these – and other – mobile and locative interfaces and how these use patterns shape our everyday lives (and vice versa) in a social space that can be described as "hybrid space" (de Souza e Silva, 2006).

As is common whenever new technological affordances reconfigure our everyday lives the popular debates surrounding hybrid space often veer towards the hyperbolic, if not to say the hysterical. The supposed pros and cons of the ubiquity of computer technologies are discussed in opinion pieces, talk shows and popular books that are littered with either threats of the dystopian kind or promises of a utopian nature. Today's network culture, enabled by

[2] An avarage adult checks her smartphone 18 times a day and spends 4.5 hours a day using her smartphone. An average adult reads 200 words per minute.

the omnipresence of networked – and increasingly portable or embedded – computers, supposedly 'kills' or 'revives' our culture, 'implodes' our individual attention span or 'explodes' our collective cognitive surplus, 'destroys' or 'strengthens' community life, 'pre-emptively forecloses' or 'actively furthers' political activism, 'boons' or 'dooms' our economies, and so on and so forth (see, for instance, Keen, 2007; Lessig, 2008; Carr, 2010; Shirky, 2010; Turkle, 2011; Rainie and Wellman, 2012; Morozov, 2011; Ghonim, 2012). Meanwhile, these hyperbolic positions omit a crucial insight that we owe to the philosophy and sociology of technology: that technologies never really are either 'positive' or 'negative' in their social effects. In fact, as Kranzberg (1986) once put it in a wonderfully precise aphorism, "technology is neither good nor bad – nor is it neutral" (p. 547). They enable new types of behaviour that reconfigure older practices, experiences and conceptions as much as they constrain other types of behaviour.

In a broad sense, this dissertation is about the social production of hybrid space. Using the work of the Marxist theorist Henri Lefebvre as a theoretical framework (see, especially, section 0.2 of this chapter), I argue that hybrid space is a function of, and functions within, a very specific mode of production (in its social, economic and cultural sense) that should be defined as the urban mode of production. In chapter 1 and chapter 2, I outline the general contours of the shift from cyberspace to hybrid space, its relation to the urban mode of production, and its dominant spatial and cultural logic. For now, hybrid space can be tentatively defined as the convergence of the realm of atoms and the realm of bits, the physical world and the digital world, in and through our everyday lives. This entails that these realms cannot any longer be experienced, and should not any longer be conceptualised in day-to-day parlance and academic discourse, as separate spheres that can be entered and exited at will. "We now have a wireless skin overlaid on the practices of our lives", Manuel Castells once argued, "so that we are in ourselves and in our networks at the same time. We never quit the networks, and the networks never quit us; this is the real coming of age of the networked society" (Castells, 2008, p. 448–449). This ontological convergence cannot be precisely located and dated. Yet it is safe to say that hybrid space emerged at the end of the 1990s and became the dominant spatiality in the early 2000s across the so-called technologically advanced and economically developed world (and in parts of the so-called developing world). Today we are always already in hybrid space.

In a narrow sense, this dissertation is an inquiry into the various ways in which the daily use of mobile and locative interfaces affects our social interactions and spatial practices in public spaces and alters our experience of the city. I pursue this line of inquiry by means of

four strategic case studies into the use of mobile and/or locative (or GPS-enabled) interfaces or *urban media*. I prefer the latter notion as an umbrella term as it indicates that I am focusing on the use of smartphone applications when people are on the move through, between and across various urban spaces, that is: the 'first space' of the home, the 'second space' of the workplace and, especially, the 'third space' of – conceived in the broadest possible sense of this perhaps already old-fashioned term – public space (while, it must be noted, mixing and matching all of these spatial functions) (see Oldenburg, 1999). The cases consist of studies into the first wave of artists working with locative media (chapter 3), an analysis of the business models, interfaces and algorithms of Foursquare, an application which has, over the years, established itself as the google of context and local search (chapter 4), gay men using the GPS-enabled dating application Grindr (chapter 5), and a group of teenage girls using a variety of popular smartphone applications, such as Twitter, Facebook, WhatsApp, Instagram and Snapchat (chapter 6). For these case studies I used either textual analyses of interfaces or semi-structured interviews in order to map the various ways in which the affordances of these smartphone applications enable, and constrain, their users to navigate the social and spatial relations, forms and functions of the city.

In section 0.1, 'The Smartphone as Tool, Apparatus and Medium', I argue that the smartphone, and its mobile and locative interfaces, could be conceived of as tool, ideological apparatus and medium. This enables me to roam across the various conceptual levels that are pivotal to any inquiry into the social production of hybrid space: the productive forces, the relations of production under which the productive forces are "set to work" (Althusser, 1971 [1970], p. 131), and the spatial practices and social interactions in and of hybrid space.

In section 0.2, 'The Social Production of Social Space', I turn to the work of Lefebvre on the social production of social space in order to outline this dissertation's main theoretical framework. This section first discusses a Lefebvrean understanding of modes of production, which, I suggest, should be placed somewhere between the Marxist and the neo-Marxist, Nietzschean-inspired traditions. It then focuses on Lefebvre's doubly determined spatial triad – consisting of spatial practices and perceived space, spatial representations and conceived space, and representational spaces and lived space – that informs my analysis of the ways in which urban media enable and constrain our spatial practices and social interactions in hybrid space.

In section 0.3, 'Plan of the Present Work', I provide an outline of this dissertation's structural logic and its chapters.

In section 0.4, 'Methods', I outline this dissertation's main methodologies: Interface criticism and semi-structured interviews within the framework of Interpretative Phenomenological Analysis (IPA).

0.1 The Smartphone as Tool, Apparatus, and Medium

Throughout this dissertation I analyse the daily use of smartphones in hybrid space from three different yet interrelated angles: as a tool, apparatus and medium.

Following the pioneering work of Marxist theorist Raymond Williams, it can be argued that smartphones, as a *tool*, should be conceived of as forces of production. In 'Means of Communication as Means of Production' (2005 [1978]), Williams explains that means of communications, which included, in the late 1970s, both "mass communication" and, "though it [was] still some years away", the "self-managed", "autonomous communication" of "direct electronic exchange" via computers, should be seen as direct and indirect forces of production (pp. 56–63). The means of communication are direct forces of production because they enable the production of forms and content for the cultural and media industries as well as communities, and they are indirect forces of production because Information and Communication Technologies are intrinsic to the organisational forms of social production (see also Allmer, 2015, pp. 40–43). Let's illustrate this by means of our inquiry into smartphones.

Direct production entails both the continuous generation and capture of user-generated data as well as the user-generated content that we create and share through the various platforms and applications that we use in our everyday lives. As Fuchs (2014) explains,

> New media corporations do not (or hardly) pay the users for the production of content. One accumulation strategy is to give them free access to services and platforms, let them produce content, and to accumulate a large number of prosumers that are sold as a commodity to third-party advisers. No product is sold to the users, but the users are sold as a commodity to advertisers. The productive labour time that capital exploits involves on the one hand, the labour time of paid employees and, on the other hand, all of the time that is spent online by the users. Digital media corporations pay salaries for the first type of knowledge labour. Users produce data that is used and sold by the platforms without payment. They work for free (pp. 110–111).

So these types of direct production are so many forms of free labour for software companies,

provided by ordinary users (or "prosumers", a neologism pointing to the double role of users as producers and consumers of data and content) (see, Fuchs, 2014, p. 114–115).

Indirect production pertains to the forms of association, cooperation and organisation that correspond to a particular mode of production. "A certain mode of production", Marx (1998 [1845]) argued, "is always combined with a certain mode of cooperation, or social stage, and this mode of cooperation is itself a 'productive force'" (p. 49; also cited in Fuchs 2014, p. 40). The mode of cooperation needs to be understood, then, in the social and economic sense of the word. It has a role in economic exchange as much as it affects social interaction. I discuss the mode of cooperation in terms of the "networked operating system" (Rainie and Wellman, 2012) in chapter 1 and, in a more dialectical sense, in terms of the urban operating system in chapter 2.

As an *ideological apparatus*, a notion I appropriate from Althusser (1971 [1970]), the smartphone, and especially the many software applications (or apps) that run on its functionalities, is an ideological relay that reproduces dominant social and spatial relations. In 'Ideology and Ideological State Apparatus' (1971 [1970]) Althusser argued that ideology is not so much a cluster of ideas, a more or less coherent worldview, as it is a mode of doing and thinking embedded within the materiality of everyday life, i.e. its institutions and social practices. Ideology is relayed through 'Ideological State Apparatuses' that represent and cultivate imaginary relations to the social whole by means of normalisation and naturalisation (and hence produce common sense; that what goes without saying). He provides a preliminary list of such apparatuses, including the family, educational facilities, political parties, and so on. Most crucially for our inquiry, however, he also includes the "communications ISA (press, radio and television, etc.)" and the "cultural ISA (Literature, the Arts, sports, etc.)" (1971 [1970], p. 143).

Ideology, Althusser writes, "recruits" individuals and "transforms" them into subjects by means of a "precise operation" he called "interpellation" (1971 [1970], p. 174). He illustrates this by means of the example of a policeman hailing an individual in public space by shouting *hey, you there!* The hailed individual becomes a subject the moment he turns around by means of a "mere hundred-and-eighty-degree physical conversion" and, hence, recognises and accepts – subjects to – his or her subject position (1971 [1970], p. 174). As media theorist David Gauntlett explains, the operation of interpellation can also be used to understand the ways in which media interpellate their viewers, readers or users. "Interpellation occurs", he (2003) writes,

> when a person connects with a media text: when we enjoy a magazine or TV show, for example, this uncritical consumption means that the text has *interpellated* us into a certain set of assumptions, and caused us to tacitly accept a particular approach to the world. This can be a fruitful notion, then: it could be said, for example, that lifestyle magazines use glamour, humour and attractive photography to seduce (interpellate) readers into a particular worldview (p. 27).

Throughout this dissertation – but systematically in chapter 7 – I will analyse the various ways in which smartphone applications are ideological apparatuses that constantly interpellate – by, say, push notifications – its users.

As a *medium*, the smartphone mediates our perceptions, conceptions and experiences of hybrid space. A medium is never neutral; it is an interface that enables and constrains specific ways of seeing and doing, thinking and feeling. As media, smartphones are functions of, and function within, everyday city life and the networked or urban mode of production. Following Louis Wirth's classic essay 'Urbanism as a Way of Life' (Wirth, 1996 [1939]), cities are a "particular form of human association" characterised by three "variables": numbers, density and heterogeneity (pp. 98–102). The large number and high density of city dwellers results in the diversification of "men and their activities", a division and attribution of roles, as well as a highly complex social structure in which functions and groups are socially and spatially segregated (Wirth, 1996 [1939], p. 100). This, in turn, results in a social situation in which "physical contacts are close but social contacts are distant", which "accentuates the reserve of unattached individuals toward one another", and may lead to relative loneliness or isolation (Wirth, 1996 [1939], p. 100–101). The sheer heterogeneity of social and spatial encounters, practices and interactions results in an individualisation characterised by a "break down" of traditional communities as well as "heightened mobility" across, and "membership in", "widely divergent groups, each of which functions only with reference to a single segment of his personality" (Wirth, 1996 [1936], p. 101). This sheer heterogeneity (and the constant stimulation of the senses by stimuli unrelated to one's life) also results, as Simmel (2004 [1903]) has argued, in a "blasé attitude" (p.15; see also Wirth, 1996 [1939], p. 100), a cognitive coping mechanism that induces indifference to what's happening in one's environment. Users use smartphones to navigate, negotiate and – perhaps even – update these characteristics and consequences of metropolitan life. In the case studies

that form the backbones of chapters 3, 4, 5 and 6, I analyse the various ways in which mobile and locative interfaces mediate – enable and constrain – our social and spatial practices in hybrid space.

0.2 The Social Production of Social Space

This dissertation is about the historical moment in which cyberspace hits the ground running and hybrid space begins to reconfigure the social interactions and spatial practices of everyday life, and vice versa (but, of course, not in equal measure as we will see throughout this dissertation). Its main line of inquiry is concerned with the social production of hybrid space, i.e. the ways in which hybrid space, as a social space, is secreted by a specific mode of production as much as it reproduces this mode of production. I closely follow, here, the pioneering work of the Marxist theorist Henri Lefebvre on what he described as the social production of social space.

Lefebvre published *The Production of Space* (1991 [1974]) at the back of a wave of articles, essays and books in which he explored the role of space in cities, suburbs and rural areas as well as the many ways in which urban space gradually subsumed all other spaces in what he called "urban societies" (2006 [1970], p. 1). Lefebvre's main assumption, throughout these writings, is that social production does not produce things in space but rather space itself. "Every society – and hence every mode of production with its subvariants – produces a space, its own space" (Lefebvre, 1991 [1974], p. 31). Social production, in other words, does not take place *in* space but rather *through* a space that it creates in its own image and shapes according to specific material needs, social wants and vested interests.

Hybrid space, seen from this perspective, is a function of, and functions within, a very specific mode of production. This notion derives from Marx's writings on capitalism and its historical predecessors, and its reception history is as varied as it is controversial. It falls outside the scope of this dissertation to cover and review all of the discussions, debates, and deconstructions of Marx's notion of a mode of production. In their stead I focus, below, on two traditions that are, to my mind, the most pertinent in the context of a Lefebvrean inquiry into the social production of hybrid space. The first tradition is a Marxist tradition in which the relation between techno-economic base and superstructural institutions (culture included) is considered to be much more nuanced than a simple mono-causal, uni-directional relation cast as either a temporal sequence ('first base, then superstructure') or a spatial construct (consisting of stacked 'levels' or 'layers' on top of the base) (see, especially, Williams, 2005

[1977], p. 78). Any techno-economic base remains, here, a determining factor in the formation of the social. Yet it is no longer the sole or primordial determinant. The second tradition is a neo-Marxist tradition in which the analysis of modes of production, traditionally pertaining to nature, technology and economy, does not exclusively focus on labour and the production of material needs but also includes desire and the creation of wants. This tradition is most commonly associated with the writings of Gilles Deleuze and Felix Guattari (see, especially, 1983 [1972] and 1987 [1980]). Now, it could be argued that this shift in focus from labour and needs to desire and wants in the analysis of modes of production may very well be related to the social situation in which the respective analyses originated. The first originated in a mid-19th century moment defined by the material scarcity of industrial times; the latter originated in a mid-20th century moment defined by the material affluence of the consumer society. Yet the latter entails, too, a genuinely new and innovative approach to the analysis of modes of production that merits our full attention.

0.2.1 Modes of Production: The Marxist and Neo-Marxist Tradition

For Marx, and in the Marxist tradition as a whole, a mode of production includes both forces of production and relations of production and pertains to both economic activity and social interaction (see, for instance, Marx's preface to *A Contribution to the Critique of Political Economy,* 1977 [1859]). In its narrow (economic) sense, social production indicates that labour, i.e. the production of material needs, takes place in historically specific techno-economic infrastructures (modes of production). In its broad (social) sense it indicates that such techno-economic infrastructures "determine" many (but not all!) of the socio-institutional and ideological forms of and in the material reality of everyday life, including culture. Determination simply is, as Williams argued (2005 [1977]), the "setting of limits" and the "exertion of pressures" (p. 87). Yet this does not entail a mono-causal and unidirectional relation between techno-economic structures and other domains of the social. In fact, all of these domains dialectically determine one another and many of these domains may even have "relative indeterminacy" (Hall, 1986, p. 43). Rather, it entails that the social is constituted, or "overdetermined" (Althusser, 2005 [1962], p. 87–128), by social practices generated from within many different domains (i.e. techno-engineering, the judicio-legal, politico-bureaucratic, entrepreneurial, etc.) and is shot through with power relations (i.e. class, race, gender, sexuality, etc.), but that, in the final determining instance the techno-economic

infrastructure is the predominant determinant of the social (see, also, Williams, (2005 [1977]), p. 78).

For Deleuze and Guattari (1983 [1972]), and the Nietzschean-inspired neo-Marxist tradition, "desire is part of the infrastructure" (p. 104). In their two volumes of *Capitalism and Schizophrenia* (1983 [1972]) and 1987 [1980]), Deleuze and Guattari couple a critique of Freudian psychoanalysis to a Marxist critique of political economy in order to conceptualise modes of production along the lines of libido as much as labour. As Eugene Holland (2005) explains:

> Just as Bourgeois political economy discovered that the essence of economic value does not inhere in objects but is invested in them by subjective activity in the form of labour-power, Bourgeois psychiatry discovered that the essence of erotic value does not inhere in objects but is invested in them by subjective activity in the form of libidinal cathexis (p. 65).

In their critique of these ideological positions, Deleuze and Guattari conflate the political and libidinal economy up to the point where a certain "parallelism" between labour and desire dissolves into an analysis of a double-barrelled "production-in-general" in which there is no distinction between social practices and mental practices (1983 [1972], pp. 28, 31, 104; see also Holland, 2005, p. 65). "Desire produces reality," they write (1983 [1972]),

> or stated another way, desiring-production is one and the same thing as social production. It is not possible to attribute a special form of existence to desire, a mental or psychic reality that is presumably different from the material reality of social production (p. 30).

The main assumption of their analysis is that desire is not secreted by some kind of psychological process taking place in the inner life of an individual and that it is not premised on an insatiable or temporary lack (as it is in the psychoanalytical tradition). Desire rather is a continuous generative life force that is always expanding its scope as it connects, couples and assembles heterogeneous parts and flows into "desiring-machines" (1983 [1972], p. 38).[3] These desiring-machines or "assemblages" are both products of desire and producers of

[3] Deleuze and Guattari (2000 [1972]) write: "Everywhere it is machines; machines driving other machines, machines being driven by other machines, with all the necessary couplings and connections" (p. 8).

desire, as they function as so many relays in the perpetual process of desiring-production: "assemblages are passional, they are compositions of desire" (Deleuze and Guattari, 1987 [1980], p. 399).

Assemblages are, in sum, couplings ("…and…and…") by means of psychic and physical operations that assemble parts and flows across various scales: from the couplings of 'breast-milk-mouth'-assemblages or 'can-coke-mouth'-assemblage to couplings of groups or institutions or enterprises (see Deleuze and Guattari, 1983 [1972], p. 8; see also Schuilenburg, 2012). The largest scale, however (and this is where it becomes relevant for our inquiry) are 'megamachines' or modes of production. "The truth of the matter is", they (1987 [1980]) write,

> that social production is purely and simply desiring-production itself under determinate conditions. We maintain that the social field is immediately invested by desire, that it is the historically determined product of desire, and that libido has no need of any mediation or sublimation, any psychic operation, any transformation, in order to invade and invest the productive forces and the relations of production. There is only desire and the social, and nothing else (p. 29).

Desire immediately invades and invests the social field (including the techno-economic infrastructure) and, in doing so, produces what we want or, rather, what we *can* want within any given social situation. In itself, put differently, the libidinal economy is not regulated by scarcity but abundance. Yet in actuality it is subordinated to the repressions, representations and codes of the social field – or "socius" – of a mode of production "so that subjects can be prepared for their social roles and functions" (Surin, 2005, p. 255–256).

0.2.2 The Production of Space

Lefebvre's writings on the social production of social space should be situated between these Marxist and neo-Marxist traditions, albeit not as a bridge that enables an easy crossing but rather as a square peg in the round hole that separates them. As an idiosyncratic Marxist, he (2009 [1969]) insisted that "Marx's work is necessary but not sufficient" (p. 23) to come to terms with everyday life, social space and modernity, his main lines of inquiry. Throughout his oeuvre, dating back to the late 1920s, he combined a Hegelian Marxism with Nietzschean influences and Heideggerian overtones, while forging an undogmatic system of

thought that could – and, in the subsequent decades, would – incorporate traditions, trends and topics in a wildly prolific manner, resulting in over sixty books and hundreds of articles. In *The Production of Space* (1991 [1974]) – by most considered to be his magnum opus – this resulted in a theoretical framework that can perhaps be best described as a spatialised dialectical unity, or spatial triad, simmering with contradictions, impossibilities and possibilities. This spatial triad should be conceived as an open-ended, non-teleological "moving constellation" (Kipfer, 2008, p. 196) that highlights, by spatialising the dialectic, that any mode of production secretes a social space that enables the production of subjectivities appropriate to its functioning *and* attempts – though it cannot fully succeed – to block the historical or utopian imagination (see also Van den Akker, 2011). "Space commands bodies" (1991 [1974], p. 143).

It also enables – or, perhaps better, forces the hand of – the spatial analyst to play, as it were, on three chessboards simultaneously, moving between and across the globalising level of the mode of production, the mediating level of social space, and the highly localised level of everyday life, as it pertains to multiple scales (Lefebvre, 1991 [1974] and 2006 [1970]) and concerns itself with "collective as well as individual subjects" (1991 [1974], p. 57). Lefebvre – and by extension this dissertation – is interested, in other words, in both the dominant ways in which social space is produced and, say, the "daily life of a tenant in a government-subsidized high-rise housing project" (1991 [1974], p. 38) using, I might as well add, Facebook or Foursquare.

For Lefebvre, the production of social space can be intimated – in all its elusiveness – by means of three different moments, or analytical fixations, that are always already dynamically interrelated within in a dialectical unity: spatial practices, spatial representations and representational space. Please allow me a rather lengthy quote, to which we will return throughout this dissertation, to introduce these moments.

> 1. Spatial practice: The spatial practice of a society secretes that society's space; it propounds and presupposes it, in a dialectical interaction; it produces it slowly and surely as it masters and appropriates it. From the analytic standpoint the spatial practice of a society is revealed through the deciphering of its space.
>
> What is spatial practice under neocapitalism? It embodies a close association, within perceived space, between daily reality (daily routine) and urban reality (the routes and networks which link up the places set aside for work, 'private' life and

> leisure. […] A spatial practice must have a certain cohesiveness, but this does not imply that it is coherent (in the sense of intellectually worked out or logically conceived).
>
> 2. Representations of space: conceptualized space, the space of scientists, planners, urbanists, technocratic subdividers and social engineers, as of a certain type of artist with a scientific bent – all of whom identify what is lived and what is perceived with what is conceived. This is the dominant space in any society (or mode of production). […]
>
> 3. Representational spaces: Space as directly lived through its associated images and symbols, and hence the space of 'inhabitants' and 'users', but also of some artists and perhaps of those, such as a few writers and philosophers, who *describe* and aspire to do no more than describe. This is the dominated – and hence passively experienced – space which the imagination seeks to change and appropriate. It overlays physical space, making symbolic use of its objects. Thus representational spaces may be said, though again with certain exceptions, to tend towards more or less coherent systems of non-verbal symbols and signs (Lefebvre, 1991 [1974], pp. 38–39).

This spatial triad has been interpreted and put to use in many different ways, which speaks for its theoretical richness as well as its conceptual slipperiness (see, especially, Harvey, 1990, p. 220–221; Merrifield, 1993; Soja, 1996; Shields, 1999; Stanek, 2011). So a few remarks concerning the manner in which I understand it are in order.

The moments of the spatial triad are doubly determined; its spatial categories correspond to phenomenological categories. Spatial practices correspond to perceived space; spatial representations are linked to conceived space; and representational spaces correspond to directly lived space (1991 [1974], p. 40).

Spatial practices pertain to our idiosyncratic routines and sense perceptions as we move across spaces in our everyday lives. Yet this category also points to the various ways in which social spaces organise – temporally and spatially – our daily practices and sense perceptions by enabling certain types of behaviour (while allowing for minimal divergences) and constraining other types of behaviour (by not allowing major divergences). Social spaces, to put it slightly differently, determine what can – and cannot – be done, made visible and

audible, touched, smelled, and tasted; or, rather, what kind of stimuli can be perceptible in and through the hegemonic "urban sensorium" (Goonewardana, 2005) of social space; that which can be "*mise-en-scene*" and that which is "obscene" according to specific codes of conduct (Lefebvre, 1991 [1974], p. 36).

In its narrowest sense, *representations of space* are generated, or selected, by the hegemonic classes and pertain to the dominant ways in which social spaces should be organised, regulated and administered. These representations – say, cadastral maps or Google Maps – are shot through with relations of capital and power and reproduce these social relations in and through social space. Representations of space are, in other words, forms of knowledge – ideology, discourse (1991 [1974], p. 45) – that produce and reproduce preferred ways of life and common sense (which is a hegemonic, everyday form of knowledge – see, for instance, Hall, 1997, p. 3). Yet in its broadest sense, which is curiously absent from Lefebvre's description of his key categories, representations of space must also be seen as the forms of spatial knowledge ordinary 'users' or 'inhabitants' possess based on their everyday perceptions and bodily experiences of social space. The notion of 'cognitive mapping' – in both its Lynchian and Jamesonian sense – might come closest to what I have in mind, here.

In the *Image of the City* (1960), a seminal work in urban studies, Kevin Lynch discussed the ways in which people find their way in the city, go about town, and move through urban space. He held (and it still holds) that people orientate themselves and find their way by means of a representation of the physical and social environment – which Lynch describes as a "cognitive map" or "mental image" (1960, p. 1–13). "This image", he wrote, "is the product both of immediate sensation and of the memory of past experience, and it is used to interpret information and to guide action" (1960, p. 4). Cognitive maps, in other words, inform spatial practices as much they are determined by sense perceptions and lived experiences. These cognitive maps are not necessarily coherent and geometrically accurate representations (Tversky, 1993). As a form of "embodied spatial cognition" (see for instance Trefton and Harison, 2011) they contain distortions. Interestingly, Lynch found that people, when asked to 'draw' their cognitive maps, organise their social and physical environment in paths (routes), edges (boundaries), districts (areas with distinctive traits), nodes (squares, crossroads, junctions) and landmarks (monuments, buildings) – that is: key characteristics of the urban landscape (Lynch, 1960, pp. 46–84). Lynch therefore concludes that rather than "a single comprehensive image for the entire environment, there seem to be sets of images, which more or less overlapped and interrelated" and that are organised as layered levels (p. 85–86). In the following chapters, and especially in chapters 3, 5 and 6, I argue that our representations of

hybrid space include another such level, which overlays, as it were, an older set of environmental images, consisting of a network-topology representing the mobility, directionality and intentionality of social peers.

This description of cognitive maps, however, omits the crucial ideological dimension of Lefebvre's notion. Fredric Jameson's appropriation of the term – "something of a synthesis between Althusser and Kevin Lynch's formulation", as he (1990) described it – is helpful, here. For Jameson, the interplay between perceived space and mental representations of space can be seen as a "spatial analogue of Althusser's great formulation of ideology itself" (1990). "Ideology", Althusser wrote, "is the Imaginary representation of the subject's relationship to his or her Real conditions of existence" (1971 [1970], p. 162). This description casts ideology in spatial terms and highlights that cognitive maps – and everyday representations of space – inform the various ways in which people make sense (through common sense) of their everyday subject positions and possible range of practices within wider social structures, such as the mediating level of urban spaces or the globalising level of the mode of production.

Representational space, lastly, is the space that dominates, or provides the determinate conditions for, our "affective, bodily, lived experience" by means of its representations and repressions (1991 [1974], p. 224). It is the space of being; the space we inhabit corporeally. Throughout *The Production of Space*, Lefebvre oftentimes discusses the body and/or Nietzsche in relation to desire (see for instance 1991 [1974], pp. 135, 139, 196, 353, 391, 393–395), without, to be sure, giving ontological primacy to it in the manner of Deleuze and Guattari, yet with sufficient regularity to be able to argue that, for him, psychic practices and social practices warrant the same amount of critical attention in any analysis of social production. He elaborates on the notion of desire in a lengthy passage toward the end of *The Production of Space* (1991 [1974], p. 393–395). Desire, he writes, echoing Deleuze and Guattari's take on the matter, must be sharply distinguished from the notion of needs, which, in the psychoanalytic tradition, are a function of a lack that can only be temporarily satisfied (1991 [1974], p. 394). Rather, it is an "undifferentiated", "creative" force; the "yeast that causes […] lifeless dough to rise", while it "prevents stagnation" and "produces differences" (1991 [1974], pp. 394–395). For Lefebvre, desiring-production may not be one and the same thing as social production, as it is for Deleuze and Guattari, but the libidinal economy most definitely has its place in any social production of social space.

Taken together, we can conclude that social space is a function of, and functions within, particular modes of production. It commands bodies and determines ways of doing, thinking

and feeling (and vice versa). Social space is, in other words, "political and ideological" (Lefebvre, 2009 [1972], p. 171); it has a body politics.

0.3 Plan of the Present Work

This dissertation is structured according to the Lefebvrean "regressive-progressive" approach (Lefebvre, 1991 [1974], p. 65 and Lefebvre, 2003 [1953], p. 117). This is an approach to analysing contemporary social phenomena, such as hybrid space, in a dialectical materialist manner, while balancing "historical and sociological study" (Elden, 2004, p. 38). "There are three phases," Lefebvre (2003 [1953]) explains,

> a) *Descriptive*. Observation, but with an eye informed by experience and a general theory. In the foreground: participant observation of the field. Careful use of survey techniques (interviews, questionnaires, statistics).
> b) *Analytic-regressive*. Analysis of reality as described. Attempt to give it a precise *date* so as not to be limited to an account turning on undated 'archaisms' that are not compared with one another).
> c) *Historical-genetic*. Studies of changes in this or that previously *dated* structure, by further (internal or external) development and by its subordination to overall structures. Attempt to reach a genetic classification of formations and structures, in the framework of the overall structure. Thus an attempt to return to the contemporary as previously described, in order to rediscover the present, but elucidated, understood: explained (p. 117).

This deserves some unpacking. Let's start with Jean-Paul Sartre's explanation. Sartre cites and praises this passage in *The Critique of Dialectical Reason* (Elden, 2004, p. 38). He writes:

> We have nothing to add to this passage, so clear and so rich, except that we believe that this method, with its phase of phenomenological description and its double movement of regression followed by progress is valid – with the modifications which its objects may impose upon it – in all domains of anthropology (cited in Elden, 2004, p. 38).

There are two things to take from Lefebvre's passage and Sartre's explanation. First, the three analytical moments can be described as (A) a 'phenomenological' moment in which the present is *described* in phenomenological terms while being informed by a general theory and using sociological studies; (B) a 'regressive' moment in which the described present, i.e. the

totality of social relations that make up the contemporary, is 'dated' – that is: historicised and periodised – and then analysed in the light of this historicisation and periodisation; and (C) a 'progressive' moment in which we return to the present (its social structures and ideological formations) as described (A) and analysed (B) in order to explain the contemporary phenomena under investigation. In doing so, "the past appears in a different light, and hence the process whereby that past becomes the present also takes on another aspect" (Lefebvre, 1991 [1974], p. 65).

Second, this method needs to be modified in the light of the object of study, which is, in our case, the social production of hybrid space (and the central role of mobile and locative interfaces in its production). In the following, I closely follow this method while only slightly modifying it, in chapter 1, by adding economically informed observations to the sociologically informed observations that together make up the 'phenomenological' description of the contemporary moment.

In this first chapter, 'The Production of Hybrid Space: The Technological Revolution Revisited', I argue that hybrid space emerged from, and superseded, the 'ontological dualism' of the pairing physical space-cyberspace that has been the dominant spatiality of the post-industrial or informational mode of production. I then argue that hybrid space became the dominant spatiality around the turn of the millennium, alongside the becoming dominant of what is often described as the networked mode of production. I support this periodisation thesis by using the work of the economist Carlota Perez on 'technological waves' (2002; 2009b), which reflects the mainstream narrative of a revolution in Information and Communication Technologies, originating in the 1970s, that spurred innovations, restructured businesses and changed societies, resulting in a networked mode of production. I then use Lefebvre's spatial triad to provide a sociologically informed 'phenomenological' description of hybrid space by focusing on the dominant, and hence common sense, notions surrounding the spatial practices, spatial representations and directly lived experience of, and in, hybrid space. Chapter 1, in other words, makes up the first analytical moment (A) of the 'regressive-progressive' approach.

In chapter 2, 'The Urban Mode of Production: The Urban Revolution Revisited', I move to the second analytical moment (B) in the 'regressive-progressive' approach by, first, historicising the web of social relations that together constitute hybrid space and, then, revisiting our initial phenomenological description in the light of our findings. This chapter is, in many ways, the mirror image of chapter 1, as the former dialectically revisits, from the perspective of production, the descriptions of hybrid space (and its mode of production)

provided in the latter. In the second chapter, to use Marx's (1976 [1867]) phrasing, we descend from chapter 1's "noisy sphere" of circulation and exchange into the "hidden abode" of production (p. 279). I do so by arguing that the origins of hybrid space, as well as its corresponding *urban* mode of production, can be found in what Lefebvre described as the urban revolution of the 1960s rather than the technological revolution of the 1970s. Technologies are "social, before being technical" (Deleuze, 2006 [1986], p. 34–35).

I then show that there are two 'passages' related to the emergence, and becoming dominant, of the urban mode of production. The first passage, an indirect trajectory, originates in the '1960s' and pertains to changes in the technical composition of labour (Who produces? What is produced? How is it produced?) and the emergence of a political economic form of control that can be described as neoliberal governmentality; the second passage, a direct trajectory, originates in '1960s California' and pertains to the hardware and software emanating from, or created in the spirit of, Silicon Valley (and its Californian ideology) and the emergence of a cybernetic form control of that can be described as algorithmic governmentality. I argue that the urban mode of production can be characterised by a double production of space – and hence subjects – informed by the 'for benefit' logic of the commons and the 'for profit' logic of control. I then revisit the sociologically informed 'phenomenological' description of hybrid space by analysing the Lefebvrean spatial triad in the light of this chapter's findings.

In Part II (chapter 3 and 4) and Part III (chapter 5 and chapter 6), I move to the third analytical moment (C) of the 'regressive-progressive' approach.

In chapter 3, 'Networked Bodies: The Aesthetic Regime of Hybrid Space', I discuss two waves of so-called Locative Media Art, an art form that has as its medium unscrambled GPS signals and mobile interfaces, in order to tease out the techno-social affordances of mobile and locative interfaces, outline the dominant 'situationist' frame that has informed the socio-cultural imaginary surrounding the development of mobile and locative interfaces, as well as analyse the new aesthetic regime corresponding to a structural transformation of public space in, and of, hybrid space. Whereas mobile and locative interfaces reflect many of the values that the Situationist International promoted to criticise the industrial mode of production and its associated social space, these values now merely reflect the dominant features of the urban mode of production, the urban operating system and its hybrid space, i.e. autonomy, flexibility and creativity in and through a networked, "mobile civilization" (see Chtcheglov, 2006 [1953], 2007, p. 4). By picking up on, and then extrapolating, suggestions by the critics

Bratton (see Bratton and Jeremijenko, 2008) and Tuters (2009) pertaining to the relation between locative media art and Rancière's notion of the "distribution of the sensible" (2006), I then argue that the crucial insights that the locative media art scene do provide, and what makes many of its most canonical proponents examples of good art, are related to their anticipations of the emergence of a new aesthetic regime, and of a new politics of the aesthetics of public space, in, and of, hybrid space: the aesthetic regime of aesthetics.

In chapter 4, 'Dividuals: The Orchestration of Chance', I analyse the business models, interfaces, and algorithms of Foursquare, the most successful of all of the stand-alone location-based social networks and/or mobile games launched during the first wave of such mobile and locative interfaces, alongside now defunct applications such as Loopt (2005–2012), Gowalla (2007–2012), Brightkite (2007–2012) and Google Latitude (2009–2013). Foursquare has seen many iterations – and even split into two different applications – in order to be able to "de-emphasise" location check-ins and focus on "local search and location recommendations" and end up, today, as the "location layer of the internet" (Frith, 2015, 103–106). Moreover, its Application Programming Interface (API), which gives software companies access to its very large database of locations, contexts and user-generated yet location-bound content, enables over a hundred thousand app developers to power their own functionalities, including Instagram (before its takeover by Facebook), Flickr, Snapchat, Twitter, Pinterest, Uber, and Microsoft (see Gell, 2017). When one combines all of the users of all of these different applications, Foursquare has hundreds of millions of users interacting with its database (see Frith, 2015, p. 105). Foursquare, in other words, has quickly established itself as the 'Google of local search and context' (rather than the 'Facebook of places' it had set out to become).

I then move from the analysis of its many business models based on its database with location- and user data to an analysis of its own interfaces and algorithms. I argue that the gaming interface of Classic Foursquare (2009–2014) and its continuation in (Foursquare) Swarm (2014–present) interpellates users to check in at, and visit, as many new locations as possible and share these locations with as many friends as possible (enabling chance encounters) in a competitive environment. In this sense it can be seen as the pre-eminent ideological apparatus of an urban mode of production that, too, puts a competitive advantage on heterogeneous, playful, and aleatory encounters (in a spatial and social sense). These check-ins feed into the database that powers the local search and recommendation functionalities of Foursquare 8.0 (2014–2016) and Foursquare (City Guide) (2016–present). Today these are the main functionalities of Foursquare. I analyse Foursquare's interface in

order to argue that it interpellates users by enabling the exploration of, and by suggesting new places in, hybrid space. Taken together, I conclude that the algorithms of Foursquare City Guide and Foursquare Swarm attempt to orchestrate chance in hybrid space by means of software orchestration and network orchestration.

In chapter 5, 'London Cruising: The Synchronization of Desire', I conduct a case study into the use of Grindr, a GPS-enabled dating application for gay men. For this case study, I conducted open-ended, semi-structured interviews with nine users of Grindr, mostly based in London, a city that could be described as one of the capitals of Grindr. These interviews were recorded and transcribed to unearth the most dominant use patterns enabled by the application. In the popular imagination Grindr is an app that enables sexual encounters between gay men. This is neither incorrect nor the whole picture – far from it. I argue that Grindr enables three different types of use patterns. Users use Grindr for (1) making new friends and neighbourliness, (2) flirting and dating, and, indeed, (3) cruising.

Interestingly, Grindr's interface does not provide a lot of features to filter that which can be perceived in hybrid space. Based on one shared interest, namely meeting other gay men, and some basic filters such as age and distance, the interface shows each and every user within a certain hybrid environment. Of course users do filter out, or in, other user's profiles, but this happens, as it were, after the fact, by the users themselves. I analyse the various filtering strategies of users. Ultimately, I argue that users of Grindr synchronise desire – by negotiating routine behaviours and chance encounters – as they move through hybrid space.

In terms of body politics, Grindr seems to ride a recent wave of developments that have resulted in an increased heteronormativity of hybrid space. In recent years, and for various reasons, many gay bars and cruising areas have been closed in London. Whereas Grindr makes visible to its users all of the other gay men using Grindr in the vicinity, Grindr also seems to tap into, and perhaps even furthers, the resulting lack of visibility of, as well as the decreasing number of centralised meeting places for, the gay community at large. Moreover, the application's interface, which needs to abide by the regulations of, say, the Apple Store, enables a very particular – dare I say, heteronormative – form of homosexual desire and constrains other types of sexuality. The politics of the aesthetics of queer hybrid space, I therefore conclude, has the paradoxical result that *that which is common* to the gay community itself (that which is visible and sayable), is very much invisible, and increasingly so, to the general public, and hence becomes uncommon. This points to a new feature of the politics and aesthetics of hybrid space and a structural transformation of public space.

In chapter 6, 'Teenage Tweet Tribes: Ambient Contact in Intimate Spheres', I conduct a

case study into the use of smartphones by a group of female friends that I followed from 2013 to 2017, or from their teenage years to young adulthood. For this case study I combined group observations and personal conversations with twelve open-ended, semi-structured interviews (which ultimately form the basis of my research). The interviews were recorded and transcribed to detect shifts in use patterns across platforms and applications that include, mainly, Ping, Twitter, Facebook, WhatsApp (owned by Facebook), Instagram (also owned by Facebook), and Snapchat. I paid particular attention to the many ways in which these applications enable constant – all day, every day – and ambient awareness of the doings and goings of the group, as well as its individual members, as they move about in, and through, hybrid space. I argue that, first, Twitter and, then, WhatsApp enable this teenage tweet tribe to appropriate hybrid space in a "territorial" manner (Ingold, 1987, p. 130-164) that is especially befitting for the nomadic and flexible nature of the urban operating system and the urban mode of production. 'The girls', as they describe themselves, do constantly signal – much like the territorial behaviour of tweeting birds – where they are, who they are there with, and what is happening there. In doing so, they generate an ambient awareness that informs a cognitive map of hybrid space that is not so much informed by static objects or landmarks (as in the classic study by Kevin Lynch, 1960) but rather by movements, mobility and directionality. I then analyse their use of the WhatsApp group 'de beste vriendinnetjes' ('best friends') in terms of the spatiality of their ritual interactions, the totemic qualities of the WhatsApp group itself, and the omnipresent sphere of intimacy they inject into every other social situation of their everyday lives. 'The girls' – as a group – are always already with them.

Then, I move to an analysis of their use of mobile social media platforms such as Facebook, Instagram and Snapchat. Platforms such as Facebook and Instagram are mostly used to share photos, which are invariably tagged to indicate where they have been taken and with whom. This practice serves several purposes. Most importantly, it enables a mode of identity formation, or presentation of the self, that is structured around one's voyages, or roamings, across hybrid space, as well as a mode of memory archiving that is structured around visited places. Snapchat, meanwhile, seems to point to a form of communication that is mostly visual rather than verbal and hence tilts hybrid space towards the visible rather than the sayable.

I end this case study by revisiting the phenomenological 'description' (chapter 1; analytical moment A) and 'analysis' (chapter 2; analytical moment B) of the structure of experience of hybrid space by analysing the structure of experience of hybrid space as directly lived by the girls. I argue that the girls (as well as the gay men studied in chapter 5) indeed

often use their smartphone apps when they are bored (which points to the post-boredom description of the structure experience in chapter 1) but that it would be more accurate to say that these user groups constantly – all day, every day, as it were – use their smartphones, and especially the applications studied in these case studies, by foregrounding the specific affordances of these applications while moving through hybrid space (which seems to confirm the analysis, in chapter 2, of the dominant structure of experience of hybrid space as a manic restlessness).

In chapter 7, 'Conclusions', I summarise this dissertation's main findings and point to further lines of inquiry.

0.4 Methods

This dissertation contains four case studies into the various ways in which the production of hybrid space takes place. These case studies are designed around two main qualitative research methods: interface criticism and interviews within the framework of Interpretative Phenomenological Analysis (IPA).

In Part II, I analyse the representation of hybrid space by means of critical analysis of the mobile and locative interfaces constructed by, respectively, locative media artists (chapter 3) and Foursquare's developers (chapter 4). "Interface criticism", Berry and Fagerjord (2017) helpfully explain, is a method that is "firmly based in the humanities and its tradition of theory and critique of text and visuals" (p. 351). They (2017) write:

> Where ideology critique of the 1960s concerned ideology embedded in mass communication, a similar critique of the 2010s would have to be of the algorithms and [interfaces] of social media (p. 367).

Ultimately interface criticism is a sub-variant of the study of representations (see our previous discussion of the Althusserian apparatus, the Lefebvrean representation of space and, of course, Stuart Hall's (1997) seminal work in cultural studies). Representations, as Rose (2002) reminds us in *Visual Methodologies,* "offer views of the world" and "render the world in visual terms", yet, in doing so, "they display it in very particular ways" (p. 2). Interface criticism engages with the 'particular ways' in which interfaces display the world by analyzing the functional (how does it work?), visual (look and feel), and semiotic (what does it mean?) aspects of interfaces, and hence uses descriptive and interpretive techniques from methods such as visual analysis, semiotic analysis and discourse analysis. It, in other words,

conceives of interfaces as “manifestations of ideologies and policies that governed their design” and criticizes interfaces in order to unearth the "embedded forms of assumed knowledges, norms and politics” that have been “inscribed” in interfaces (Berry and Fagerjord, 2017, p. 366).

In Part III, I use interviews so as to be able to describe and interpret the dominant ways in which users – thirty-something gay men using Grindr (chapter 5) and teenage or young adult girls using a variety of mainstream applications (chapter 6) - negotiate the affordances of mobile and locative interfaces, as well as the impact of these interfaces on their everyday lives in hybrid space.

The interviews have been designed and analysed in line with Interpretative Phenomenological Analysis (IPA) (see especially Smith et al., 2009). This method, as Smith and Osborn (2007) explain, aims to “explore in detail how participants are making sense of their personal and social world” by combining idiographic, phenomenological, and hermeneutic approaches (p. 53). It requires, as Larkin and Thompson (2012) put it, “the researcher to collect detailed, reflective, first-person accounts from research participants” and “provides [a] phenomenologically focused approach to the interpretation of these accounts” (p.101). IPA involves, in other words, a “double hermeneutic”: Respondents recount, and make sense of, idiosyncratic perceptions and experiences as much as the researcher reflects on, and makes sense of, these singular accounts (Smith and Osborn, 2007, p. 53). IPA is, in other words, highly committed to thick description and elaborate interpretation. It attempts, as such, to “give voice” to, and “make sense” of, a “person-in-context” (Larkin and Thompson, 2012, p. 101-102).

The sampling strategy consisted of a combination of convenience sampling and snowball sampling. Since the interviewer is an adult heterosexual male and the interviewees were either gay men or teenage girls, he could not assume trust or an automatic rapport – and could even be perceived to be intimidating (as with the teenage girls) or intruding (as with the gay men). He therefore asked a first respondent with whom that rapport had already been established (i.e. convenience sampling) to be introduced to other respondents (and so on – the snowballing in question). This process was continued until the “required number” had been obtained (as with the self-identified in-group of the girl friends) or a “saturation point” had been reached in terms of generating new information (as with the gay men) (see Kumar, 2011, p. 546). The limitations of this dual approach are that the results cannot be generalised to the whole of the population (because of the convenience sampling) and the results pertain to a specific - and self-selected – group (following the snowball sampling) with specific biases

(see Kumar, 2011, p. 509 and p. 547). In this case, however, the method has been useful – and has even proven to be necessary – to contact respondents and convince them to be interviewed. Moreover, as Smith and Osborn (2007) explain, IPA usually depends on "small sample sizes" and "a fairly homogeneous sample" because "the aim of the study is to say something in detail about the perceptions and understandings of this particular group" (p. 55-56).

The interviews have been conducted with, respectively, 9 (chapter 5) and 12 (chapter 6) respondents and consisted of individual in-depth interviews. They have an average length of an hour (and a minimum length of 30 minutes and a maximum length of 90 minutes). Taylor and Bogdan (1998) explain that in-depth interviews consist of

> repeated face-to-face encounters between the researcher and informants directed towards understanding informants' perspectives on their lives, experiences, or situations as expressed in their own words (p. 77).

Since it could not be automatically assumed that the respondents would be willing to freely share their thoughts and feelings – and both groups were asked about very detailed, intimate and personal aspects of their smartphone usage – this approach has been deliberately chosen. Due to its length and nature, the in-depth interview is particularly suited, as Kumar (2011) explains, to develop and "enhance" a "rapport" between interviewer and interviewee - "and […] the corresponding understanding and confidence between the two will lead to in-depth and accurate information" (pp. 430-431).

The interviews have had a semi-structured design with open-ended questions loosely based on a prompt sheet (or interview guide – see appendix A). This is a highly flexible approach and the "exemplary method for IPA" (Smith and Osborn, 2007, p. 57). It enables the interviewer to claim "the freedom to think about and formulate questions as they come to […] mind around the issue being investigated" (Kumar, 2011, p. 384). This approach is particularly useful for exploratory studies with a strong interest in the phenomenological-experiential dimensions of everyday life.

The interviews were recorded, anonymised (and numbered), and transcribed. The recorded audio and the transcripts were, respectively, listened to and read multiple times to (1) get familiarised with the data, (2) iteratively describe and analyse the data (by taking notes, selecting citations, relating to concepts, etc.); (3) heuristically describe and interpret the data (by distilling common themes and shared experiences and understandings) and (4)

present the data in, and through, over-arching narratives particular for the relatively homogenous groups under consideration, while extensively incorporating verbatim quotes (slightly edited for readability purposes) to support the arguments and the argumentation.

PART I.

THE SOCIAL PRODUCTION OF HYBRID SPACE

> The peculiar difficulty of dialectical writing lies indeed in its holistic, "totalizing" character: as though you could not say any one thing until you had first said everything; as though with each new idea you were bound to recapitulate the entire system.
>
> – F. Jameson, *Marxism and Form*, 2016 [1971], p. 306

CHAPTER 1
THE PRODUCTION OF HYBRID SPACE
The Technological Revolution Revisited

> While the profit motive is the propeller, the technological style is the steering mechanism.
>
> – C. Perez, 1983, p. 364

> The *networked operating system* gives people new ways to solve problems and meet social needs. It offers more freedom to individuals than people experienced in the past because now they have more room to maneuver and more capacity to act on their own.
>
> – L. Rainie and B. Wellman, 2012, p. 9

> We know where you are. We know where you have been. We can more or less know what you're thinking about.
>
> – E. Schmidt, CEO of Google (cited in Saint, 2010)

1.0 Introduction

In this chapter, I outline the emergence of the basic contours of hybrid space, as well as the networked mode of production (as it is conceived of in everyday discourse). In section 1.1, 'From Cyberspace to Hybrid Space: A Brief Technological History', I sketch a brief history of the transition from cyberspace to hybrid space. Both of these notions render the experience of computer-mediated communication in spatial terms, yet their respective spatialities are very different. Whereas the metaphor of 'cyberspace' maintains a "digital dualism" (Jurgenson, 2011) in which the physical and digital realms remain separate worlds, 'hybrid space' denotes an ontological convergence of the realm of bricks and the realm of bytes.

In section 1.2, 'The Networked Mode of Production', I turn to the mainstream narrative about the emergence of today's mode of production as a technological revolution that spurred innovations and changed businesses, economies, and societies as the world wide web developed into a user-friendly, platform-based interface under the name "Web 2.0" (O'Reilly, 2005a; O'Reilly and Battelle, 2009, p. 1). This section serves, too, to support my

periodisation hypothesis concerning the transition from cyberspace to hybrid space around the turn of the millennium.

In section 1.3, 'Networked Individualism', I discuss three common sense assumptions concerning the nature of hybrid space. I deliberately use the notion of 'nature' to indicate that these common sense assumptions are ideological constructs – or representations – that obscure that hybrid space is a function of, and functions within, a *historically* determined web of social and spatial relations and *naturalises* these relations. I use the Lefebvrean spatial triad to structure this section. I discuss the new common sense concerning spatial practices through the lens of the "networked social operating system" (Rainie and Wellman, 2012), conceived space in relation to the post-privacy discourse, and the lived experience of space through the notion of "always on/always on you" (Turkle, 2006) which conveys the idea that we can't, as it were, switch off and leave hybrid space, and which points to a new "structure of experience" (Benjamin, 2015 [1939], p. 156) that I describe as *post-boredom.*

1.1 From Cyberspace to Hybrid Space: A Brief Technological History

The notion of hybrid space is intended to replace the notion of cyberspace that shaped the social imaginary during the previous historical stage of the internet (see, for instance, De Souza e Silva, 2004). Coined by science-fiction author William Gibson (1984), cyberspace is considered to be the "founding spatial metaphor" (Cohen, 2007) of the internet, and it gained and held traction – throughout the 1980s and 1990s – as a placeholder for the affordances of computers during the first decades of their development (Graham, 1998). The metaphor of cyberspace conveyed the idea of a brand new social space with a spatiality that should be sharply distinguished from the spatiality of everyday life. It initially evoked a *terra nova* beyond the limitations of the physical world; a virtual realm invested with utopian and dystopian fantasies about the migration of place-bound, embodied and face-to-face interactions to a placeless, faceless and disembodied digital realm; a new frontier, largely unexplored and still difficult to navigate (except for a minority of skilled hackers or trained hacks), beyond which new and vast spaces opened up for digital migrants prepared to leave solid land. Over time, as more and more users mapped the contours of cyberspace, cultivated its lands and familiarised themselves with its scenery, these notions gave way to less speculative ideas about the nature of cyberspace (and the introduction, in the mid-1990s, of the first user-friendly browsers with graphical rather than text-based interfaces deserves a special mention, here). Still, cyberspace promised to be a parallel universe – or multiverse (Stephenson, 1992), really – unmoored from the place-bound practices of everyday life

(Jacobs, 1999); a "post-geographical space" inaugurating the "end of place", the "death of distance" and the "withering away of urban space" (Graham, 2004). Sex and love, friendship and community, work and leisure – their futures would all be digital, for better or for worse.

In hindsight this "digital dualism" seems to be quite odd. This is especially so, as De Mul (2010) argued, because "the emigration to cyberspace" has always also implied "the colonisation of everyday life by cyberspace" (p. 2). A debit card payment for instance occurs both in, say, a "super market" and the "post-geographical space of cyberspace" (De Mul, 2010, p. 2). Yet at the time, during this particular historical stage in the development of computer networks, there were good reasons to maintain the metaphor of cyberspace as well as its conceptual distinction between physical space and digital space. Metaphors do have material consequences; but they also always originate from the materiality of everyday. Cyberspace indeed seemed to be a space for frictionless communication and collaboration across the globe, bypassing place as computers began to span the planet, connecting the most distant people and remote regions, as so many nodes in a vast information and communication network that formed the infrastructure for a world wide web. In *The Death of Distance* (2001 [1997] Frances Cairncross for instance maintained that "new communications technologies are rapidly obliterating distance as a relevant factor in how people conduct their business and personal lives" (backcover). Businesses and people benefiting from frictionless communication through global networks of peers invested in computers; business and people with computers benefited from frictionless communication through a global network of peers.

The metaphor of cyberspace – and its implied digital dualism – lost most of its currency around the turn of the millennium. This was a result of three different yet interrelated developments. First, and in a very broad sense, the initially slow but ever-accelerating diffusion of consumer Information and Communication Technologies (ICTs) and user-friendly interfaces culminated in the widespread use of personal computers with access to the internet. Second, and in a narrower sense, the commodification and adoption of portable ICTs and mobile interfaces – from laptops and hiptops to personal digital assistants and portable phones – reached a critical threshold resulting in what Myerson (2001) once aptly described as the "great mobilization of the year 2000" (p. 6). Third, and in the narrowest sense, the satellite-enabled Global Positioning System opened for non-military purposes allowing for ICT innovations structured around the location of users. Taken together, these developments resulted in the sublation of cyberspace's digital dualism. The increased density, mobility and locativity of computer technologies led to a return of the sense of place and the importance of location in and through the everyday computer-mediated practices of ordinary

users (as opposed to, say, the specialised activities of hackers in their proverbial garages or white-collar workers in their offices). People were increasingly able to reach out to peers and organisations close to them (in the geographical and affective sense), communicate while on the move, or organise information based on their location.

It is interesting to note that, strictly speaking, the notion of hybrid space is not a metaphor. It is a matter of fact; a description based on everyday experience. This change in heuristic device to deal with the presence of computer technologies in our everyday lives signals that they have become familiar up to the point where they have become a normal – if not to say banal – presence in our everyday lives. We do not any longer need to conjure up spatial metaphors to come to terms with the reconfiguration of our social spaces, as we now have an intimate, intuitive understanding of this reconfigured spatiality.

1.2 The Networked Mode of Production

The sublation of cyberspace's digital dualism took place at what the economist Carlotta Perez (2002) described as the tail end of a "period of installation" and at the brink of a "period of deployment" (p. 23-35) (see figure 1.1). I borrow these terms from her groundbreaking work on the specific – or, even, path-dependent – ways in which radical innovations eventually become technological revolutions that shape societies (as much as societies shape radical innovations and technological revolutions). "This process follows a basic sequence", she (2009b) writes:

> Irruption of the revolution, two or three decades of a turbulent installation period ending in a major bubble collapse, then a recomposition of the socio-institutional framework that regulates finance and sets the conditions for the final deployment period, a time of more organic growth that lasts until maturity and exhaustion are reached, setting the stage for the irruption of the next technological revolution (p. 781).

I turn to Perez for two different yet related reasons. First, Perez's periodisation of the current revolution in Information and Communication Technologies supports my main assumption that hybrid space, with its implied ontological convergence of the physical and the digital realm, became the dominant spatiality from the early 2000s onwards. Second, Perez provides, to my knowledge, one of the most sophisticated accounts of the multifaceted way in which modes of production emerge and ultimately become dominant across the various domains of

social life. To be sure, she does not use the notion of a mode of production. Yet her work on technological revolutions and techno-economic paradigms does lend itself to be transcoded into a Marxist lexicon that is more in line with the main preoccupations of my own study into the social production of hybrid space.

1.2.1 Bang, Boom, Burst: Technological Revolutions and Social Change

Perez distinguishes five technological revolutions since the industrial revolution of the late 18th century. Each of these revolutions depended upon a specific "big bang" in a particular time and space initiating a "great surge of development" (2002, p. 7). Such surges result as much in new industries as they "transform profoundly the rest of the economy (and eventually society)" (Perez, 2009a, p. 9). Technological revolutions occur, in other words, on the micro-level ('individual innovations'), the meso-level ('technological systems') and the macro-level ('technological revolutions') of societies (2002; 2009a). So any technological revolution is a nested process that occurs on, and then engulfs and reconfigures, various scales of the social. During such processes, "the profit motive is the propeller", as it always is under capitalism, "[while] the technological style", the new and shared logic regarding investment, research and development, "is the steering mechanism" (Perez, 1983, p. 7).

The fifth and current technological revolution originated from the 1971 launch of the Intel semiconductor in Santa Clara (California, USA) (micro-level), the paradigmatic rise of Silicon Valley (meso-level) and the shift to a 'networked' mode of production across the globe (macro-level). This seems to be a rather moot point. Yet Perez's major contribution to the field is that she has been able to outline the regularities of the trajectories of each consecutive revolution across its various scales. The ways in which radical innovation takes place – and the ensuing mutual shaping of technologies and societies – follows, in other words, a basic pattern. This pattern, or trajectory, can be described, across its various scales, in terms of a logistic curve (see figure 1.1).

On the micro-level of an individual innovation the design process *initially occurs slowly* as various actors – designers and producers, distributors and users – "engage in feedback learning processes", *then rapidly* as soon as a "dominant design" has crystallised, and *finally it once more slows down* as soon as maturity is reached (Perez, 2009b). When Intel launched its mature semi-conductor in 1971, four years after being founded, it capitalised on an innovation process that dated from the 19th century (Braun and MacDonald, 1982) and picked up speed in the late 1960s. Since this launch, semi-conductors have incrementally

become smaller, faster, cheaper and more versatile, yet their basic design has barely changed (see, for instance, de Mul, 2002, p. 14).

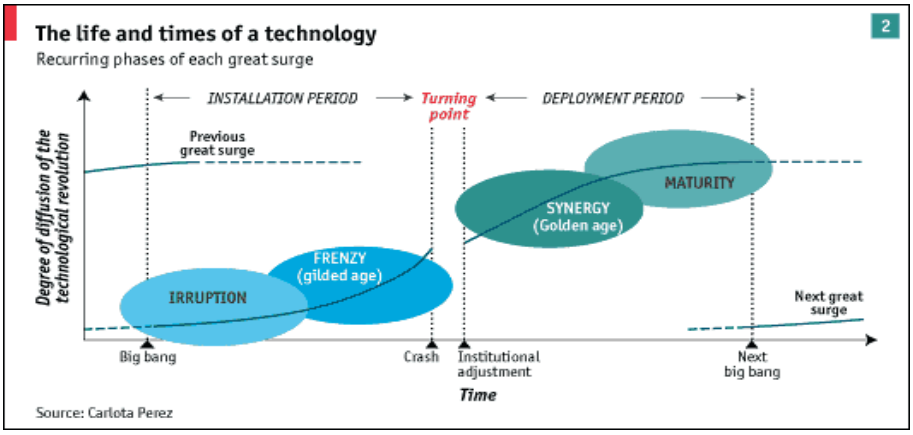

Figure 1.1. Perez' Bell Curve (The Economist, 2003; adapted from Perez, 2002).

On the meso-level of technological systems, the incremental process of innovation results in "successive new products, services and even whole new industries, building upon the innovative space inaugurated by the initial radical innovation" (Perez, 2009b, p. 7). The core industries of each wave emerge as "the result of techno-economic and social interactions between producers and users within complex dynamic networks" – first slowly, then rapidly, and then once more slowly as markets mature and saturate (Perez, 2009b, p. 6). These core industries form a cluster of "motive branches" that produce the "cheap inputs" of the technological revolution, "carrier branches" that produce its "paradigmatic products" and, lastly, "infrastructures" (Perez, 2009b, p. 13). In the case of Silicon Valley, the paradigmatic case of the current wave, the motive branches include companies that produce "semiconductors", the carrier branches include companies that make "computers, software and mobile phones" and the key infrastructure is the internet, alongside digital telecommunication technologies such as "cable, fibre optics, radio and satellite" (idem).

On the macro-level, the initial radical innovation and its associated technological system constitute a technological revolution that shapes the other sectors of the economy and the wider domains of social life (see especially Perez, 2002 and 2009b). We have previously seen that this process follows a basic sequence of a period of instalment, a bursting bubble and a period of deployment. Both periods usually last 20–30 years. So, in the case of the current ICT revolution, the 'period of installation' starts in the early 1970s, ends with the

collapse of the dotcom bubble between 1999 and 2001, and the 'period of deployment' starts in the early 2000s and is still ongoing. Let's look more closely at the characteristics of each period.

During a period of instalment, Perez (2009b) writes,

> financial capital abandons its old clients and joins the new entrepreneurs, giving strong support to technologies that had been in gestation for years but limited by the prevailing paradigm. The financial success of this process leads to the MTB, which not only intensifies the full experimentation with the new technologies and the modernisation of most industries, but also fosters over-investment in the new infrastructures. These usually need to reach full coverage to be effective and thus require high up-front investment (p. 789).

The period of instalment is, in other words, characterised by frenzied economic activity related to (1) the installation of new infrastructures (say, internet access), (2) the creation of mass markets for goods and services in line with the technological revolution (i.e. diffusion of hardware and software), (3) the flow of finance capital to the core industries of the associated technological system (resulting in the bubble), (4) the pressure of finance capital on traditional businesses to adapt to the profit-generating opportunities of the technological revolution, and (5) the adaptation of traditional business to the possibilities and constraints of the new opportunity space. So it is for this reason – the ability of finance capital to mobilise and mould in its own image the real economy – that the period of instalment has most of its impact in the economic spheres of exchange, cooperation and organisation.

During a 'period of deployment', which starts after the financial bubble has burst, the emphasis shifts from diffusing technologies and reconfiguring business to finding uses for the by now omnipresent technology in extra-economic spheres of exchange, cooperation and organisation. "The capitalist system", Perez argues (2001),

> can be seen as a single very complex structure, the subsystems of which have different rates of change. For the sake of simplicity we can assume two main subsystems: on the one hand a technoeconomic, and on the other a social and institutional, the first having a much faster rate of response than the second (p. 2).

So it mostly is in the period of deployment that the reconfiguration of the social and

institutional subsystems (culture included) takes place (2001, p. 2). This occurs through the becoming dominant of a "shared logic" or "common sense" for both "investment decisions" and "consumer choices" (2009, p. 14). This ultimately shapes new patterns of doing and thinking in everyday life. In the case of the ICT revolution we can illustrate this by looking into the shift in popularity – post-dotcom boom – from Web 1.0 to Web 2.0 services (and business models) (see, especially, Slot and Frissen, 2009).

1.2.2 The Shared Logic of Web 2.0

The term 'Web 2.0' was coined in 1999 by tech consultant Darcy DiNucci to describe a set of developments, still in an embryonic stage, that began to reconfigure a world wide web that by then still largely consisted of relatively static, desktop-bound pages or sites – "screenfulls", she called it (1999). She wrote:

> The Web we know now, which loads into a browser window in essentially static screenfulls, is only an embryo of the Web to come. The first glimmerings of Web 2.0 are beginning to appear [...]. The Web will be understood not as screenfulls of text and graphics but as [...] the ether through which interactivity happens. It will [...] appear on your computer screen, [...] on your TV set [...] your car dashboard [...] your cell phone [...] hand-held game machines [...] maybe even your microwave oven.

She anticipated a web that would be distributed across devices (say, portable phones) and embedded in objects (cars, for instance) as much as it would be interactive. It proved to be a prescient prediction. In 2005, the term was popularised along similar (if not the same) lines by the entrepreneur-cum-publisher Tim O'Reilly to "restore confidence in an industry that had lost its way after the dotcom bust" (O'Reilly, 2005a; O'Reilly and Battelle, 2009, p.1). It can therefore be seen as a deliberate attempt to attune investors to an already emerging 'common sense' about the economic opportunities and social affordances of internet-based web platforms and to shape the 'shared logic' of investment decisions, business strategies and user practices. 'Web 2.0', in other words, indicated not so much a radical break with an older version of the world wide web. It merely highlighted already existing, yet relatively marginal, business strategies and social practices (Fuchs, 2014, p. 34). In doing so, O'Reilly, and others, tried to kick-start 'Silicon Valley' into a once-more profitable direction; better aligned with and better suited for – and this is crucial – the newly emerging use patterns enabled by a completed installation period (see also Baym and boyd, 2012, p. 321). For O'Reilly (2005b),

> Web 2.0 is the network as platform, spanning all connected devices. Web 2.0 applications are those that make the most of the intrinsic advantages of the platform: delivering software as a continually updated service that gets better the more people use it, consuming and remixing data from multiple sources, including individual users; while providing their own data and services in a form that allows remixing by others, creating network effects through an "architecture of participation", and going beyond the page metaphor.

This description, steeped as it is in the lingo of the tech industry, deserves some unpacking.

First, 'Web 2.0' entailed a shift to ordinary users, who are most often amateurs (or start out as amateurs), being able to generate and/or upload content rather than being passive end-users who merely read or see or hear content produced by professionals. We can observe this practice on blogs (Tumblr) and micro-blogs (Twitter), wikis (Wikipedia) and sharing platforms (YouTube; Flickr), social networking sites (Facebook) and web forums (Reddit; 4chan) and, even – and perhaps counter-intuitively – search engines (Google).

Second, 'Web 2.0' entailed a shift from a web that mostly consisted of 'pages' to a platform-based web. The 'Web 1.0'-metaphor of a page implies an individual reading exercise and, by extension, relatively passive end-users of a mass medium. The metaphor of a platform has the connotation of a place where people come together to share, socialise or collaborate. So the former denotes mass media; the latter denotes social media (see also Van den Boomen, 2014, pp. 163–164). This shift from a Web 1.0 structured around a mass media model to a Web 2.0 structured around a social media model can be described as a shift from 'one-to-many' communication to 'many-to-many' communication (Bauwens, 2005) or 'self-mass communication' (Castells, 2009).

Third, 'Web 2.0' entailed a shift from webpages on 'sites' that could be visited by all to personalised interfaces based on a constant 'remixing' of data. "Web 2.0 is databased", as Van den Boomen (2014, p. 163) aptly put it. Web 2.0 is not so much a form with a relatively stable content as it is a personalised content – following from the "recombination and manipulation of data" (De Mul, 2009, p. 99) – with a relatively stable form (that is nonetheless always in 'beta').

Fourth, 'Web 2.0' entailed an emphasis on interoperability. This implies (1) the ability to access any platform through most operating systems and web browsers and across devices and (2) the possibility to use data, embed links or view content from one platform (say,

YouTube) on another platform (Facebook, for instance). "As a result of the interconnection of platforms", media theorist José van Dijck (2013) therefore argues, "a new infrastructure emerged: an *ecosystem* of connected media with a few large and many small players" (p. 4).

In a relatively short time span, in sum, the platforms that together constitute Web 2.0 have become a dominant presence in everyday life. This social media ecology is characterised by a 'shared logic' of investors, companies and users that had been a marginal presence throughout the 1990s and established itself as common sense after the collapse of the dotcom bubble at the turn of the millennium (Perez, 2002 and 2009b; Slot and Frissen, 2009). This shared logic is constituted by, and constitutes, a relatively seamless mesh of devices and platforms that are easy to use, and facilitate, through various publishing models, the dissemination of text, symbols, audio, images and video, and hence enable, through interactions with and via interfaces, new forms of sociality, such as computer-mediated sharing, communicating, and cooperating (Shirky, 2008; Baym, 2011; Lovink, 2011, p. 5; Gauntlett, 2011, pp. 3–6; Terranova and Donovan, 2013, p. 297). In the deployment period, the web as a result became "a robust platform for a culture-changing generation of computer applications and services", as O'Reilly (2005a) once put it.

1.3 Networked Individualism

The main characteristic of the networked mode of production, its shared logic of Web 2.0 applications and services, and by extension, hybrid space, has been described by Rainie and Wellman of the influential liberal policy institute the Pew Research Centre as "networked individualism" (2012). This notion is ideologically charged (alongside being a sociological analysis) and may even be seen as the overarching and dominant – or commonsensical – representation of the imaginary relationship of social actors to today's mode of production (to use an Althusserian formulation). It describes changing behavioural patterns as much as it prescribes desired ways of doing and thinking in hybrid space. This becomes clear towards the end of their book when their analysis culminates in some kind of self-help guide for disconnected individuals in dire need of networking skills in the form of an extensive list with advice on how to "thrive as a networked individual" ("act as autonomous agents to cultivate your personal networks" or "monitor and manage your reputation – your personal brand" and so on and so forth) (2012, pp. 262–272).

To flesh out the commonsensical notion of networked individualism I think it is useful to discuss three different yet related ideological constructs along the lines of the Lefebvrean spatial triad. Hybrid space is shot through with ideological constructs that together constitute

the ideology of networked individualism. Hybrid space, in other words, should be conceived as the mediating institution between today's social actors and today's privileged form of subjectivity: the networked individual. It sets the inner pressures and outer limits on "the capacity of a social actor to become a subject", as Castells (2012, p. 231) once phrased it. I first argue, using the work of Rainie and Wellman, that the dominant ideological construct concerning our spatial practices and social interactions can be best described as "the networked operating system" (Rainie and Wellman, 2012). I then argue that the dominant spatial representation of hybrid space should be seen in the light of the 'post-privacy' discourse emanating from Silicon Valley. Finally, setting out from the idea that mobile interfaces are "always on/always on you" (Turkle, 2008), I argue that hybrid space is characterised by a novel "structure of experience" (to borrow Walter Benjamin's (2015 [1939], p. 156) phrase) that can perhaps be best described as post-boredom.

1.3.1 A New Common Sense (1): The Networked Operating System

Rainie and Wellman's work on "the new social operating system of networked individualism" (2012, p. 3) is so useful because it highlights that today's mode of production (1) encompasses a very specific form of cooperation across social life (and hence encompasses not only economic activities), and (2) produces and reproduces a very specific way of life (i.e. networked individualism). Let's pick out and unpick each of these aspects.

First, Rainie and Wellman argue that a new 'networked social operating system' has reconfigured the ways in which people cooperate – i.e. relate to, and interact with, each other and the social world – in everyday life. "The phrase", they (2012) write

> underlines the fact that societies – like computer systems – have networked structures that provide opportunities and constraints, rules and procedures […]. The phrase echoes the reality of today's technology: Most people play and work using computers and mobile devices that run on operating systems. Like most computer operating systems and all mobile systems, the social network operating system is *personal* – the individual is at the autonomous center just as she is reaching out from her computer; *multiuser* – people are interacting with numerous diverse others; *multitasking* – people are doing several things; and *multithreaded* – they are doing them more or less simultaneously (p. 7).

This entails that our social interactions and spatial practices are socially structured in, and

through, dynamic, heterogeneous, multi-functional and overlapping networks of which we ourselves are the central node. We are – and act, feel and think as – nodes in networks (or are, at the very least, supposed to be a networked node) with the capacity to reconfigure hybrid space around our interests, needs and desires.

Second, and this is the main tenet of their argument, the networked operating system, as a social structure, produces and reproduces subjects that bear, embody and live their social relations as networked individuals. "This", Rainie and Wellman (2012) argue,

> is an operating system that confers social and economic advantages to those who behave effectively as networked individuals, blending significant personal encounters and new media as they solve problems and build social support. […] [T]he social shift toward networked individuals changes the rules of the game – the operating system – for social, economic, and personal success. Abundant evidence shows that good, strong social networks of all kinds have important benefits (p. 256).

The notion of networked individuals can be seen as the neoliberal update of the liberal individual and the dominant representation of today's social relations, as they are lived, in the network society – a preferred way of life in "the era of free agents and the spirit of personal agency" (Rainie and Wellman, 2012, p. 19). Four aspects stand out in the above citations. First, they emphasise that it is one's personal responsibility to create and maintain beneficial social networks by blending face-to-face encounters and a social media presence. Second, these social networks – friends with benefits, as it were – should be relied on to solve personal needs or societal problems. Third, these social networks function entirely within the economic and social spheres of daily life. Fourth, these social networks are supposed to bring social and economic advantages. The state, as well as its institutions aimed at the public good, such as public space, is conspicuously absent, here.

1.3.2 A New Common Sense (2): Post-Privacy

The emergence of hybrid space, and the becoming dominant of its associated social operating system, inaugurated, too, a new phase in the digitisation of what used to be our personal spheres. Through our usage of social, mobile and locative media platforms and applications, users – wittingly and unwittingly – hand over massive amounts of their personal data to companies such as Google and Facebook. These companies then aggregate, analyse and manipulate these data for profit; usually by selling individual and/or collective user

profiles to advertising agencies for targeted advertising. Many commentators agree that this has culminated in the end of privacy (see, for instance, Rubenfeld, 2008); an end that came not with a bang but with an occasional whimper and a collective shrug of our shoulders (or so it seems).

In modern times, the notion of privacy indicates the right of citizens to keep certain domains of everyday life out of the line of sight, and the sphere of influence, of the state and the market, and/or the capacity to control which aspects of one's personal sphere are disclosed to third parties (see Allmer, 2015, pp. 57–74 for an excellent critical review of the literature on privacy). This entails, practically, that state institutions and market parties need to be very reluctant with, and abide to certain regulations when, gathering, storing and using personal data of citizens and consumers, and/or the latter need to give some kind of (implicit or explicit) form of permission. Still, we have seen that many domains of our personal space have become thoroughly digitised and surveilled. Below I focus on three different yet related domains of our personal space in order to outline the various ways in which our privacy has been eroded by the use of computer technologies: the informational, relational and spatial domains (see, also, Van den Akker, 2012). Although these domains have been threatened by digital privacy intrusions ever since the dawn of today's mode of production, they have not been rendered transparent in equal measure over the course of its development. In fact, each of these domains corresponds to a specific phase in which the diffusion of ICTs reached a critical threshold and, hence, a new domain of our personal spaces got digitised. I proffer that – subsequently and predominantly – the installation period resulted in digital intrusions of our informational privacy, the turn-of-the-millennium boom and bust resulted in intrusions of our relational privacy, and the deployment period resulted in intrusions of our spatial privacy. Let me explain.

During the installation period the privacy discourse is predominantly preoccupied by the informational domain of our personal spheres. Informational privacy, here, refers to one's level of control over, or protection from, the new 'digital' ways in which personal data – such as ID numbers, bank account numbers, passwords, etc. – are obtained, stored, and used. This fear originated in the new capacities of government agencies, financial institutions, and large corporations to create increasingly large databases with such data and automate their work processes (see, for instance, Kang, 1999). Over the years, and with the increasing diffusion of computer technologies in our everyday lives, the central focus of the privacy discourse shifted towards the relational domain of our personal spheres. Relational privacy means, here, the level of control over, or protection from, the new 'digital' ways in which data related to one's

personal relationships with, and preferences for, goods, persons and organisations are obtained, stored, and used. Such data can be obtained by surveilling (through cookies, for instance) email correspondence, surfing behaviour or social media usage (see, for instance, Klaver, 2010). Due to the proliferation of portable and mobile ICTs, as well as the embedding of computer technologies in our physical environment, the privacy discourse most recently shifted towards the spatial domain of our personal spheres (see, for instance, Cuijpers, 2007; Van 't Hof et al, 2010). Spatial privacy can be defined, here, as the level of control over, or protection from, the new 'digital' ways in which data related to one's geographical position and mobility patterns are obtained, stored, and used. The RFID-chips in our electronic public transport tickets and the GPS functionality in our smartphones may very well be the most visible examples of the increasing digitisation of the spatial domains of our personal spheres. Yet there are many more ways in which so-called 'smart' phones, 'smart' objects and 'smart' environments are able to track, trace and map our every movement *in* hybrid space (rather than *on* the net).

Taken together, the digitisation of these three domains of our personal spheres resulted in a situation in which the networked individual has become transparent (see, for instance, Frissen, et al., 2011). Over the span of several decades, and especially since the turn of the millennium, we have seen the emergence of new norms concerning privacy and transparency. As Van Dijck (2014) rightly argues,

> The norms for "sharing" private information and for accepting personalised advertisements in someone's social space were very different in 2004, in the early stages of Web 2.0 space, than in 2012. Changes were implemented gradually, and while users got habituated to new features, the norms for privacy and monetization were stretched accordingly (p. 19).

The current privacy norms have in other words materialised as a result of two different, yet interrelated, forms of ideological work.

On the one hand, the various commercial platform owners incrementally introduced new software features and terms of use that provided them with ever more liberty to surveille on their users. Hoofnagle provides a simple yet elegant example. "Users", he (2012) writes, "could be left with the choice to identify themselves as they please, but Facebook and Google realize that with true names […] they can leverage them into more effective advertising platforms" (p. 22). Sometimes users protested against these changes (with more or less

success); other times they got implemented without a fuss. Yet every change, no matter how significant or insignificant, stretched the parameters of what we, users, consider to be an acceptable usage of surveillance and profiling technologies on the platforms and applications that have become such an integral part of our everyday lives.

On the other hand, the various mouthpieces of Silicon Valley (such as CEOs, PR managers and media pundits) also played a – subtle and not so subtle – role in this normalisation process. According to "the social media world", Hoofnagle (2012) observes,

> we now live in a post-privacy world that recognizes that controls on personal information flows are unnecessary and even a hindrance to human freedom. Thus, imposing privacy rules on businesses is […] unnecessary because the world is becoming a more open place (p. 19).

A case in point: *Wired* magazine once published a piece by Nova Spivack, author-cum-guru-cum-investor (a rather rewarding combination of hats; basically allowing one to talk up the future value of one's own business stakes in wider socio-technological trends), in which he argued that the era of "post-privacy" is both inevitable and just, while dismissing any sort of legitimate critique as "negative hype" (Spivack, 2013).

It has been through habituation and legitimisation, in sum, that we have seen the quick death of privacy. Although both state actors and market parties have extended their grasp over our personal spheres through surveillance technologies (the first as a response to the so-called "fourth wave of terrorism" (Rapoport, 2004); the second in response to the business opportunities afforded by the shared logic of Web 2.0), the general public's main concern seems to lie with the abuse of surveillance technologies by state actors. It is in this climate, for instance, that Apple can claim to be a safeguard against state surveillance by not complying with state agencies wanting to 'hack' a suspect's iPhone in the aftermath of the so-called *San Bernardino Shooting* in 2015, while, simultaneously, collecting location and user data from each and every iPhone that has ever been sold without asking for the consumer's permission. This – i.e. Apple as a champion of our privacy – is beyond irony. In fact, it speaks to a historical moment in which post-privacy norms dictate that we should be suspicious of government surveillance while we should embrace commercial surveillance.

This, to me, can be seen as a neoliberal update of the traditional liberal notion of privacy that emerged across western societies after the Enlightenment (Schinkel, 2011). In liberalism privacy is a social relation borne by a rational, self-interested individual (Fuchs,

2014, 156–158). "Liberalism", Raban (2012) for instance writes,

> requires that any state regulation of the private sphere be justified either as (1) creating a free personal sphere where individuals pursue their personal well- being free from coercion by others, (2) correcting for a cognitive malfunction that distorts individuals' ability to pursue their own personal well-being, or (3) advancing an interest other than personal well-being – like economic efficiency or national security, but excluding mere ethics or morality – that takes priority in that particular context.

Privacy here is defined as a protective shell, created by the state, that limits interference in the personal sphere so as to provide individuals the freedom to act in accordance with their own well-being. Within this liberal view on privacy it is perfectly possible to make a case for government surveillance (i.e. the national interest) and against commercial surveillance. Social media corporations, however, abuse this liberal view to argue the exact opposite (Hoofnagle, 2012; Fuchs, 2012). By claiming that the imposition of privacy regulations is a violation of their privacy as a corporate entity, they advance a neoliberal post-privacy ideology in which, simply put, government surveillance is bad and corporate surveillance is good (or goes without saying). Another way of saying all of this is that the opaque personal sphere of the individual, the bedrock of liberalism, gave way to the transparent personal sphere of the networked individual under neoliberalism.

The result is that our every move across hybrid space can be tracked and traced by software companies. "We", Google CEO Eric Schmidt once said without bragging, "know where you are. We know where you have been. We can more or less know what you're thinking about" (Saint, 2010). As a result, social space tends towards full transparency.

1.3.3 A New Common Sense (3): Post-Boredom as Structure of Experience

"Today", the media theorist Sherry Turkle (2008) once argued,

> the near-ubiquity of handheld and palm-sized computing and cellular technologies that enable voice communication, text-messaging, e-mail, and web access have made connectivity a commonplace. […] We are tethered to our "always-on/always-on-us" communication devices and the people and things we reach through them (pp. 121–122).

We can't switch off and leave; we are always already in hybrid space. This inevitably affects the way in which we experience – or directly live – the physical and social environment that is representational space. It results, to use a phrase coined by Walther Benjamin in the context of his analysis of city life, in a change in the "structure of experience" (2015 [1939], p. 156), a notion intended to convey that there are structural aspects – a certain logic, even – to our experience of the world in a specific time and place or, more broadly, a given period (while maintaining that each and everyone experiences the world in their own unique manner). Since we are dealing with a historically new social space corresponding to a historically new mode of production, we are, too, dealing with a new structure of experience. One of the ambitions of this dissertation is to unearth the structural aspects of experiencing – living – hybrid space. For now, it suffices – using Turkle's essay 'The Tethered Self' (2008) to highlight three aspects of the structure of experience of hybrid space – as some kind of building block or starting point for further inquiry.

First, Turkle (2008) observes that our mobile interfaces enable immediate access to "*connections that matter to us"* (p. 122; my italics), personally. Recall that Rainie and Wellman also claimed that the networked social operating system enables users to be, and see themselves as, the central node of hybrid space. Mobile interfaces enable, then, a constant personalisation of, and instant gratification in, an otherwise seemingly uninteresting physical and social environment by, say texting a friend or watching a vlog while taking the train. In such a situation, the physical and social environment does not matter (enough) but what *does* matter to *you* is constantly and readily available (see Turkle, 2008, pp. 122–124).

Second, Turkle (2008) observes that mobile interfaces enable you 'to do *more things*' (pp. 129–130) – with colleagues, friends, and family or during leisure time – in less time and more places. This erases "down time" and enables killing time (2008, p. 129). The time spent on the train is not used for daydreaming or resting; it is used for, say, answering emails or reading messages (the multi-user, multi-tasking, multi-threaded aspects of the networked social operating system). "This takes", Turkle (2008) argues, "time from other activities (particularly those that demand undivided attention), it adds new tasks that take up time (keeping up with email and messages), and adds a new kind of time to the day, the time of attention sharing, sometimes referred to as 'continuous partial attention'" (p. 129) or, rather, as I prefer, permanent distraction.

Third, Turkle observes that our mobile interfaces enable "*new forms of validation*" (2008, p. 127). Mobile interfaces enable a constant validation of one's thoughts and feelings, which can be formulated as "I have a feeling/get me a friend" or "I want to have a feeling/get

me a friend" (2008, p. 127). Turkle uses the example of the "cell-phone check-in", yet the more contemporary dynamic on social media platforms comes immediately to mind. In this dynamic you either share your thoughts and feelings on, say, Facebook, where they are to be validated by 'likes' of 'Facebook friends' (the 'I have a feeling/get me a friend'-logic) or you scroll your 'newsfeed' (the aggregate of posts that according to Facebook's algorithms *matter* most to you) because you want to see what has been posted by your 'Facebook friends' (the 'I want to have a feeling/get me a friend'-logic).

Hybrid space, in sum, provides the conditions for a social situation in which the environment affords instant gratifications, time is filled with constant distractions and social relations are used to validate one's thought and feelings, if not existence. For me, these symptoms point to a structure of experience that could be described, for now, as 'post-boredom', a state in which we continuously displace boredom to the extent that it evolves into an experience of restlessness (see, for instance, also Morozov's (2013) essay on boredom and social media).

Let me illustrate this with an analysis of an advertisement video for Vodafone from 2007 (see also Van den Akker and Prins, 2008). Vodafone was then, at the cusp of the big break-through of the smartphone with the launch of the first generation of Apple's iPhone, the largest provider of mobile internet. It had, in other words, a big stake in framing the preferred ways of using mobile interfaces. The video starts with a series of shots that cut from a man at a bus stop in an empty and remote landscape, a woman waiting for a train during rush hour, a man in his car in a traffic jam, a woman in the bus. They are bored with their environments; they have down time. Then, it starts to rain – first lightly; then heavily. Crucially, however, it rains parts of clocks and other time-keeping devices: keys, pendulums, dials, hands, weights, verges, suspension springs, bells, even whole watches. The clip instantly reminds us of Heidegger's analysis of boredom (2001 [1929-1930]). While being bored, he argued, our temporal horizon (past-present-future) shatters, a characteristic that can be observed across the three dimensions of boredom: 'becoming bored by something', 'being bored with something', and 'profound boredom' (Slaby, 2010, p. 102; see also Prins, 2006). When *bored by something*, *Dasein* (or a 'being-there') attempts to chase boredom because the environment appears to be empty and time seems to slow down; when *bored with something* the environment appears to be full and time seems to be an extended now; and when experiencing *profound boredom* the environment appears to be empty and time has halted because everything seems to be equally insignificant. As Slaby explains, "these three varieties of boredom reveal a skein of relations between the temporality of human existence and what one

could call 'existential significance' (*mattering*)" (2010, p. 102). Although this brief description doesn't do justice to Heidegger's detailed analyses of the mood, it does show that across these dimensions of boredom the environment appears to be devoid of anything that matters and time seems to be an endless now in a shattered temporal horizon. When attuned to boredom, in other words, *Dasein* experiences a void that needs to be filled. Of course, Vodafone provides a solution to this existential problem. Although all of the aforementioned characters first hide themselves from the rain (read: the shattered temporal horizon), the mood across our imaginary town quickly shifts to euphoria. Now that Vodafone provides mobile internet, you can – any time, any place – chase boredom, kill time, and fill the void with things or people that matter to you. Time no longer needs to dawdle or halt because, as the accompanying print ad claims, we can *now* play everywhere ("When life pauses, you can still play"). The overall and general slogan of the massive ad campaign hence was: "Make the most of now" (see Van den Akker and Prins, 2008).

The advertising campaign neatly illustrates that mobile interfaces enable the endless postponement of boredom to the extent that it evolves into a restless state of being. As Myerson (2001) observed in *Heidegger, Habermas and the Mobile Phone* this restless state of being is regulated by the "principle of want" (pp. 25). Mobile interfaces are intended, in other words, to channel desire into *whatever* you want – or better: whatever you *can* want because of this or that software application – *wherever* and *whenever* you want it (Myerson, 2001, pp. 25–27). The structure of experience of hybrid space can therefore perhaps be best described as *post-boredom*.

1.5 Openings and conclusions

In this chapter I set out from the mainstream narratives regarding the technological history of hybrid space as well as the 1970s technological revolution at its origin. I showed, by way of Perez' analysis of the fifth great surge of development and the rise of the so-called networked mode of production, that hybrid space, alongside its shared logic of web 2.0, became a dominant spatial and cultural form around the turn of the millennium.

I then outlined the main ideological construct of the networked mode of production and the hybrid space it secrets – i.e. networked individualism as a way of life – by analysing three commonsensical notions along the axes of the Lefebvrean spatial triad. I argued that today's dominant representation of our social relations and spatial practices is that our everyday lives take place in a networked operating system among networked individuals (with an emphasis on the need for networking skills for the good life). I also showed that

Silicon Valley's post-privacy discourse results in the dominant conception of hybrid space as a space inhabited and used by fully transparent networked individuals (with nothing to hide from corporations). I then argued that the commonsensical notion that smartphones are –and should be – 'always-on/always-on-us' results in a structure of experience that could be described as post-boredom. Taken together, in other words, networked individualism produces, by means of the ideological constructs of the networked operating system, post-privacy, and post-boredom, subjects that are networked, transparent and restless individuals.

In the following chapter, I use these mainstream narratives and common sense notions to inform a critical – and dialectical – analysis of the social production of hybrid space. I do so, by focusing on the 1960s urban revolution (rather than the 1970s technological bang), outlining the emergence of what I believe is more appropriately described as the urban mode of production, and re-evaluating the networked individualism (as well as the networked operating system, post-privacy and post-boredom) in, and of hybrid space in the light of these findings.

CHAPTER 2
THE URBAN MODE OF PRODUCTION
The Urban Revolution Revisited

> If there is production of the city, and social relations in the city, it is a production and a reproduction of human beings by human beings, rather than a production of objects.
>
> – H. Lefebvre, 2006 [1968], p. 101

> The metropolis is to the multitude what the factory was to the industrial working class.
>
> – M. Hardt and A. Negri, 2009, p. 250

> To put it succinctly: the seam is to be found between the opportunism at work and the universal opportunism demanded by the urban experience.
>
> – P. Virno, 2004, p. 106

2.0 Introduction

One of the most prevalent *doxa* in the debate about the nature of hybrid space is that it is socially produced *with* and *through* the use of mobile interfaces and only *if* and *when* users open this or that smartphone application. "Hybrid spaces", de Souza e Silva for instance writes in *From Cyber to Hybrid: Mobile Technologies as Interfaces of Hybrid Spaces* (2006),

> arise when virtual communities […], previously enacted in what was conceptualized as cyberspace, migrate to physical spaces because of the use of mobile technologies as interfaces.

This common sense assumption underlies many, if not most, of the writings on hybrid space, including work by the field's most interesting and influential authors, such as De Souza e Silva (2006), De Souza e Silva and Frith (2012), Farman (2012), and Frith (2015). Farman's Lefebvrean (yet purely phenomenological) approach in *Mobile Interface Theory: Embodied Space and Locative Media* (2012) is a major case in point. "As I will argue throughout this book", he (2012) writes,

> space needs to be considered as something that is *produced* through use. It exists as we interact with it – and those interactions dramatically change the essential character of space (p. 18).

Judging from the above citation and the proceeding case studies (ranging from mobile mapping to locative games to site-specific storytelling), Farman focuses his attention on the very situation in which embodied physical space dramatically changes into embodied hybrid space by means of a mobile interface. He (2012) acknowledges, to be sure, that "bodies produce spaces and spaces produce bodies" (p. 19), yet his analyses set out – and cannot but begin – from the dramatic instance in which what could be described as a *deus ex interface* appears onstage.

The narrative device of a *deus ex interface* is widely used in the debate on the social production of hybrid space. It is for instance mirrored in the numerous studies that include an origin story based on the emergence of the technological conditions of hybrid space around the turn of the millennium (i.e. proliferated mobile interfaces and unscrambled GPS signals). Now, the use of this narrative device is neither necessarily wrong nor necessarily right (such is the commonsensical nature of *doxa*). It is rooted in concrete and lived experience. In subsequent chapters, to be sure, I also analyse the social production of hybrid space along the lines of case studies into several mobile and locative interfaces. Yet we need to be aware that this theoretical framework may very well become a methodological trap that fixates hybrid space as a contemporary object of study and obscures the fact that hybrid space is intimately related to the emergence of a specific social formation. It obscures, in other words, that the social production of any social space, including hybrid space, should be considered as a "process" – with not only a present but also a history (and, even, a possible future and future possibilities, a potentiality) (see Lefebvre, 1991 [1974], p. 36-37).

In what follows, I argue that that the social production of hybrid space should be conceptualised in conjunction with today's mode of production and in relation to its emergence in what could be periodised as the '1960s' (see Jameson, 1984). Technological developments, in particular the availability and usability of relatively cheap mobile interfaces, were pivotal, no doubt, in the emergence of hybrid space. Such factors, however, are a necessary but not sufficient condition to explain the emergence of actually existing hybrid space. Smartphones are social artefacts that are functions of, and function within, a web of historically determined social relations. So our analysis should begin with precisely these historically determined social relations. "Always historicize" (Jameson, 1981, p. 9).

In section 2.1, 'The Urban Revolution Revisited: A Brief Social History', I revisit Lefebvre's thesis on the urban revolution from the vantage point of contemporary hybrid space. In *The Urban Revolution* (2006 [1970]) Lefebvre attempted to come to terms with the 1960s transition from industrial societies to what he described – in an inspired move – as urban societies. Lefebvre's intuitions, to be sure, did not pertain to the shift from *modern* geographies, scales and spaces to – what later came to be known as – *postmodern* ones (though the shift from a modern to a postmodern structure of feeling did take place around that time, as the likes of Soja, Harvey and Jameson have correctly argued). Instead, he understood that western societies were in the midst of a more profound revolution, similar in impact to the industrial revolution of the second half of the 18th century that upended agrarian societies. By revisiting Lefebvre's thesis on the urban revolution in particular and the 1960s in general from the vantage point of the 2000s – "studying history backward" (Ollman, 2003, p. 115), as it were – we get a clearer view on the conditions related to the emergence of hybrid space.

In section 2.2, 'The Urban Mode of Production', we shift perspective from Perez's economic and financial analysis of the emergence of the networked mode of production to an analysis of the emergence of the urban mode of production from the perspective of labour. In doing so, we, as Marx (1976 [1867]) put it, descend from the "noisy sphere" of social interaction and economic exchange "where everything takes place on the surface and in view of all men" into "the hidden abode of production", where the labourer "is bringing his own hide to market and has nothing to expect but – a tanning" (p. 279–280). I outline three structural changes in the 'technical composition of labour' (How is production organised? What is produced? Who produces?) that are associated with the shift from an industrial mode of production to an urban mode of production. This shift ultimately entails that (1) the city rather than the factory has become both the locus and the engine of production, and that (2) the focus of production has shifted from objects on assembly lines to subjects in networks (Lefebvre, 2003, p. 47; 2006 [1968], p. 101; Hardt and Negri, 2009, pp. 249–260). Crucially, these new properties of labour are cultivated by exposure to the common forms of wealth embedded within cities and furthered by the unpredictable encounter with heterogeneity that is part and parcel of the urban experience.

In section 2.3, 'Making the Passage', I chart two trajectories – one indirect; the other direct – that have been crucial for the passage from an industrial mode of production to an urban mode of production and the social production of hybrid space. The first indirect

trajectory takes us from the countercultural movements of the '1960s' to the subsequent incorporation of their aspirations within political economic forms of control and neoliberal forms of governmentality. The second trajectory zooms in on '1960s California' and the convergence of computer technologies, cybernetic theories and countercultural aspirations in the proceeding decades; a process that culminates in what could be described as the Californian Ideology and its associated forms of algorithmic governmentality. I argue that today's interfaces, including mobile internet platforms and smartphone applications, can indeed be conceived of as "ideological apparatuses" (Althusser, 1971 [1970]), but must also be seen as "apparatuses of control" (Weiner, 1985 [1948], p. 74). As an apparatus, the smartphone reproduces the social relations in and of the hybrid spaces of contemporary urban societies. The interface interpellates; the algorithm modulates.

In section 2.4, 'Networked Dividuals', I revisit the previous chapter's commensensical description of hybrid space by analysing its dominant operating system, spatial representation, and structure of experience in the light of this chapter's findings. I argue that networked individualism, as the dominant and overarching representation of today's social relations, can better be described as networked dividualism, an amalgam of networked bodies and algorithmically sorted dividuals. I argue that this networked dividualism can be analysed along the lines of the *urban* (rather than the networked) operating system, software-sorted space (rather than transparent space), and manic restlessness (rather than post-boredom).

I demonstrate that the urban mode of production and, by extension, the urban operating system is characterised by a double production of social relations, space and subjects. This double production stems from, and results in, two seemingly contradictory yet fully compatible logics that intertwine the 'for benefit' logic of common associations and the 'for profit' logic of market associations, while maintaining an ideological blockage concerning the public logic of the state. I then argue that hybrid space should be conceived of as a "differential" or "software-sorted" space (Graham, 2005, p. 563; de Souza e Silva and Frith, 2010, p. 498; Gordon and de Souza e Silva, 2011, pp. 148–149). I end this chapter by analysing the structure of experience of hybrid space. By situating Turkle's arguments about 'always-on/always-on-you' devices within Heidegger's phenomenology of everydayness, and revisiting both Turkle and Heidegger from the standpoint of Virno's (2004) analysis of the "emotional situation" of the multitude, I argue that the dominant structure of experience of hybrid space could be described as manic restlessness (a notion that is both positive and negative all at once).

2.1 The Urban Revolution Revisited: A Brief Social History

Lefebvre's thesis on the transition from an industrial society to an urban society rests on two different tendencies that can both be conceived as a response to that 1960s moment in which industrial capitalism "runs out of steam" (Lefebvre, 2006 [1970], p. 155). "The urban", he writes, "becomes the sum for agricultural products and industrial products, capital and labour, *lodging and development*, as well as *the market for works of art and the intellect, signs and symbols*" (2006 [1970], p. 47, my italics).

The first tendency, then, consists of the real subsumption of space under capital and the increased importance of the "buying and selling of space itself" to capital accumulation (2006 [1970], p. 155) – or, in other words, the appropriation and commodification of social space by means of land speculation, property development and real estate investments. "One of the current contradictions", he (1987) argued,

> which didn't exist in Marx's time, but which has emerged recently, is the ability to handle vast spaces, for example, that of […] a country, or even larger – the Chinese are dealing with a gigantic space – and, on the other hand, to sell space in small quantities in miniscule plots. There is thus this contradiction which is a spatial contradiction; and that is quite new (pp. 30–31).

There can be no doubt that ever since the enclosure of the commons in the 18th century, social space has increasingly been incorporated within the logic of capital up to the point where every nook and cranny has been commoditised (and hybrid space and mobile and locative media represent the latest frontier of the valorisation of social space under capitalism, as we will see throughout this book). Yet it is questionable whether the 1960s constitute a qualitative break – or fault line – within this *longue durée* of capitalism, as Castells (1977 [1972]) and Harvey (1973) argued in their highly influential critiques of Lefebvre.

The second tendency consists of the increased prevalence of communicative, cognitive and affective forms of labour (which Lefebvre clumsily phrased as the "markets of art and intellect, signs and symbols"). This tendency, I proffer, *is* a qualitative break (and one that has received little to no attention in the critical reception of Lefebvre's oeuvre) (see, for instance, Revol, 2012). "The urban phenomenon", he (2006 [1970]) writes,

> has a profound effect on the methods of production: productive forces, relations of production and the contradictions between them. It both extends and accentuates on a new plane the social character of productive labor and its conflict with the ownership of the means of production (p. 167).

At the end of the 1960s, the insight that "the urban intervenes in production and the relations of production" (Lefebvre, 2006 [1970], p. 47) was as novel as it was remarkable, as at the time there was little or no talk about a transition from an industrial society to whatever it was that would replace it. The post-war reconstruction of the industrial city still was in full swing. The industrialisation of agriculture, the regionalisation of industry and, even, the creation of so-called New Towns – suburban residential units for car-possessing blue collar workers – still reminded of (Keynesian, Fordist) monopoly capitalism. The post-war restructuration of capitalism, moreover, had yet to pull the political-economic rug from under the feet of industrial cities, ultimately necessitating another round of urban planning so as to create a form of urbanity fit for (neoliberal, flexible) multinational capitalism. So, at the time of writing, Lefebvre found himself in a twilight zone between reconstruction and restructuration, unable to grasp the singularity of that period when – from 1958 to 1972 – older social, economic and cultural conditions were being surpassed by newer ones (see also Hardt and Negri, 2000, p. 285). He intuitively felt that societies were changing, while being unable to fully grasp the extent of these changes. He found himself in a "blind field", as he put it, a "critical phase", in which one field (i.e. the industrial) resided and another one (i.e. the urban) emerged; a space-time in which the contours of the new are visible, yet barely so, as newer conditions are sometimes obscured, sometimes eclipsed by older sensations and conceptions (2006 [1970], p. 26–31).

From the vantage point of the 2000s, however, we are better able to understand what Lefebvre intuitively anticipated. Capitalist societies, indeed, began to tend towards complete urbanisation as economic production and social reproduction got increasingly organised not in – or around – the factory and its specific spatialities, temporalities and activities, but in – and around – the city as a whole. This line of sight – and the intervisibility between the 1960s and the 2000s – becomes possible when we look through the theoretical lens of authors working in the autonomist tradition, such as Virno, Hardt and Negri. This is not a leap. As Harvey (2009, p. 290), Stanek (2011, p. 163) and, especially, Veen (2010, pp. 164–167) suggest, their analyses – and especially, Hardt and Negri's *Commonwealth* (2009) – are very closely aligned

with Lefebvre's thesis on the urban revolution; something that Negri also acknowledges in an interview (Negri and Scelsi, 2008, pp. 35–37).

2.2 The Urban Mode of Production

Lefebvre's argument that the dominant mode of production has become urban rather than industrial entails that, as Negri put it, "the city *in itself* becomes productive" (Negri and Scelsi, 2008, p. 35; my italics). "Today", the latter explains, "the organized, inhabited and traversed territory has become a productive element" (idem, p. 36). This means, to put it bluntly, that (1) the city rather than the factory has become both the locus and the engine of production, and that (2) the focus of production has shifted from objects on assembly lines to subjects in networks (Lefebvre, 2006 [1970], p.47 and 2006 [1968], p. 101; Hardt and Negri, 2009, pp. 249–260). Let me explain.

From the 1970s onwards, Hardt and Negri argue, the industrial working class morphed into an urban multitude. They define this transition by pinpointing three structural changes in the dominant 'technical composition of labour' (How is production organised? What is produced? Who produces?). First, labour got increasingly structured around the production (and consumption) of immaterial goods rather than material goods. This is to say that capitalism, as a system, got increasingly geared towards the production of 'material goods with immaterial aspects' or 'immaterial goods' in order to generate surplus value (in domains such as the creative, service, leisure, experience, ICT, entertainment and cultural industries). An immaterial good may consist of anything that contains social, symbolic or aesthetic properties – from information, knowledge and code to sounds, images or affects. In the capitalist valorisation process, in other words, the labour of the heart and the head steadily but surely began to outweigh the labour of the machine-guided hand, and ultimately became hegemonic. This shift from material to immaterial production entails, ultimately, that contemporary capitalism does not reproduce its social relations *indirectly* by producing objects for subjects that have nothing to sell but their abstract labour and nothing to offer but their concrete labour (the difference being the surplus value that returns 'as if by magic' to the pockets of the capitalists, as Marx (1976 [1867], p. 258) put it). Rather it reproduces them *directly* by producing social relations and forms of life through networked subjects. Capitalism, in other world, does not produce a world of objects but a whole life world: "the object of production is really a subject" (2009, p. 133). It is in this context, with its increasingly "blurred boundaries between labour and life, and between production and reproduction" that Hardt and Negri argue that production has become "biopolitical" (and that,

by extension, the "production of man by man" has moved to the foreground of social life) (idem, p. 133, p. 136).

Second, labour got increasingly organised in smaller, more mobile and more flexible production units structured as networks of cooperation and communication (increasingly but not exclusively enabled by Information and Communication Technologies) (Hardt and Negri, 2004, pp. 65–66, 82). This shift from Fordism to what can be described as post-Fordism entails, as Luc Boltanski and Eve Chappelle explain in *The New Spirit of Capitalism* (2007), that

> the standard image of the modern firm today is of a slim core surrounded by a conglomeration of suppliers, subcontractors, service providers, temporary personnel making it possible to vary the workforce according to the level of business, and allied firms. It is then said to operate as a network. The workers themselves, we are told, must be organized in small, multi-tasked teams (for they are more skilled, more flexible, more inventive and more autonomous than the specialist departments of the 1960s) (p. 76).

This mode of organisation can for instance be observed in its extreme form in the ways in which the so-called 'Big Five' of Silicon Valley (Google, Facebook, Amazon, Apple and Microsoft) have organised their workplaces and processes. The Googleplex resembles, for instance, something akin to an Olympic Village in which workers are assigned to temporary project teams in which they self-determine their work hours while they are provided with ample opportunity for fun 'n' games, sports, healthy meals and massages.

Simultaneously, labour itself increasingly acquired the means and capacities to self-organise its production processes, in the process becoming ever more autonomous due to the democratisation of computer technologies and the growth of what can be called, after Marx, "the general intellect" (Marx, 1987 [1939], p. 92). Think, for instance, of the relatively recent rise – partly voluntary, partly involuntary – in the number of freelancers, start-ups and cooperatives in the realm of immaterial production and the 'gig economy'; a process that reached maturity in the 2000s.

Both these tendencies stem from a rejection of large vertically integrated firms – and, especially, the bureaucracy that comes with such organisations – and can be seen as a continuation and radicalisation of the critique of hierarchical modes of production that began

in the 1960s (Boltanski and Chapelle, 2007, p. 70; Hardt and Negri, 2000, p. 274). We come back to this point in section 2.3.1.

Third, labour got increasingly less place-bound and more nomadic. *Where* and *when* one works has increasingly become a matter of self-management rather than top-down control. Hardt and Negri (2009) for instance write that

> the affective and intellectual talents, the capacities to generate cooperation and organizational networks, the communication skills, and the other competences that characterize [immaterial] labour are generally not site specific. You can think and form relationships not only on the job but also in the street, at home, with your neighbours and friends (p. 152).

Immaterial production doesn't have to take place in enclosed environments with monitored hours, such as the efficient factory or the cubicled office; this is even considered to be counter-productive. Think, here, of the recent trend towards nomadic ways of working that can be observed in anything from your home office and the flexible office to the Googleplex, and from your coffee place and the flexible workspace to the creative hub. As a consequence, the temporal and spatial division of the industrial mode of production has slowly but surely been eroded by the more flexible spatio-temporal regimes of today's mode of production.

These changes in the composition of labour make sure that workers ultimately depend on, and potentially further, two "mutually necessary" qualities that are inherent to the metropolis and make that *the city in itself* becomes productive: the commons and the unpredictable, aleatory encounter with heterogeneity (Hardt and Negri, 2009, p. 252). Immaterial production, Hardt and Negri argue, both relies on and creates so-called artificial (cultural) commons – the languages and codes, symbols and images that have become the most crucial raw material of today's economy. Artificial commons must be distinguished from inherited (natural) forms of common wealth such as water, land and woods or oil wells, ore fields and coal mines, which, evidently, are used as raw materials in industrial production. Artificial commons are not inherited from nature but created by societies, not generated biologically but produced socially and shared culturally. In this context, the metropolis becomes both locus and engine of today's mode of production. "The city" (2009), they write,

> is not just a built environment consisting of buildings and streets and subways and parks and waste systems and communication cables but also a living dynamic of

> cultural practices, intellectual circuits, affective networks, and social institutions. These elements of the common contained in the city are not only the prerequisite for [immaterial] production but also its result; the city is the source of the common and the receptacle into which it flows (p. 154).

The creation of social, symbolic or aesthetic value, in other words, depends on and expands the artificial commons as much as the artificial commons require and constitute common forms of social life. This is a spiralling process. The capacities and competences needed for the labour of the heart and mind are acquired in and through social circuits of various scales and scopes; and the thus-produced immaterial forms flow back into these circuits, ultimately enhancing the ability to acquire the human capacities needed to create social, symbolic and aesthetic value – and so on and so forth.

The development of the communicative, cognitive and affective capacities needed for immaterial labour is not only cultivated by exposure to the common forms of wealth embedded within cities. It is also furthered by the unpredictable encounter with difference and alterity that is part and parcel of the urban experience (see also Lefebvre, 2006 [1970], p. 118; and section 0.1). "The metropolis", Hardt and Negri (2009) write,

> is a place of unpredictable encounters among singularities, with not only those you do not know but also those who come from elsewhere, with different cultures, languages, knowledges, mentalities. […] Although at first sight the common might seem to conflict or even contradict with multiplicity and encounters of singularity, actually […], the common, in contrast to sameness, is entirely compatible (p. 252).

It is by virtue of such encounters with new people, ideas and sensibilities, which in spite of their unicity have a share in that which is common to metropolitan life, that the creativity of the multitude, its capacity to create immaterial forms, is triggered and put into motion. The flexibilisation of the spatiotemporal regime, which enables precisely such encounters – whether it is within the flex office or the flex space, near the coffee machine or in the espresso bar – plays, of course, straight into the need for unexpected encounters in today's mode of production.[4] It is for all of the above reasons, then, that we can speak of a passage from an (post-)industrial mode of production to an urban mode of production. "The metropolis is to

[4] Interestingly, the notion of 'third space', which Oldenburg used to define public spaces, has recently entered the jargon of office management in relation to the ideal environment to optimise productivity (Naughton, 2016).

the multitude what the factory was to the industrial working class" (Hardt and Negri, 2009, p. 250). Workers produce across the urban territory, in its every nook and cranny, while processing the abundantly available artificial commons (i.e. that which is common to metropolitan life), which serve as the raw materials as well as the fruits of their immaterial labour.

2.3 Making the Passage

In the last chapter I argued, following Perez, that today's mode of production originated in the technological big bang of 1972 (and its subsequent technological revolution) and became dominant around the turn of the millennium. In this section I revisit this thesis by arguing that the origins of the urban mode of production should be situated in the period preceding the 1972 bang: the 1960s. I do so, by showing that the passage from an industrial mode of production to the fully urban mode of production (via the post-industrial or informational mode) can be traced by mapping two trajectories that emerged in the 1960s and matured, jelled and combined in the 2000s. One is a direct trajectory; the other is an indirect trajectory. Taken together they demonstrate the convergence of countercultural aspirations, computer technologies and – very interoperable – forms of political-economic and cybernetic control that constitutes the urban mode of production.

2.3.1 Indirect Trajectories: The '1960s' and Beyond

For both Lefebvre and Hardt and Negri, the first, inaugurating, 'moment' in the development of urban societies and today's mode of production must be related to the cycle of labour struggles and the explosion of social movements in the 1960s (see, for instance, Lefebvre's book-length analysis of 'May '68', 1968 [2006]). They – and others working within the Marxist tradition, including myself – consider the plethora of worker protests, student uprisings, equal rights movements and countercultures of those years to be symptoms of a widespread discontent with the disciplinary regime of industrial societies. These movements converged around a wide variety of unsettled issues concerning the rigid Fordism of factories, the uninspiring urbanism of cities, the stifling hierarchies of universities, the traditional patriarchy of white men, the staccato eight hour rhythm of work, leisure and rest, and the desire for other forms of life. This 'subjective crisis' resulted in a period of cultural experimentation revolving around flexible lifestyles, creative expression, social cooperation and the emancipation of difference (see Lefebvre, 1968 [2006]; Hardt and Negri, 2000, p. 274). One of the great ironies of history is that these experimentations formed the basis for,

and got recuperated by, the restructuration of capitalism in the aftermath of the various (economic) 'objective crises' of the late 1960s and early 1970s. Hardt and Negri (2000) write

> These new circuits of the production of subjectivity […] were realized within and against the final period of the disciplinary organization of society. The movements anticipated the capitalist awareness of a need for a paradigm shift in production and dictated its form and nature (p. 274).

This is not to say that the subjective crises of the 1960s 'caused' the subsequent social, economic and cultural changes in the dominant capitalist societies, yet they were 'used' as so many models to solve the objective crises and make the passage to a post-industrial and, ultimately, an urban society.

The changes in the technical composition of labour, resulting from the subjective and objective crises of a disciplinary and industrial society running out of steam, necessitated, in other words, new forms of political-economic control. Recall that after the crises of the 1970s production increasingly spilled over the walls of the factory and the office onto the streets, and labour became ever more autonomous due to an increase in the general intellect, the availability of ICTs and the common forms of wealth embedded in urban spaces. In this situation, the monitored hours and surveilled spaces of industrial production become relatively useless and counterproductive. Instead, we can discern three forms of political-economic control – often associated with the neoliberalisation of our institutions as well as our culture – that correspond to the different aspects, outlined above, of the technical composition of labour in the urban mode of production.

First, the common forms of wealth that are the *alpha* and *omega* of immaterial production are increasingly expropriated and privatised in an attempt to control labour power – from the privatisation of public education, public spaces and public spheres to the expropriation of common wealth through regimes of intellectual property rights, copyright and patents, and so on. In doing so, however, these strategies are both "draining the common bases of production and […] privatizing the common results" (Hardt and Negri, 2009, p. 145). Recall that immaterial production is bound to establish a spiralling process that gives and takes from the artificial commons embedded in the city (i.e. the accumulated set of knowledges and affects, symbols and images, codes and languages and so on). In a sense, then, immaterial production, as process and product, increasingly takes place autonomously – external to capital – rather than within the bounds of capitalist command and control. Capital

does not necessarily determine the production process, as it did in industrial times. Yet it does extract surplus value – in the form of profit or rent – from labour. "Capital is predatory, as the analysts of neoliberalism say, insofar as it seeks to capture and expropriate autonomously produced common wealth" (Hardt and Negri, 2009, p. 141). This 'extractivist' strategy of expropriation and privatisation obstructs, then, this virtuous cycle as much as it extends its sway over the whole of social life, capitalising on the common forms of wealth embedded in urban societies.

Second, the increasing capacity and need for labour to organise itself in temporary networks of cooperation is mirrored and inverted by the increased prevalence, in all spheres of social life, of competition among peers. Read (2009) for instance argues, following Foucault, that neoliberal competition has replaced liberal exchange as the general matrix for society (while the *homo economicus* underlies both). The dominant view of man has in other words become that of a creature competing, at the expense of others and for its own 'profit', for the means to achieve his or her goals. This entails, Read writes (2009),

> a massive redefinition of "labour" and the "worker." The worker has become "human capital". Salary or wages become the revenue that is earned on an initial investment, an investment in one's skills or abilities. Any activity that increases the capacity to earn income, to achieve satisfaction […] is an investment in human capital (p. 28).

Collaboration, then, becomes an investment in one's personal human capital (as much as one is admitted into a temporary network of cooperation based on one's reputation) rather than something that is intrinsic to, and crucial for, the production of immaterial goods. Encounters become occasions for networking; commitment is substituted for opportunism; long-term goals are eclipsed by short-term targets and common purpose is defeated by self-interest.

Third, the flexibilisation of the spatio-temporal regime and the capacity and need to determine for oneself where and when one works is mirrored and inverted by the control imposed by precarity (see also Hardt and Negri, 2009, p. 148). Over the past decades, the so-called flexibilisation of the labour market resulted in a situation in which temporary contracts have become the norm across all domains of work. This entails that one is often forced to either juggle several jobs simultaneously to make ends meet or change jobs repeatedly over the span of a lifetime to keep the boat afloat (rather than see it lifted – as if by magic – by the rising tide of neoliberal trickle-down economics). Labour is, then, flexible and mobile, even nomadic, if you will, but where and when one works is predominantly determined by the

demands of work – now here and now there, yet at all times at someone's disposal so as to not be disposed of. "Precarity", Hardt and Negri (2009) argue, focusing on its temporal aspects,

> is a mechanism of control that determines the temporality of workers, destroying the division between work time and nonwork time, requiring workers not to work all the time but to be constantly available for work (p. 146).

A similar observation, however, could also be made concerning the spatiality of workers. Here, precarity requires either a constant need to be on the move – either moving out or moving on – during the workday or over the span of a career as much as it dissolves the boundaries between workspace, leisure space and home, blending work and non-work across social space.

In these strategies of political-economic control – privatisation, competition, flexibilisation – we can discern the mantras of the various waves of neoliberalisation we have witnessed since the 1970s (see Brenner et al. (2009) for an excellent overview). I do not have the space and time here to discuss neoliberalisation in all its various forms, shapes and guises. Within the context of the above-described strategies of political-economic control, it suffices to note that neoliberalism is ultimately a form of "governmentality", i.e. a more or less interrelated set of ideas concerning "the way in which one conducts the conduct of men" (Foucault, 2008, p. 186, and see also Lemke, 2001, pp. 190–207 and Brown, 2012, pp. 40–44) or, in our case, the urban multitude. As a manner of governing behaviour, it aims for at least three interrelated outcomes. First, neoliberal governmentality aims to channel the urban multitude back into what Marx called the C-M-C circuit in which one is obliged to compete on the labour market in order to sell or rent one's labour power to be able to buy sustenance. In a situation in which temporary contracts are the norm, competition becomes, then, a permanent feature of everyday life. Second, it naturalises this form of constant competition by claiming that, by evolutionary design, competition is in human nature and hence that it is the natural order of things. And third, it makes and holds one personally responsible for one's relative success – or lack, thereof – in competing for work (of whatever nature), which, or so the argument goes, simply depends on one's investments, often made by indebting oneself, in one's human capital (concerning anything from education, healthcare and housing to lifestyle, (online) reputation and social networks). In doing so, it extends its grip well beyond the sphere of work (in itself already an ambiguous notion, as we have seen) over and across all of the social interactions and spatial practices of everyday life. It is for all of the above reasons

that critics of neoliberal governmentality (and political-economic control) often argue that the dominant manner in which the multitude, with its tendency towards the common, is subjectivised; aiming at a subject that should be considered, and considers itself, an 'entrepreneur-of-the-self'; someone who is regarded, not in the least by him- or herself, as human capital and as a series of investment opportunities safeguarding its own future (Foucault, 2008; Lemke, 2001, pp. 190–207; Brown, 2012, pp. 40–44).

So, in sum, this indirect passage from the 1960s to the 2000s, and from the industrial mode of production to the urban mode of production (via the post-industrial or informational mode) can be characterised by the becoming-dominant of the multitude's technical composition of labour as well as neoliberal forms of political-economic control.

2.3.2 Direct Trajectories: '1960s California' and Beyond

In order to highlight the second, more direct trajectory from the (post-)industrial mode of production to the urban mode of production, we need to zoom in on *The New Left* (Barbrook and Cameron, 1999) or – even more specifically – *The New Communalist* (Turner, 2006) branches of the countercultural movement along the American West Coast, and especially in California. Like Lefebvre, Hardt and Negri (and many others analysing the indirect influence of countercultural movements on the emergence of the urban mode of production), the authors singling out '1960s California' argue that the transition from an industrial to an urban mode of production (via the post-industrial or networked mode) is not so much a result of the 1972 bang or the maturation and democratisation of Information and Communication Technologies in the late 1990s and early 2000s (see chapter 1). Rather, this transition, as well as, in this case, the technologies that proved pivotal to it, should be conceived of as a recuperation of the innovative ways of doing and thinking of the various countercultural movements of the 1960s. According to Barbrook and Cameron (1999) for instance

> West Coast radicals became involved in developing new information technologies for the alternative press, community radio stations, home-brew computer clubs and video collectives. These community media activists believed that they were in the forefront of the fight to build a new America. The creation of the electronic agora was the first step towards the implementation of direct democracy within all social institutions. […] Over the last few decades, the pioneering work of the community media activists has been largely recuperated by the hi-tech and media industries.

This 'recuperation' thesis is, in fact, the dominant view of '1960s California' and its relation to today's mode of production (Barbrook and Cameron, 1999).

In *From Counterculture to Cyberculture* (2006) Fred Turner nuances this view by means of a historical reconstruction of the convergence of computer science, cybernetics and counterculture. This reconstruction aims to "revise our understanding of both the counterculture of the 1960s and its relationship to the rise of post-industrial [*or urban – RA*] forms of production and culture" (2006, pp. 239–40). Turner sets out from a paradox. While many voices across the youth movements of the 1960s and 1970s used the metaphor of the computer to represent and criticise what they perceived to be a technocratic and alienating social order, "the hippie style of protest […] echoed ideas, social practices, and attitudes to technology that had emerged in the centre of the cold war research world" (Turner, 2006, p. 12). While a substantial and very influential number of them embraced the tools and models developed by the computer scientists working in the military-industrial-academic complex of the 1940s and 1950s, students across college campuses criticised universities and corporations for being automated machines that processed people as if they were "little more than an IBM card" (idem).

To be sure, Turner, too, points to the pivotal role of the countercultural movement in the transition from an industrial to a post-industrial and, ultimately, an urban mode of production. "There is some truth to the story that the authentically revolutionary ideals of the generation of 1968 were somehow co-opted by the forces they opposed" (2006, p. 4). Yet the tools and models of what he calls the New Communalists – consisting of the millions of Americans living, at one point or another, communally, as well as their sympathisers – were not necessarily created against the grain or *ex nihilo*.

> Although it is tempting to think of that mode [*the networked or urban – RA*] as a product of a revolution in computing technology, I argue that the revolution it represents began long before the public appearance of the Internet or even the widespread distribution of computers. It began in the wake of World War II, as the cybernetic discourse and collaborative work styles of cold war military research came together with the communitarian social vision of the counterculture (Turner, 2006, p. 9).

According to Turner, the 'recuperation' thesis has "obscured" that the ways of doing and thinking developed by the new communalists of the 1960s and 1970s reflected, and actively embraced, the ways of doing and thinking developed by the computer scientists of the 1940s and 1950s – and, most importantly, their cybernetic theories (2006, p.32–33).

Cybernetics originated in the attempts of Herbert Wiener and other scientists to apply theoretical mathematics to the war effort. Its central aim was to construct self-learning human-machine assemblages (cyborgs, really), which, by means of feedback in the form of information flows, would be able to adjust their behaviour within a dynamic system according to pre-set goals (Turner, 2006, pp. 20–22; Mindell, 2000, pp. 1–2). Wiener's initial preoccupation was to develop a so-called 'anti-aircraft predictor', which was capable of guiding an anti-aircraft gun-gunner assemblage by predicting the course of a plane-pilot assemblage. Yet over the years it grew into a full-blown techno-utopian vision of computer-mediated interactions and data processing capacities that would enlarge our affective, cognitive and communication capacities and create a collective consciousness (Turner, 2006, pp. 22–24; and also Mindell, 2000).

At its core, cybernetics implied a mode of regulating behaviour. Indeed, according to the *Oxford English Dictionary*, the word has its etymological roots in 'kubernētēs', i.e. 'steersman' or 'governor'. Through "[the mechanisation of] the use of long-time observations to give the statistical basis for short-time predictions" (1985 [1948], p. xiii), Wiener hoped to develop ways to predict as well as adjust, correct and control the behaviour of man-machine assemblages within dynamic systems. "It has long been clear to me", Wiener wrote in *Cybernetics* (1985 [1948]),

> that the modern ultra-rapid computing machine was in principle an ideal central nervous system to an apparatus for automatic control; and that its input and output need not be in the form of numbers or diagrams but might very well be, respectively, the readings of artificial sense organs (p. 76).

This passage betrays the rather behaviourist overtones of the cybernetic discourse. Wiener's idea of an 'apparatus for automatic control' revolved around the analysis of input and output – environmental stimuli and actions – to predict behaviour as well as reinforce desired behaviour. In this view, the inner life of man – or, rather, his or her drives and intentions, wants and needs – can be disregarded, as it has no part in the equations that govern the man-

machine assemblage (albeit, it must be noted, that these drives and intentions, wants and needs are ultimately reconfigured by this or that technology).

Yet cybernetics implied, too, a vision of society in which the might, power and alienating effects of governments and corporations could be rivalled by the communal use of ICTs (Barbrook and Cameron, 1999). Through computers, after all, one could extend one's sensory, mental and communication capacities up to the point where one could freely interact with one's peers, tap into collective pools of knowledge and 'flatten' hierarchies. In *The Human Use of Human Beings* (1989 [1954]), Wiener, for instance, wrote,

> Where a man's word goes, and where his power of perception goes, to that point his control and in a sense his physical existence is extended […]. Even now the transportation of messages serves to forward an extension of man's senses and his capabilities of action from one end of the world to another (pp. 97–98).

And he (1989 [1954]) added:

> Thus there is a new engineering of prostheses possible, and it will involve the construction of systems of a mixed nature, involving both human and mechanical parts. However, this type of engineering need not be confined to the replacement of parts that we have lost. There is prosthesis of parts which we do not have and which we never have had (p. 76).

This rhetoric echoes, of course, the writings of Marshall McLuhan, one of the other media theoretical darlings of the counterculture (see, especially, 2011 [1962] and (1994 [1964]). "Electronic media abolish […] the spatial dimension", McLuhan famously wrote. "We everywhere resume person-to-person relations as if on the smallest village scale" (McLuhan, 1994 [1964]), p. 255; also cited in Barbrook and Cameron, 1999). It's easy to see the appeal to the new communalists of this cybernetic rhetoric. The writings of Wiener and McLuhan, among others, introduced the communards to a cybernetic vision of the world that aligned with their own interest in non-hierarchical communities of peers, self-regulating systems and consciousness-altering technologies. "The cybernetic notion of the globe as a single, interlinked pattern of information was deeply comforting [and seemed to promise] the possibility of global harmony" (Turner, 2006, p. 5).

By the late 1960s, community media activists and new communalists shared a techno-utopian belief in the cybernetic powers of data processing and mediated interaction. Networked computers were widely believed to enable efficient and felicitous forms of collaboration among peers organised in dynamic systems that were bound to be horizontal, harmonious and beneficial. As many commentators have pointed out, there is a more or less direct trajectory from this cybernetic discourse to today's drive – emanating from Silicon Valley – to both connect and '*smart'*-en all people, things and environments in order to disrupt what are often perceived as traditional, old-fashioned models (see, for instance, Rouvroy and Berns, 2013; Invisible Committee, 2014). Turner reconstructs one of the ways in which this came to be by focusing on the 'knowledge broker' Stewart Brand and the various 'network forums' he created between computer scientists, communalists and the tech industry – from the *Whole Earth Catalogue* (the go-to guidebook for the communalists of the 1970s) to the *WELL* (the pioneering digital community of the 1980s) to *Wired* (the cheerleading magazine that encouraged and celebrated the so-called dotcom boom of the 1990s) (2006). In brief, this personal and social history recounts how the countercultural communards and technohippies *first* embraced the cybernetic discourse in their quest to establish alternative communities and transform the alienating, hierarchical and rational social order of disciplinary societies and *then* aligned themselves with the techno-utopianism of 'Silicon Valley' in order to realise their ideals amidst the waning of the spirit of the 1960s. In doing so, however, they also aligned themselves with Silicon Valley's form of capitalism that operates in the service of fictitious capital and aims at a continuous disintermediation of so-called inefficient market places, government agencies and social systems (see, especially, Barbrook and Cameron, 1999). Towards the end of the 1990s, then, Silicon Valley had become a central node for the convergence between the New Left (especially the New Communalists) and the New Right (especially the Libertarians). According to Barbrook and Cameron (1999), for instance,

> [The 'Californian Ideology'] has emerged from a bizarre fusion of the cultural bohemianism of San Francisco with the hi-tech industries of Silicon Valley. [It] promiscuously combines the freewheeling spirit of the hippies and the entrepreneurial zeal of the yuppies. This amalgamation of opposites has been achieved through a profound faith in the emancipatory potential of the new information technologies. In the digital utopia, everybody will be both hip and rich. Not surprisingly, this optimistic vision of the future has been enthusiastically embraced by computer nerds, slacker

> students, innovative capitalists, social activists, trendy academics, futurist bureaucrats and opportunistic politicians across the USA. As usual, Europeans have not been slow in copying the latest fad from America.

The Californian Ideology represents, and hence legitimises and naturalises, the amalgamation of the countercultural ideals of autonomy, horizontal communities and self-regulation with the libertarian ideals of self-styled entrepreneurs, transparent marketplaces and invisible hands that come together in the techno-utopian discourse of Silicon Valley. In it, several seemingly contradictory yet fully compatible ideological currents come together: Weiner's work on cybernetics from the 1940s and 1950s, the hippies or communalists from the 1960s and 1970s, and the neoliberal or – even – libertarian investors of the 1980s and 1990s. These groups share a belief in non-hierarchical, horizontal interactions between autonomous and equal actors – peers, that is – in dynamic networks (i.e. information systems, communities, markets), which, by means of constant feedback loops, always and necessarily tend to, if not result in, a harmonious and optimal equilibrium. Yet the dominance of the 'Californian Ideology' also symbolises the definite co-optation of the ideals of '1960s California' (even though Turner (2006) downplays the originality of their tools and models). In a sense, then, the techno-hippies of the 1960s, and their countercultural ideals, have seemingly followed the ideological path – or Third Way – cleared by the various waves of neoliberalisation, while starting to believe, along the way, that, indeed, 'There is No Alternative' to the disintermediation of large corporations and, especially, government agencies in times of "capitalist realism" with a cybernetic twist (Fisher, 2009). As a result, the interfaces of the dominant platforms and killer apps stemming from Silicon Valley should be perceived as ideological apparatuses of, and within, today's political economy and its forms of neoliberal governmentality.

Yet these dominant platforms and killer apps are not only ideological apparatuses, they also are apparatuses of control, to use Weiner's phrase. *The interface interpellates; the algorithm modulates*. In his seminal essay 'Postscript on the Societies of Control' (1992) Deleuze discusses the transition from a disciplinary society to a control society in terms of a shift from the logic of the mould to the logic of modulation. The former operates as a one-size-fits-all "casting" producing subjects for the industrial mode of production; the latter as a customised "self-deforming cast that will continuously change from one moment to the other" producing subjects for the urban mode of production (1992, p. 4). Modulation is algorithm-

powered and has three basic mechanisms (see, especially, Savat, 2009 and 2013, p. 28–37; Rouvroy and Berns, 2013; Rouvroy, 2014). It is based on pattern recognition in user data, the anticipation of future wants and needs based on user profiles, and the adjustment of behaviour by intervening in social space. "In such a situation", Savat (2009) argues,

> control is experienced differently than it is with disciplinary power. Instead of you actively adjusting your behaviour in order to conform to one or another norm, it is now the environment that adjusts to you, and does so in advance. […] In a context where one is always already programmed for in advance, 'control' comes to be so subtle that it may well present itself in the form of 'choice' (p. 57).

As we will see throughout this dissertation, smartphone applications work in the exact same manner. Based on recognition of patterns in available data (say, past behaviour, past behaviour of users with similar profiles, available options, etc.), including your location data, your next move and most likely wants and needs are predicted, upon which an application sends, say, a push notification alerting you to nearby places, persons, or activities (to influence behaviour). Whereas discipline is about the "composition of forces", control is about the channelling of desires (Savat, 2013, p. 17). Antoinette Rouvroy (see, for instance, Rouvroy and Berns, 2013 and Rouvroy, 2014) coined the notion of "algorithmic governmentality" to highlight that these contemporary forms of cybernetic control ultimately are ways to conduct the conduct of the multitude. "Algorithms", she (2015) argues, "are not so much 'systems of prediction' but rather 'systems of intervention'" (p. 2; my translation), aimed at adjusting behaviour.

2.4 Networked Dividuals

One of the recurring tropes in the debate about cybernetic control and algorithmic governmentality is the notion, coined by Deleuze, of the "dividual" (1992). It can be seen as the critical counterpart to the neoliberal notion of the networked individual that we encountered in the previous chapter (section 1.4). The shift from the disciplinary mould of industrial societies to the modulatory mode of urban societies entails a shift from the pair "mass/individual" to the pair "data/dividual" (see Deleuze, 1992 and Savat, 2013). Discipline moulds a mass of useless bodies into productive individuals suited to the requirements of a particular social space (school, factory, etc.); control algorithmically manipulates data

generated in widely diverse contexts in order to adapt social space to the anticipated wants and needs of a user profile. Modulation, in other words, doesn't see or operate on bodies of individuals with singular identities; it sees pure data in order to manipulate user profiles divided – dividualised – into specific wants and needs for specific places and times. Rouvroy therefore speaks of "data without bodies" (2014).

However, this focus on the 'data/dividual' pairing presupposes that users are always already seduced – duped – into believing they make choices while they are reproducing existing relations of capital and power. It merely takes user-generated *data* into account, while omitting that it is precisely the user's body – with all its communicative, cognitive and affective capacities – that contributes user-generated *content* (in the broadest sense of the term) to the common in and through hybrid space. For this reason, I propose to couple the notion of 'dividual' to the adjective 'networked', as it indicates that subjectification emerges at the nexus of user profiles and networked bodies.

Below I revisit the three common sense notions that we discussed in relation to hybrid space and the networked individual (in section 1.4) from the perspective of the 'noisy sphere' of production and in light of this chapter's findings. First, I discuss the mode of cooperation of the urban mode of production and, by extension, hybrid space in terms of an *urban operating system* (instead of a networked operating system). Then, I use the post-privacy discourse in order to outline the modulatory spatiality of what can be described as the *software-sorted city*. Lastly, I revisit the structure of experience corresponding to 'always-on/always-on-you' devices to argue – using Virno's (2009) Heideggerian analysis of the multitude's experiential register – that it can perhaps be best described as a *manic restlessness* (rather than post-boredom).

2.4.1 From the Networked Operating System to the Urban Operating System

The urban mode of production emerged in the '1960s' and became hegemonic around the turn of the millennium, after its various elements matured, gelled and combined throughout the 1970s, 1980s and 1990s (during the so-called 'post-industrial' or 'informational' years of advanced capitalist societies). Its social operating system – i.e. the dominant form of cooperation in and of the urban mode of production – is, as we have seen, overdetermined by two seemingly contradictory yet fully compatible logics that cut transversally through every other domain of social life: the logic of the common and the logic of control. The urban social operating system intertwines, in other words, the 'for benefit' logic of common associations and the 'for profit' logic of market associations (while, as a

result of today's neoliberal ideological blockage, undermining and bypassing social relations determined by the logic of public goods associated with the state).

We have observed two forms of control: political-economic control and its corresponding neoliberal governmentality as well as cybernetic control and its associated algorithmic governmentality. It might be said that neoliberal governmentality controls production from the perspective of labour and algorithmic governmentality controls consumption from the perspective of leisure. In reality, however, all of these categories have dissolved up to the point where one cannot any longer make an analytical distinction between labour and leisure, life and work, production, reproduction and consumption. In this situation, political economic control and cybernetic control have become – to borrow a notion from the computer sciences – fully interoperable. This interoperability ensures that the 'for profit' logic of control operates in order to produce two forms of dividuality all at once: the entrepreneur-of-the-self and the consumer-of-the-self (if I may coin a new concept). The former is concerned with a continuous updating of its self-investment portfolio in order to be able to present the self as competitive, an attractive human resource, in the race for work in temporary networks that are characterised by flexible spatio-temporal regimes. The latter consumes its self, seen as a user profile, by selecting from a range of choices – *pop-ups,* as it were – in a modulatory hybrid space that anticipates its immediate wants and needs (and channels desire) based on user-generated data concerning previous consumer choices, social interactions and spatial practices.

We have also identified a broad and narrow sense of the common: the former consists of the immaterial production of the networked bodies of the multitude, and the latter consists of the user-generated content created and shared through social media platforms and smartphone applications. These two senses of the common mutually reinforce one another in some kind of "viral spiral" (Bollier, 2009) that makes use of, and adds to, the affective, cognitive and communication capacities of the multitude as well as the common forms of wealth, resulting in a surplus that increasingly spirals out of control. This spiralling virality ensures that the 'for benefit' logic of common associations produces two types of networked bodies all at once: the user-cum-commoner that simultaneously remains within, and exceeds, the bounds of control.

Taken together, then, the 'for profit' logic of market associations and the 'for benefit' logic of common associations co-determine – in the first and last instance, as it were – the urban operating system. "The resulting situation", Hardt and Negri (2009) write in a crucial passage,

> is characterized by a double production of subjectivity, or rather the production of two opposed, conflicting subjectivities that cohabit in the same social world. A capitalist power which is progressively losing its productive role, its ability to organize productive cooperation, and its capacity to control the social mechanisms of the reproduction of labor-power, cohabits, often uneasily, with a multitude of productive subjectivities, which are increasingly acquiring the constituent capacities necessary to sustain themselves autonomously and create a new world (p. 293).

As stated, this double production of subjectivity can be described by means of two archetypes: the entrepreneur-cum-consumer-of-the-self on the one hand and the user-cum-commoner on the other hand. Hardt and Negri argue that these subjectivities are conflicting and in the long run lead to the demise of capitalism. Let it be clear, however, that at this point in their analysis their diagnosis of today's symptoms – which is spot on – gives way to a highly wishful treatment plan and the prescription of untested medication. I would like to argue, in contrast, that for the moment these two logics exist in tension, yet that they also still are very much compatible – to borrow yet another notion from the computer sciences – with today's urban mode of production. "Urban space", Lefebvre (2006 [1968]) once wrote, "is occupied by interrelated networks and tensions between unique code – exchange value – and […] partial codes that do not become part of the unitary procedure" (p. 168). These systemic tensions may result in relatively minor reconfigurations of the urban operating system and may even result in some kind of growing surplus, but they will in all probability not result in a massive crash of the urban operating system any time soon.

2.4.2 From Post-Privacy to Software-Sorted Space

We ended the section on post-privacy in the previous chapter (section 1.4.2) with the ominous words of Eric Schmidt, a Google CEO. "We", he said, "know where you are. We know where you have been. We can more or less know what you're thinking about" (2004). This reminds us of a prediction by Deleuze (1992), which he attributed to Guattari, that

> the conception of a control mechanism, giving the position of any element within an open environment at any given instant […] is not necessarily one of science fiction. Felix Guattari has imagined a city where one would be able to leave one's apartment, one's street, one's neighborhood, thanks to one's (dividual) electronic card that raises

> a given barrier; but the card could just as easily be rejected on a given day or between certain hours; what counts is not the barrier but the computer that tracks each person's position – licit or illicit – and effects a universal modulation.

Guattari's conception or representation of space may perhaps still be the stuff of science fiction stories. However, science fictions (and utopias) belong to a literary tradition that is indeed structured around the imagination. This generic trait implies, as Fredric Jameson argued, that they are not so much about the future as they are about the present as some distant future's past. Science fiction scenarios – of all kinds – are not anticipations of a world to come; they are interventions in the here and now. This means that the imagination – per definition – is a "hostage of our mode of production" and "serves the negative purpose of making us more aware of our mental and ideological imprisonment" (Jameson, 2007, p. iv).

The imagined scenario of some kind of universal computer capable of micro-managing mobility patterns serves, then, as a warning, or uncanny reminder, that, yes, in the urban mode of production hybrid space has, indeed, become a fully transparent "code/space" (Kitchen, 2014) that aggregates and manipulates user-generated data in variable – and, hence, highly uneven – manners. In this context, Graham (2005) talks about "software-sorted" environments in which "worlds of code" are "sunk in the taken for granted background of everyday life" while actively reproducing social and economic inequalities (p. 563). As we have seen, modulation doesn't necessarily involve barriers (though it could, as in the case of being stopped at a border under suspicion of, say, terrorism), and mostly operates by means of channelling desires (anticipating wants and needs), yet it does so by channelling desires into what you *can* want and *can* afford based on determinate circumstances, including your coordinates in hybrid space, your social standing and your spending power. Most mobile applications, for instance, "focus their attention on young, affluent city residents, with both disposable income and discretionary mobility" (Dourish et al., 2007, p. 2; also cited in Frith, 2015, p. 136).

As a result, the social spaces of the software-sorted city become "differential spaces" (de Souza e Silva and Frith, 2010, p. 498; Gordon and de Souza e Silva, 2011, pp. 148–149). Software-sorted spaces are so differential because, first, only people with access to mobile and locative interfaces, or users of a particular interface, can use it as a tool or a medium to navigate – or negotiate – the social and spatial relations, forms, functions of the city; and, second, its functioning as an (ideological and modulatory) apparatus changes the perception of space for each singular networked dividual based on, say, class, gender, or sexuality. "It

might thus be argued", Gordon and de Souza e Silva (2011) write, "that [such] applications create a type of 'differential public space', in which physically co-located people experience things very differently" (p. 149).

2.4.3 Structure of Experience: From Post-Boredom to Manic Restlessness

I argued in section 1.4.3 that the structure of experience of hybrid space, with its common sense assumption that mobile interfaces are 'always-on/always-on-you', resembles, at first sight, a state of being that can be described as post-boredom. In this section I would like to revisit this argument from the perspective of Virno's (2004) analysis of the "emotional situation of the multitude" (p. 84). This expression, which basically has the same meaning and scope as the Benjaminian structure of experience, entails "ways of being and feeling so pervasive that they end up being common to the most diverse contexts of experience (work, leisure, feelings, politics, etc.)" (idem). Importantly, any emotional situation (or structure of experience) has:

> a *neutral core* subject to diverse, and even contrary, elaborations. This neutral core points towards a fundamental mode of being. Now, it is certain that the emotional situation of the multitude today manifests itself with "bad sentiments" […]. Yet it is necessary to rise up from these "bad sentiments" to the neutral core, namely to the fundamental mode of being, which, in principle, could give rise even to developments very different from those prevailing today. What is difficult to understand is that the antidote, so to speak, can be tracked down only in what for the moment appears to be a poison (idem).

In section 1.4.3 I set out from Turkle's observations that mobile interfaces enable you to browse an otherwise meaningless environment for things and people that matter to you, fill down-time or stalled time with computer-mediated social interactions or spatial practices, and validate thoughts and feelings with friends (following either the 'I have a feeling/get me a friend' logic or the 'I want to have a feeling/get me a friend' logic). For Turkle these tendencies are, indeed, the symptoms of a poison that has affected the social body. 'Always-on/always-on-you' devices are supposed to keep networked dividuals from, say, being physically intimate, having face-to-face interactions, and being focused or contemplative (2008). The task at hand, then, is to track down the antidote in precisely the social poison that mobile interfaces, admittedly, can also be. I do so by revisiting this 'mattering', 'distracting'

and 'validating' in the context of the immaterial production of the multitude and from the perspective of, respectively, 'opportunism', 'curiosity' and 'idle talk', three modes of being central to Virno's argument and reminiscent of Heidegger's analysis of the fallen modes of being in *Being and Time* (1996 [1927]) (Virno, 2004, p. 88).

"Opportunists", Virno (2004) argues, "are those who confront a flow of inter-changeable possibilities, making themselves available to the greater number of these, yielding to the nearest one, and then quickly swerving from one to another" (p. 86). They, to slightly rephrase, are constantly open to, and on the lookout for, people and things that matter because they present novel opportunities – something or someone new that suits their needs, wants or interests. In the context of immaterial production, opportunistic 'mattering', constantly forging connections with things and people that matter to your life, while ignoring other irrelevant connections, becomes a "professional quality" of "technical importance" (idem). The multitude, in order to make ends meet, constantly needs to adapt to new projects, teams, and environments as well as contribute its affective, cognitive, and communicative resources to the valorisation process.

This opportunism closely resembles the experience of city life itself, with its hyper-mobility in, and between, groups as well as the heterogeneous and aleatory character of social and spatial encounters. "The roots of opportunism", Virno (2004) therefore argues, "lie in an outside-of-the-workplace socialization" provided by urban life and "marked by unexpected turns, perceptible shocks, permanent innovation, chronic instability" (p. 86). Today, as we have seen, the city, and its inherent opportunism, has become the required training ground for a multitude that depends for its productivity on common forms of wealth and aleatory encounters. It is for this reason that Virno, as well as Lefebvre, Hardt and Negri, argue that urban life and immaterial labour are intertwined in the urban mode of production. "To put it succinctly", Virno (2004) writes, "the seam is to be found between the opportunism at work and the universal opportunism demanded by the urban experience" (p. 106).

Yet we have to take his argument one step further. If there is a seam between the fabric of immaterial labour and the fabric of urban life, and they are, in practice, intertwined, then this seam is being held together, and stopped from unravelling, by the networked dividualism of the urban operating system. It is, after all, precisely the 'always-on/always-on-you' device (seen, alternately, as tool, apparatus or medium) that enables the necessary coordination, communication and cooperation to function within the urban mode of production; affords, say, discovering, creating and sharing affective, cognitive, and communicative goods; and stimulates, and helps to negotiate, the universal opportunism of

hybrid space. The opportunism characterising the experience of urban life and work life, and the seam between these existential fabrics that is held together by the opportunistic use of 'always-on/always-on-you' devices, must therefore be seen in both a positive and a negative light. Opportunism can either poison or strengthen the networked body of the urban multitude. Let me explain.

Related to this universal opportunism of hybrid space are the categories of curiosity and idle talk. For Heidegger (1996 [1927]), these are fundamental categories of the fallen mode of being that characterises existence among "the they, the one" ("das Man"); the others, or "public", one is with in one's everyday life (p. 156). "Being-there" ('Dasein'), Heidegger (1996 [1927]) writes in his typical idiom, is always also "being-with-one-another" (p. 163). In one's everydayness, curiosity is "a way of letting the world be encountered in perception" (by means of seeing and all other sense perceptions) (1996 [1927], p. 160). It is, in other words, the pre-eminent everyday social and spatial practice (to relate it to the Lefebvrean spatial triad). For Heidegger (1996 [1927]), curiosity is squarely placed in the realm of non-work: the moment "when curiosity becomes free" and is "no longer bound to the work-world" (p. 161). It constantly seeks for new things, as it jumps and leaps and stumbles from novelty to novelty to novelty. It is characterised by "not-staying with that which is nearest" and, in doing so, simultaneously "de-distances" that which is elsewhere by leaving "for a distant and strange world" that it brings close (1996 [1927], p. 161). Curiosity, then, seeks "restlessness and excitement from continual novelty and changing encounters" and, in this way, enables the "constant possibility of distraction" (1996 [1927], p. 161).

Idle talk, or as I prefer, chatter, is the everyday mode of being of communication (or speech). "Being-with-another *takes place in* talking with one another" (1996 [1927], p. 157, my italics). Chatter is shot through with that which is culturally accepted to say, and can be said, in public. It pertains, then, to the normalised and naturalised ways of understanding and interpreting the world. Chatter is not non-sense; it is common sense. It "prescribes attunement [that is, the basic way in which Dasein lets itself be affected by the world], it determines what and how one 'sees'" (1996 [1927], p. 159) (and therefore instantly reminds us of Lefebvre's spatial representations). The key contribution, here, is Heidegger's phenomenological observation that *they* are bound to talk all day every day and *one's* everyday life therefore takes place in what could be described as an oversized chat box spitting received wisdoms, constantly.

For Heidegger (1996 [1927]),

> These two everyday modes of being of discourse and sight are not only objectively present side by side in their uprooting tendency, but *one* way of being drags the *other* with it. Curiosity for which nothing is closed off, and idle talk, for which there is nothing that is not understood provide themselves (that is the Dasein existing in this way) with the guarantee of a supposedly genuine "lively life" (pp. 161–162).

This double-barrelled mode of everyday existence is being tapped into by, precisely, the main affordances of mobile interfaces (and this may very well be the reason for their astonishing market success and culture-defining ubiquity). Mobile interfaces have unleashed the everyday desires of 'curiosity' and 'chatter' in order to channel them onto platforms and into apps that bring near at hand, or at one's fingertips, all the novelties and chats that one could possibly want (under determinate circumstances) in what could be considered to be a very lively everyday life indeed.

For Heidegger (1996 [1927]), as he repeatedly underlines, his analysis has a "purely ontological intention and is far removed from any moralizing critique of everyday Dasein and from the aspiration of philosophy and culture" (p. 156). It is, however, easy to see, considering Heidegger's use of words like 'fallen' (also at times translated as inauthentic), distraction and chatter, why his analysis of the everyday mode of being is often conceived of in a pejorative manner. To me, there indeed is more than a hint of moralising critique. Everyday life is presented, here, as that which *does not* matter and keeps one from the things that *do* matter: the circumspection of the work-world that comes with some kind of focused attention and the contemplation of existence provoked by agnuish (because one is 'being-towards-death') or boredom (because life in itself is meaningless). Recall that Turkle's analysis similarly evolved into a concern about a lack of authentic interactions, focused work, and contemplation due to our use of 'always-on/always-on-you' devices. Both Heidegger and Turkle, seen from this perspective, bemoan everyday life's curiosity and chatter while pretending to perform, respectively, an ontological and an empirical analysis.

I have two remarks in light of these observations. First, I don't think Heidegger's ontological (and moralising) claims concerning the in-authenticity of everydayness and the need for reflection based on an attunement to anguish or boredom can be maintained in any Marxist inquiry (such as mine). In his pioneering book *The Critique of Everyday Life* (2002 [1947]), Lefebvre already writes, targeting Heidegger (and, to a lesser extent, Sartre), that "we should not take such 'profound' theories too seriously" (p. 125). A critique of everyday life

should not contrast everyday existence to so-called higher or deeper moments of understanding but, rather, implies a "rehabilitation of everyday life" and, by extension, a "rehabilitation of the masses" (i.e. the they, the one) (2002 [1947], p. 127). "Man must be everyday," he (2002 [1947]) writes, "or he will not be at all" (p. 127). It is precisely in everyday life where all that is good and bad, positive and negative, about any social situation resides.

Second, I think it is paramount to grasp any social situation both positively and negatively all at once (see also Jameson, in Stephanson 1988, pp. 12–13). The task at hand is to go from a moralising criticism of that which can be seen as 'negative' (dressed up as 'neutral' ontological or empirical analysis) to a 'positive' rehabilitation of these very same forms of everydayness so that we can arrive at a 'neutral' core (which can perhaps be better described as a dialectical unity of opposites). It's ironic that the way to do so is precisely by moving from an ontological analysis to a philosophy of culture or, rather, by re-evaluating Heidegger's fallen modes of being – curiosity and chatter – in the context of the urban mode of production and hybrid space. This is where Virno comes in. He (2004) sets out from the observation that, according to Heidegger,

> One who chatters and abandons oneself to curiosity *does not* work, is diverted from carrying out a determined task and has suspended every serious responsibility for "taking care of things". This "one" […] is also *idle.* The world-workshop is transformed into a world-spectacle. Let us ask ourselves this question: Is it true that idle talk and curiosity remain confined to the realm of free time and relaxation, outside of labor? (p. 89)

The answer is, of course, no. In a social situation in which labour and life, economy and culture, have become inseparable, chatter and curiosity have become "the pivot of contemporary production" (2004, p. 89). The affective, cognitive, and communicative capacities and resources of the multitude depend on, and are grown by, precisely this ability to draw on, and validate, the shared thoughts and feelings that make up idle talk, the impetus of the new brought by curiosity, and the ability to negotiate continuously changing environments, projects and people. Chatter and curiosity have become, in other words, the necessary conditions for the creation of immaterial goods and the cultivation of aleatory encounters (in a social and a spatial sense).

It can be argued, in sum, that the universal opportunism of hybrid space, with its endless chatter, curiosity and distraction (seen both negatively and positively) points to a structure of experience that is not so much characterised by an endless suspending of boredom (or anguish, for that matter) but, rather, by a manic restlessness. This manic restlessness has become both the engine of the double social production that characterises the urban mode of production and the constitutive experience of hybrid space as it is directly lived in everyday life. If there is any machine that is the preferred machine of the mega-machine that is the urban mode of production, it must surely be the 'user-mobile-interface' assemblage.

1.6 Openings and Conclusions

In this chapter, I argued that hybrid space is a function of, and functions within, the urban mode of production. This mode emerged in the 1960s, matured alongside – or within the womb of – the post-industrial or informational mode, and became the dominant mode of production in the 2000s. This shift ultimately entails that (1) the city rather than the factory has become both the locus and the engine of production, and that (2) the focus of production has shifted from objects on assembly lines to subjects in networks. Production, crucially, increasingly depends on aleatory social and spatial encounters and the recombination of common forms of wealth.

I pinpointed – by studying history backwards – two passages to the present: The '1960s' and '1960s California'. The first indirect trajectory took us from the countercultural movements of the '1960s' to the subsequent incorporation of their aspirations within political economic forms of control and neoliberal forms of governmentality. The second trajectory zoomed in on '1960s California' and the convergence of computer technologies, cybernetic theories and countercultural aspirations that culminated in what could be described as the Californian Ideology and its associated forms of algorithmic governmentality.

As a result, I argued, the urban mode of production can be characterized by the double production of social relations, hybrid space and subjects. This double production stems from, and results in, two seemingly contradictory yet fully compatible logics that intertwine the 'for benefit' logic of common associations and the 'for profit' logic of market associations, while maintaining an ideological blockage concerning the public logic of the state. This double production of social relations and subjectivity, as mediated by hybrid space, can be best described by means of two archetypes: the entrepreneur-cum-consumer-of-the-self on the one hand and the user-cum-commoner on the other hand.

I also analysed hybrid space along the axes of the lefebvrean triad by critically re-evaluating the ideological construct of networked individualism (that we encountered in the previous chapter) from the 'noisy sphere' of production and in the context of the networked dividual. I revisited last chapter's common sense notions by arguing that the mode of cooperation of the urban mode of production and, by extension, hybrid space should be characterized as an *urban operating system* (instead of a networked operating system), that the dominant representation of space is a *software-sorted city* (rather than a transparent space), and that, lastly, the structure of experience corresponding to 'always-on/always-on-you' devices can perhaps be best described as a *manic restlessness* (rather than post-boredom).

In Part II, these arguments, themes and tropes will regularly resurface. I for instance analyse in detail the representation of the increased capacities of networked bodies (chapter 3) and dividualising user profiles (chapter 4) by means of a critique of interfaces (and their various forms of appellation) as conceived by locative media artists and app developers. These interfaces invariably aim to recombine common forms of wealth and stimulate social and spatial aleatory encounters as a much as they re-mediate our conceptions of space (in the sense of cognitive mapping) and the lived experience of space (in the sense of post-boredom or manic restlessness).

PART II
Representations of Hybrid Space: Networked Dividualism

> Representations of space: Conceptualized space, the space of scientists, planners, urbanists, technocratic subdividers and social engineers, as of a certain type of artists with a scientific bent…
>
> - H. Lefebvre, *The Production of Space*, 1991[1974], p. 38

CHAPTER 3
NETWORKED BODIES
The Aesthetic Regime of Hybrid Space

> There is no straight way from looking at a spectacle to understanding the state of the world, no straight way from intellectual awareness to political action. What occurs is much more the shift from a given sensory world to another sensory world which defines other capacities and incapacities…
>
> – J. Rancière, 2008, p. 12

> The future of art is not artistic, but urban.
>
> – H. Lefebvre, 1996, p. 173

3.0 Introduction

In this chapter I discuss two waves of locative media art, i.e. the art practice that has as its medium an assemblage of unscrambled GPS signals and proliferated mobile interfaces. The first wave of locative media art emerged in the early 2000s. Its main works predominantly focus on people and their environments, including Esther Polak's *Amsterdam Real Time* (2001), Jeremy Wood's *GPS drawings* (2001–ongoing), Blast Theory's *Can You See Me Now* (2001), Christian Nold's *Bio Mapping* (2001–ongoing) and Proboscis' *Urban Tapestries* (2002–2004). These works have since become part of something akin to a locative canon. The second wave of locative media art emerged in the mid- to late 2000s. It can be seen as a reaction to the first wave insofar it insisted on including non-human subjects in its assemblages, including blogging pigeons (DaCosta, 2006), litter-collecting crows (Klein, 2008), arborical (Jeremijenko, 2004) and aquatic (Jeremijenko, 2009) interfaces, or the secret life of consumer goods (Polak, 2005).

These waves of locative media art interest me, here, as they can be seen as so many attempts to find useful or interesting applications for the assemblage of GPS Signals, mobile interfaces and ordinary users that increasingly became part of everyday life over the course of the 2000s. In this sense the artists working with these new consumer technologies could be seen as exploring and anticipating today's situation in which, especially, mobile and locative interfaces have become ubiquitous. So what is at stake in this chapter is the analysis of the

representation of hybrid space, and its public spaces, by "a certain type of artist with a scientific bent" (Lefebvre, 1991 [1974], p. 38): locative media artists.

In this chapter's first section, 'Locative Media Art', I discuss two interrelated "technological frames" (Bijker, 1989, pp. 168, 171–174) that have been used to come to terms with, and shape, the medium and its applications. Locative media artists, especially those of the first wave, are often seen, not least by the artists themselves, as part of a lineage that can be traced back to the 1960s situationist avant-garde. Critics have pointed out that they may be better regarded as avant-gardes of the society of control. I argue that the latter frame does not exclude the first frame. Rather, the situationist-frame incorporates and departs from the control-frame.

In the second section, 'We've Got Ourselves a Situation', I discuss the situationist frame in detail – i.e. its main theoretical tenets and practical applications – and the ways in which it has informed and shaped many of the tools and techniques of the burgeoning locative media art scene of the early 2000s. In doing so, this section allows me to further introduce the field of locative media and the socio-cultural possibilities these art projects anticipated as much as it enables me to show the merits and limitations of what can be called digital situationism. For me, its interest lies precisely in the fact that it indeed considered contemporary techniques of cybernetic control and algorithmic governmentality as a given, yet harked back to 1960s counterculture in order to mobilise the 'social imaginary' (Castoriadis, 1975). This closely mirrors the broader social history and double cultural logic of hybrid space that I outlined in the previous chapters.

The critical discussion and theoretical exploration of the situationist framing of locative media art practices does allow for a better understanding of the ways in which the social imaginary concerning unscrambled GPS signals and proliferated mobile interfaces got mobilised. The situationist frame has heuristic and historical value in the sense that it has been pivotal to the process of representing the social and technological affordances of networked bodies in hybrid space in the early 2000s (and these spatial representations have, in turn, informed the business models of mobile platforms and location-based apps). Yet the turn to situationism also betrays a certain nostalgia for a time when situationist techniques could still be the critical instrument of a political avant-garde to criticise, and change, everyday life and social space (see, also, Tuters, 2009). This is odd.

In the third section, 'Nostalgia of the Avant-Garde', I argue that the preferred way of life in the urban mode of production, as well as its hybrid space, is, in fact, situationist, with its structural emphasis on autonomy, aleatory encounters (in a social and spatial sense) and

creativity in a "mobile civilization" (Chtcheglov, 2006 [1953], p. 4). If anything, then, digital situationism encapsulates – rather than criticises – the double logic of hybrid space.

In the fourth section, 'Redistributing the Sensible', I pick up on a suggestion made by the critics Benjamin Bratton (see Bratton and Jeremijenko, 2008) and Marc Tuters (2009), who proffered that Rancière's notion of the distribution of the sensible rather than Debord's notion of the constructed situation might be a more fruitful starting point to conceptualise a second wave of locative – or post-locative – media. The aim of this section is to elaborate upon these remarks and to develop them into a coherent theoretical framework that accounts for the new aesthetic regime of social space. Rancière's notion of a 'distribution of the sensible' points to three major aesthetic regimes, i.e. certain ways in which the sensible – that which can be said and seen and is common to a community – *has been* and *can be* distributed. These aesthetic regimes are characterised by their own, interrelated, forms of politics and art. "There is no art", Rancière (2009) writes, "without a specific distribution of the sensible tying it to a certain form of politics" (p. 44). The main assumption of his work is, then, that the forms of art within a specific aesthetic regime express the forms of politics within this regime, and vice versa. Rancière identifies three aesthetic regimes of art and politics, i.e. the ethical regime of aesthetics, the representative regime of aesthetics and the aesthetic regime of aesthetics. I contend that the first waves of locative media art could be seen as an anticipation of the emergence of the logic of the aesthetic regime of aesthetics in contemporary public space. Rancière's oeuvre, in other words, should not only be used to conceptualise the second wave of post-locative media art. Quite the contrary. His writings contain valuable cues to come to terms with the significance of the *entire* locative media art scene, including the earlier works of the first wave, and point towards new distributions of the sensible of, and within, public space made possible by unscrambled GPS signals and proliferated mobile interfaces.

In the fifth and final section, 'The Aesthetic Regime of Hybrid Space', I argue that the aesthetic regime of aesthetics emerges within a social space that has hitherto been dominated by the aesthetic regime of representation. This is not to say that the aesthetic regime substitutes for the representational regime. Rather, Locative media art practices anticipated, and provide a first glimpse of, a public space in which networked bodies are able to continuously *re*distribute the social sensorium of hybrid space. In hybrid space, seen from this perspective, users that would ordinarily be *in* public but *without* publicity are now able to *be* public and *form* publics (to varying degrees and to various audiences) and, hence, co-determine that which is common to the community. In this sense, locative media artists, as

well as their predecessors, provided 'figures of community equal to themselves' and anticipated what can be called a structural transformation of public space.

3.1 Locative Media Art

For *Amsterdam Real Time* (2001), one of the earliest and most often cited examples of locative media art, the daily routes of about sixty commoners, equipped with GPS devices, were displayed as dots, traces and lines on a black screen over the course of several weeks. Over time the patterns on the screen began to resemble the contours of Amsterdam's inner city, as its main passageways, switch stations and canals slowly but surely appeared in chiaroscuro (see figure 3.1). In this way, the map made visible the daily expenditure of energy in urban space rather than the city's static geography. It could not be used to find this or that house in this or that street, but it could be used to read the ebbs and flows of mobility, the repetitions in time and space, and the variations on urban themes. It conveyed, in sum, the polyrhythmic qualities of the city.

Not only did *Amsterdam Real Time* display the aggregated routes of all of the participants on a black screen; it also tracked, traced and mapped the daily itineraries of individual commoners (see image 2). These itineraries, evolving in real time, showed the habitual trajectories and quirky divergences of the city's users as they went about with their daily lives. Some roamed widely over the urban territory. Others stayed within the confines of a single neighbourhood. Yet most, if not all, visualisations started to convey recurring patterns of mobility. As time went by, the lines indicating well-traversed routes got brighter and thicker and the dots displaying often-frequented locations turned first yellow then red, indicating that the participants seldom got off the beaten track. The single exception to this rule was the guy who used his device to sketch the outlines of a pigeon (see image 3).

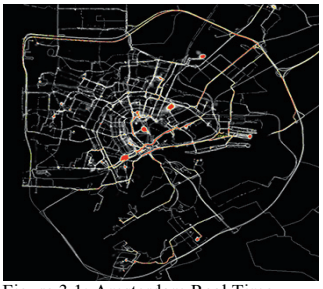
Figure 3.1: Amsterdam Real Time

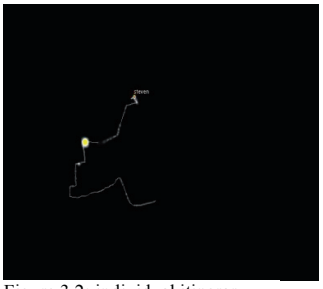
Figure 3.2: individual itinerary


Figure 3.3: pigeon drawing

Upon being confronted with their personal maps, representing their every move, the participants showed somewhat mixed emotions, lingering between fascination and shock. The sense of recognition, triggered by seeing one's private routes and intimate geographies, either evoked joyful memories of spatial stories or provoked fearful thoughts of urban surveillance. This combination of joy and fear upon seeing, for the first time, an image of one's personal life, mediated by a new technology, is not uncommon. It reminds us, for instance, of the 19th century awe for photography and the discussion about whether photographic images captured life or stole one's soul. "That is an important part of the project", the artist Esther Polak (2008) once said in an interview.

> The basic emotion that you have when you see yourself for the first time from out of space, from above and leaving a trace […] That is my fascination; I like to articulate this feeling in an artistic manner […] it has very rough material, just basic astonishment (wow this is me!) […] I think it's very comparable with the people that saw the first photographs.

This might seem slightly exaggerated. Yet it is only with our eyes, and with the benefit of hindsight, that location-based media can be seen as ordinary features of the urban everyday. Around the turn of the millennium, the use of the Global Positioning System in portable devices was nothing more than an emerging technology, a rare sight, opening up new possibilities that were as exciting and frightening as they were extraordinary (see also Van den Akker, 2014).

In 2003 Kalnins and Tuter coined the notion of locative media during a workshop in Latvia to describe a first wave of art projects experimenting with these new technological possibilities (Tuter, 2009). Although the notion has subsequently been used to cover a growing body of work, this first wave constitutes something akin to a locative canon, as these early projects are cited, time and again, in discussions about locative media art. The most common examples – besides Polak's *Amsterdam Real Time* (2001) – include Jeremy Wood's *GPS drawings* (2001–ongoing), Blast Theory's *Can You See Me Now* (2001), Christian Nold's *Bio Mapping* (2001–ongoing) and Proboscis' *Urban Tapestries* (2002–2004). These works use location-aware mobile devices and cartographic techniques to visualise the otherwise invisible qualities of the city, foster social – often non-utilitarian and playful – interaction in public space, and/or annotate urban spaces with user-generated layers of folk knowledge (Hemment, 2004; Tuters and Varnelis, 2006; Galloway and Ward, 2006).

Throughout this chapter I will discuss these and other examples from this "heroic period" of locative media art, as McGarrigle (2012, p. 26) put it, to discuss the emerging techno-social affordances and the perceived socio-cultural possibilities of hybrid space.

3.1.1 Framing Locative Media Art

The mixed reactions of the participants in *Amsterdam Real Time* to the visualisations of their daily routes neatly correspond to the overall tension that runs through the debates on, and the works of, locative media artists. This tension is caused by the friction between the two notions of location pivotal for locative media art. Location, here, refers at once to a monitored position, related to a coordinate in time and space, and a practiced place, related to an embodied experience of time and space. The first conception, location as monitored position, is often evoked to perceive locative media artists within a frame that can be described as "the avant-garde of the control society" (see, especially, Broeckman, 2004). By experimenting with the use of the Global Positioning System, a technology developed by the military-industrial complex, locative media artists are said to anticipate or, even worse, further new forms of control. The second conception, location as embodied space, is often evoked to frame locative media as the avant-garde of the situationist city (see, for instance, Farman, 2012; McGarrigle, 2012). It should be noted that these different conceptions of location – that is: as monitored position and as spatial practice – and their associated frames – i.e. locative media artists as either the avant-garde of the control society or the situationist city – can be distinguished in theory, yet that they often cannot be separated in practice. Esther Polak (2007) once explained, for instance, that *Amsterdam Real Time* uses both technologies that "observe you and control your movements" and the technique of "the situationist derives." Yet taken together they hint at a very fundamental tension that runs both through the locative media art practices under discussion in this chapter and the everyday practices of ordinary users that we discuss in the following chapters.

I use the notion of 'frame' deliberately; it refers to the notion of "technological frame" first developed by Bijker (1989). "A technological frame", Bijker (1996) explains,

> structures the interactions between the "actors" of a relevant social group. […] It is built up when interaction "around" a technology starts and continues. Existing practice does guide future practice, though not completely deterministically. The concept of "technological frame" forms a hinge in the analysis of socio-technical ensembles: it sets the way in which technology influences interaction and thus shapes specific

> cultures, but it also explains how a new technology is constructed by a combination of enabling and constraining interactions within relevant social groups in a specific way (p. 27).

We have already seen an example of such a technological frame in the previous chapter. In 1990s Silicon Valley, the New Left and the New Right provided two seemingly different yet fully compatible frames that converged in a technological frame that can perhaps be best described as the Californian Ideology. It is this technological frame that enables and constrains the interactions between social groups – the hackers, engineers, investors, and corporations working in Silicon Valley, or as 'Silicon Valley' – that shape the look, feel and functionality of many of the platforms and applications that are so ubiquitous in our everyday lives. When zooming in on the first wave of experimentation with unscrambled GPS signals and proliferated mobile interfaces, we also find two frames that are different yet compatible and converged into a single technological frame. As stated, these frames both set out from a theoretical and practical emphasis on location, yet they are underpinned by different *conceptions* of location – i.e. location as monitored position and location as practiced place or spatial practice.

3.1.2 The Avant-Garde of the Control Society

The frame of the avant-garde of the control society can be traced back to remarks made by Andreas Broekman (2004). He refers, here, to Gilles Deleuze's influential essay 'Postscript on the Society of Control' (1992), which we discussed in chapter 2, and must be read as an update, as it were, of Foucault's work on discipline in the context of urban societies. "The conception of a control mechanism", Deleuze famously wrote, "giving the position of any element within an open environment at any given instant (whether animal in a reserve or human in a corporation, as with an electronic collar), is not necessarily one of science fiction" (1992). Deleuze hints, here, at the reconfiguration of the enclosed "striated" disciplinary environments of industrial times and the emergence of relatively open "smooth" environments that constitute the social spaces of what I described in chapter 2 as the urban mode of production (and its associated forms of social and economic production and exchange). The relative smoothness of social space – i.e. in the sense that its smoothness is relative to the political-economic and power relations of class and age, gender and sexuality, race and ethnicity, and so on – depends, in the context of our discussion of locative media and mobile interfaces, on the accumulation of data (through trackers, sensors, clicks and so on)

and construction of user profiles that enable the modulation of social space. This modulation can then be defined as the adjustment of the possibilities and constraints of any given situation depending on the assessment of risk status and/or profitability level of this or that user profile.

Seen from this perspective a project like Christian Nold's *Bio Mapping* (2001–ongoing) (figure 3.4 and figure 3.5) could indeed be conceived of as a very useful tool in the context of biopolitical production and cybernetic control. For this project Nold equips participants with a portable device that tracks their location and measures their emotional response, resulting in data about time, place and levels of, say, stress, anxiety or tranquillity.

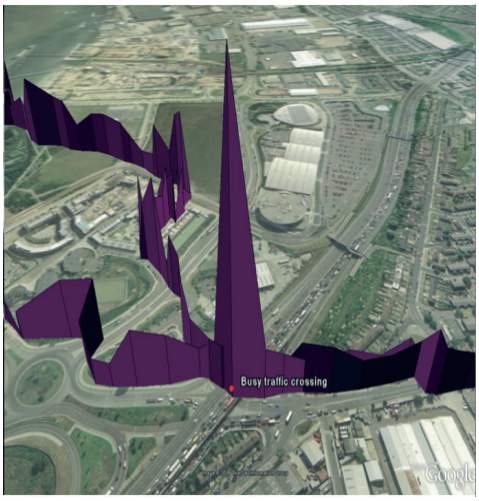

Figure 3.4: "Typical visualisation of Bio Mapping data […]. The height of the track indicates the physiological arousal at that point. The annotation was made by the participant" (Nold, 2009, p.13).

Figure 3.5: "The Bio Mapping device: GPS - left, fingercuffs - top and data logger on the right" (Nold, 2009, p.3)

Such data may very well be of interest to employers concerned about the 'well-being' of their employees (seen as worker profiles) in the light of short-term and long-term productivity as it can enable algorithmic interventions related to anything from fine-tuned processing speed to optimised workload distribution to balanced work-life activities (or something along similar lines). These are not dystopian or utopian scenarios at all (the choice between the former or the latter option depends on your politics, of course). Consider, for instance, the work done on "social physics" in the office environment by Pentland (2014). Pentland outfits office workers with so-called socio-metric badges to collect big data on the interactions of office workers. The badges measure "the amount of face-to-face interaction, conversational dynamics (e.g. turn-taking patterns, tone of voice, etc.), physical proximity to other people, and physical

activity levels using social signals derived from vocal features, body motion, and relative location" (see Pentland, 2017). Why? To find out the patterns that play into satisfying productivity levels (see also Rothman, 2014). As the science fiction author William Gibson argued, we are living in an era that is beyond the wildest scenarios of science-fiction itself (see Jones, 2011).[5]

By framing locative media artists as an avant-garde of the society of control, Broekman articulated a critique of locative media art that centres on a perceived lack of critical distance viz-a-viz the technologies of surveillance and control in which the medium is rooted as well as the practices of surveillance and control it foreshadowed, anticipated and perhaps even informed. Locative media artists should have, and have not, specifically and critically addressed the technological origins and conditions that made their art practices possible in the first place. Whether the locative media art scene does indeed not address such concerns is highly debatable. The examples of Polak's *Amsterdam Real Time* and Nold's *Bio Mapping* show that it does or, at least, that it is capable of doings so, in its most interesting and multi-layered works and projects (see also Van den Akker, 2014). It is also highly problematic. As shown by the social history of the internet, a technological system with the same – so-called dubious – origins, the moment a technology goes public, ordinary users, as well as businesses, begin to look for, and develop, applications that can be used in everyday life. For locative media and mobile interfaces, that moment came with the proliferation of mobile interfaces and the unscrambling of GPS signals around the turn of the millennium. The first wave of locative media art should therefore be seen as so many attempts to experiment with *alternative* uses for global satellite and mobile communication networks. As Tuters (2004) rightfully argued,

> The self-conscious locative artist treats the technology tactically, starting from an assumption that the technology not only tracks you, but in fact, that it is tracking you, and work backwards from a frank acceptance of the existing society of control to develop useful hacks.

Framing locative media art as the avant-garde of the control society pre-emptively forecloses, then, any possibility of a critical discussion or a theoretical exploration of locative media art practices.

[5] "[his latest novels] are set in a world that meets virtually every criterion of being science fiction, but it happens to be our world" (Jones 2011).

3.1.3 The Avant-Garde of the Situationist City

This brings us to the second technological frame; the frame that is underpinned by the notion of location as place. Locative media artists who explore the tactical usage of proliferated mobile interfaces and unscrambled GPS signals have often been framed as the avant-garde of the situationist city (see, most recently, Farman, 2012; McGarrigle, 2012). The Situationist International (SI) was a '1960s' avant-garde group that criticised the incorporation of everyday life into the commodity-logic and hyper-functionality of the post-war redevelopment of social space. By facilitating spatial and cartographic annotation, random discoveries and spontaneous encounters, locative media artists are often said to imitate the avant-garde attempts of Guy Debord *cum suis* to construct so-called 'situations' in the urban environment. "Broadly speaking", Tuters and Varnelis (2006) most famously argued,

> locative-media projects can be categorized under one of two types of mapping, either annotative – virtually tagging the world – or phenomenological – tracing the action of the subject in the world. Roughly, these two types of locative media – annotative and tracing – correspond to two poles of late-20th-century art, critical art and phenomenology, perhaps otherwise figured as the twin Situationist practices of détournement and the dérive (p. 359).

It could be argued that the use of military GPS technology, corporate base maps (such as those of Google) and consumer-oriented smart devices (such as the iPhone) is wholly opposed to the Situationist ethos. This is absolutely not the case. If anything, the situationists insisted that the construction of situations "required *a new application* of reproductive technologies" (Debord, 2006 [1957], p. 41; my italics) – both those of their day and age and those of a future to come. They were not opposed to mass media, communication technologies and cybernetics, but rather sought to appropriate these technologies for situationist ends. In 'Report on the Construction of Situations' (2006 [1957]), Debord wrote:

> "One can envisage, televised images of certain aspects of one situation being communicated live to people taking part in another situation somewhere else, thereby producing various modifications and interferences between the two. More simply, a new style of documentary film could be devoted to current "events" that really are current and eventful by preserving (in situationist archives) the most significant

> moments of a situation [something akin to a curated YouTube account avant la lettre - *RA*] (p. 41).

Similarly, they made films, planned city-wide dérives using walkie-talkies, and speculated about the uses of "telex, computers and television, etc" for self-organisation (Vaneigem, 2006 [1969], p. 369; see also Sadler, 1999 and Stanek, 2012). We can be pretty sure, therefore, that the situationists would have embraced contemporary technologies such as networked smart phones if they had been available at the time.

3.1.4 Digital Situationism as Technological Frame

In sum we could argue that the technological frame that shaped the first wave of artistic explorations of the assemblages of humans, unscrambled GPS signals and proliferated mobile interfaces, in its very first formulations, revolved around an acknowledgement of the inevitability of cybernetic control as much as it modelled itself to a situationist critique of social space. As stated, the list of commentators comparing the theories and practices of the situationists to locative media art, and vice versa, is seemingly endless (see also Chang, 2006; Sant, 2006; Tuters and Varnelis, 2006; Miranda, 2007; Paraskevopoulou et al., 2008; Flanagan, 2009; Rieser, 2009; Wershler, 2010; De Lange, 2010; Toft, 2011). McCarrigle notes, for instance, that "the influence of the situationists is evident in Locative Media at both an explicit and implicit level" (2012, p. 148). So much so, indeed, that locative media art seemed to be, if anything, a rebirth of situationism out of the spirit of mobile ICTs. In this sense locative media artists incorporated, and departed from, the control-frame in a quest to both hack the dominant operating system of cities and construct situations that temporarily allow for social relations – and hence a sociality and a spatiality – that is not overdetermined by state administration and market regulations. They set out to explore – in a situationist vein – temporary pockets of utopian possibility and post-capitalist subjectivity within the interstices of a social space that increasingly tended towards algorithmic predictions and modulating interventions. It is therefore safe to say that the technological frame that most shaped the ways of doing and thinking about the first wave of locative media art can be described as digital situationism.

3.2 We've Got Ourselves a Situation

We established that the loosely connected scene of locative media artists is often perceived, not least by itself, as the contemporary heir to the legacy of the Situationist

International. Generally, to repeat the classification of Tuters and Varnelis, locative media art projects are said to "correspond to two poles of late-20th-century art, critical art and phenomenology, perhaps otherwise figured as the twin Situationist practices of détournement and the dérive" (2006, p. 359). This is more or less correct. In the following, however, I discuss the situationist tendencies of locative media art by including the notion of psychogeographic mapping, alongside dérive and détournement. Although these categories partly overlap, and are at times interchangeable, they allow me to discuss the three characteristics that have come to define digital situationism over the years. These three characteristics could be described as the organisation of playful and spontaneous encounters (in a social and spatial sense), spatial annotation, and alternative forms of mapping lived experience.

3.2.1 The Drift: Organising Spontaneity

First of all, the situationists and locative media artists share an interest in diverting, subverting or imagining anew the spatial codes of conduct and the ordinary urban experience by drifting ('dérive') through the cityscape. For the situationists, the drift was both "a passional journey out of the ordinary through a rapid changing of ambiences, as well as a means of psychogeographical study" (Debord, 2006 [1957], p. 40). Drifts were, in other words, as much a part of their psychogeographic research as they were artistic – so-called "playful constructive" – interventions in public space. "In a dérive", Debord (2006 [1958]) wrote in his almost studious notes on the theory and practice of drifting,

> one or more persons during a certain period drop their relations, their work and leisure activities, and all their other usual motives for movement and action, and let themselves be drawn by the attractions of the terrain and the encounters they find there (p. 62).

On the one hand the drift constituted the preferred method for the psychogeographic study of urban space, aiming to "arrive at objective conclusions" about the daily experience of the city (Debord, 2006 [1958]), p 63). To this end, the drifts were meticulously documented, methodologically assessed, and then used to inform something akin to a drifter's handbook. Everything got documented – the average length of a dérive ("one day, considered as the time between two periods of sleep"), its preferred spatial field ("precisely delimited or vague,

depending on the goal"), the number of participants ("all indications are that the most fruitful numerical arrangement consists of several small groups of two or three") and the "lessons drawn" from all this wandering about the city (Debord, 2006 [1958]), pp. 62–66). On the other hand the lessons learned were then used to plan elaborate drifts through the city. These drifts constituted the preferred method for 'organising spontaneity' in both the social and the spatial sense. Whilst drifts were supposed to break with the daily routines of city living – the boredom-inducing treadmill of '*metro-boulot-dodo*' – and unleash desires other than work, consumption and family life, the situationists had, in other words, no use for mere chance in their aspiration to change everyday life. "From a dérive point of view", Debord, (2006 [1958]) noted, cities have psychogeographical contours, with constant currents, fixed points and vortexes that strongly discourage entry into or exit from certain zones" (p. 62).

As these psychogeographical contours could be attractive for all the wrong reasons, it was not enough to let oneself be drawn by whatever it was that came into one's path. The established psychogeographical contours of the landscape needed to be changed by rediscovering, if not constructing, the city's possibilities for a way of life undetermined by state regulations and market imperatives. (It is for this reason that the situationists had an unbridled fascination for those urban spaces and spatial practices that were still – or temporarily – unaffected by the post-war attempts to turn the city into a rationally planned spectacle for the growing middle-class.) The dérive promised "a new mode of behaviour" in public spaces, which centred around a more or less planned but "playful creativity" that furthered "the human evolution of sentiments like love and friendship" (Debord, 2006 [1957]), p. 40). It aimed, we could say, for a social production of social space unencumbered by the utilitarian strategies of government agencies and market parties. Many artists and critics evoke this notion of the dérive to explain and legitimise locative media art. The work of Blast Theory is by many considered to be a case in point.

Figure 3.6: hybrid game *Can You See Me Now?*

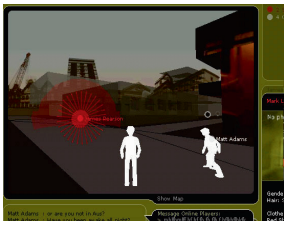

Figure 3.7: hybrid game *Uncle Roy All Around You*

Figure 3.8: hybrid game *I Like Sam*

Lushetich (2007), among others, notes that the work of Blast Theory is "largely indebted to the Situationist International" (p. 6; see also Farman, 2012, p. 87). Blast Theory's by now classic games such as *Can You See Me Now* (2001 – figure 3.6), *Uncle Roy All Around You* (2003 – figure 3.7) and *I Like Frank* (2004 – figure 3.8), for instance, are often said to encourage chance encounters and random discoveries. Staged in both the physical and the digital world, these projects use elements of chase games and treasure hunts, question-and-answer and hide-and-seek to trigger participants to experience anew a familiar, all too familiar urban space and to be open to unexpected meetings with strangers (in the hope of forging new social ties, friendships even). These and other locative art projects seek, in other words, to construct situations in which the parameters of everyday space, which mediate the ordinary experiences of the environment, time and other people, are not so much altered, but temporarily displaced, opening up the possibility of a more spontaneous experience of the city, beyond utilitarian motives and routine activities.

3.2.2 Détournement: Annotating Space

The second practice situationists and digital situationism share is spatial annotation. Many locative media projects allow participants to annotate the representational spaces of the city with information, knowledge and images of their own choosing, an act that is ultimately suggestive of détournement ('diversion, subversion'). Détournement can be described as either a juxtaposing of an already existing cultural text – film, advertisement, and even the built environment itself – with other already existing cultural texts (collaging), or a re-signifying of such an already existing cultural text by means of a newly created semiotic layer (overwriting). As an example, one could think of the situationists' détournement of old maps, which, as discussed below, includes both these techniques. Similarly, one could think of the use of graffiti to alter the meaning of, say, billboards, monuments and street signs (see, for instance, SI (2006 [1969]), p. 333; and Sadler, 1999, pp. 96, 107). "The two fundamental laws of détournement", it is explained in *Détournement as Negation and Prelude* (SI, 2006 [1959]),

> are the loss of importance of each détourned autonomous element – which may go so far as to completely lose its original sense – and at the same the organization of another meaningful ensemble (p. 67).

It can be argued that these meaningful ensembles, or assemblages, were intended to uncover, if not recover, the wealth of folk knowledge that seemingly got lost under the pressure of a burgeoning consumer society. The practice of détournement was intended to show that ordinary people are not passive consumers of images or commodities, but that they are very much able to see through the deluge of spectacles, mock the intentions of official culture, and come up with their own meaningful interpretations and creations. This is a sentiment that is often expressed to describe the results of the various annotative projects that leave their mark on specific locations. Projects such *Urban Tapestries* (2002–2004) or *Yellow Arrow* (2004–present) allow participants to overlay everyday representational spaces with their personal observations, remarks or suggestions – anything really – for others to act upon or react to. Indeed, as Tuters and Varnelis (2006) observe, "annotative projects, such as the *Urban Tapestries* project by Proboscis, generally seek to change the world by adding data to it, much as the practice of détournement did" (p. 359). By scribbling in its margins or overwriting its surface, users of such annotation tools are able to add new semiotic layers with folk knowledge to the urban text, which can then be consciously retrieved or accidently stumbled upon when one happens to be on a specific location – from personal histories and collective memories to local wisecracks and spatial poetics.

3.2.3 Psychogeography: Mapping Lived Experience

The third practice situationists and the digital situationists share is an alternative, psychogeographic form of mapping. "Psychogeography sets for itself", Debord (2006 [1955]) once noted, "the study of the precise laws and specific effects of the geographical environment, whether consciously organized or not, on the emotions and behaviour of people" (p. 5). Psychogeographic maps aim to visualise, in other words, location as lived (rather than as a position in a Cartesian grid) by representing the ways in which social space and social time affect one's experience of the city. The canonical 'locative' example is Christian Nold's *Bio Mapping* project in which he equips participants with a portable device that tracks their position in time and space, measures their emotional response to the environment, and allows them to annotate the spaces they traverse (see Figure 3.4). He then asks them to take a long walk through the city. "The Bio Mapping device", he (2009) explains,

> is a portable and wearable tool recording data from two technologies: a simple biometric sensor measuring Galvanic Skin Response and a Global Positioning System.

> The bio-sensor, which is based on a lie-detector, measures changes in the sweat level of the wearer's fingers. The assumption is that these changes are an indication of 'emotional' intensity. The GPS part of the device also allows us to record the geographical location of the wearer anywhere in the world and pinpoint where that person is when these 'emotional' changes occur. This data can then be visualised in geographical mapping software such as Google Earth. The result is that the wearer's journey becomes viewable as a visual track on a map, whose height indicates the level of physiological arousal at that particular moment (pp. 3–4).

For the participants in the Bio Mapping project these cartographic visualisations form immediately recognisable representations of their experiences of urban space. To them the traces on the map represent their encounters with busy crossings or quiet underpasses and meetings with friends or foes. Taken together, however, these representations nicely indicate which spaces are much preferred or readily avoided as people stroll through the city.

We are reminded, here, of famous proto-situationist maps such as *Guide psychogéographique de Paris* (1956) and *The Naked City* (1957). Created by Guy Debord and Asger Jorn, these maps, as the former (2006 [1955]) explained, aim to represent

> The sudden change of ambience in a street within the space of a few metres; the evident division of a city into zones of distinct psychic atmospheres; the path of least resistance that is automatically followed in aimless strolls (and which has no relation to the physical contour of the terrain); the appealing or repelling character of certain places (p. 10).

Town planners, geographers and architects, the situationists argued, all too often neglect the psychological effects of their designs on the people actually inhabiting the built environment. According to Debord (2006 [1955]), however, these "neglected phenomena" depend "on causes that can be uncovered by careful analysis and turned to account" (p. 10). By using a "renovated cartography", the situationists sought to address this lack of critical attention (Debord (2006 [1955]), pp. 8–11). This renovated cartography aimed to represent the look and feel of streets, the atmosphere of city districts, and the subjective distances between this or that urban zone by creating collages out of fragments of old maps, aerial photographs and tourist guides, as well as reinventing the cartographic sign language. The *Guide*

psychogéographique de Paris, for instance, represented the city as a field of attractors, black holes and 'switch stations' ('*tournes de plaques*') in order to grasp the social and affective creation of social space rather than its abstract production. And *The Naked City* depicted Paris as a random collection of 'unities of ambience' ('*unité d'ambiance*') rather than a linear series of residential units ('*Unité d'habitation*') and other so-called modernist machines for living in.

3.3 Nostalgia of the Avant-Garde

The old and new 'situationist' maps are often described as being part of a lineage starting with the cartographic studies of the French social geographer Paul-Henry Chombart de Lauwe. In many of the writings dealing with the oeuvre of the Situationist International and/or the works of locative media artists we find references to his classic book *Paris et l'Agglomération Parisienne*, which contains numerous maps depicting the social and spatial patterns made by the city's inhabitants. His map of the daily routes of a Parisian student, to give but one example, is an oft-recurring example in the writings of Guy Debord and an oft-cited reference in discussions about the work of Esther Polak or Christian Nold (see, for instance, Tuters and Varnelis, 2006 and Farman, 2012, p. 50). These conscious references to the academic tradition point towards the analytic-scientific bent of the old and the new situationists. For them, the study of the impact of the environment on our experience of the city is an integral part of their artistic practice.

It is interesting to note, then, that locative media artists and critics have all but ignored an alternative psychogeographic tradition inspired by the work of social geographer Kevin Lynch rather than the work of Chombart de Lauwe. In his insightful *Lynch Debord* (2010), Dennis Wood notes that there are not one but two psychogeographies. He (2010) writes:

> Psychogeography emerged entirely independently in Paris in the 1950s and in the Boston area in the 1950s and 1960s, in the wildly disparate practices of the Situationists and of planners and geographers. At the same time that Guy Debord was creating psychogeography in Paris, MIT planning professor Kevin Lynch was laying the groundwork for what at Clark University in the late 1960s became psychogeography for David Stea and his students. Both practices were equally committed to the development of an objective description of the relationship between the urban environment and the psychic life of individuals, both depended heavily on walking as a method, and both produced maps that have become iconic (p. 185).

Kevin Lynch's classic book *The Image of the City* (1960), Wood notes, was the culmination of a series of studies, conducted in the 1950s, into the experience of the city and the psychological impact of the urban environment on walkers. For one study, for instance, Lynch and his research group at MIT "recorded the impressions of people as they walked through the city streets […] while actually moving through the city itself" (Lynch, cited in Wood, 2010, p. 190). For other studies, he asked people to express verbally or graphically their personal maps of the city, compiling dozens of intimate representations of urban space as memorised by its users. Lynch's 1950s studies and his *The Image of the City* were in many ways similar to Chombart de Lauwe's 1950s studies and his book on Paris. Similarly, Lynch inspired a group of alternative cartographers to experiment with what they would go on to describe as psychogeography, spawning numerous studies, maps and books concerned with the spatial and temporal experience of the urban environment (including Wood's own work).

It is revealing that locative media artists turn to 'Paris' rather than 'Boston' for inspiration and theoretical legitimatisation. Apparently, the critical panache of the situationist psychogeographers has more appeal than the analytic verve of the 'Clark' psychogeographers. 'Digital situationism' has been very influential as a technological frame, and therefore has influenced both the artistic practices of the locative media art scene and also, indirectly, a great many 'app' developers in the software industry. As we will for instance see in chapter 4, an application such as Foursquare directly taps into the situationist ambitions of spontaneous playfulness and spatial annotation (and turns it into a business model). Yet the turn to Paris rather than Boston also reveals some kind of nostalgia for the situationist critique of everyday city life and their avant-gardist experimentations with *other* forms of life that is out of place in contemporary hybrid space. Let me explain by making a detour along two hypothetical strands of today's 'digital situationism': pseudo-situationism and neo-situationism.

3.3.1 Pseudo-Situationist Nostalgia

First, it could be argued that the locative media art scene is not so much a continuation of the situationist legacy as it is its definite recuperation. Seen from this perspective, the legacy of the SI has simply become one of so many artistic traditions that can be recycled at will; a fancy reference that can be used to convey a certain look and feel and a name that can be commoditised and marketed. Locative media artists, then, appropriate this or that formal technique, quote a critical aphorism or two, and legitimise their position by selectively referencing such and such a situationist practice. They summon the "cult of the SI"

(Hatherley, 2010) not to voice a critique of the urban everyday, or to attempt to change it, but to lend some avant-garde chic to their works or writings. Such works and writings could be described as a pastiche of situationism. Pastiche, as the social theorist Fredric Jameson (1991) once argued, is "blank parody" by means of a "random cannibalization of the styles of the past" (p.18). He explained:

> Pastiche is, like parody, the imitation of a peculiar or unique, idiosyncratic style, the wearing of a linguistic mask, speech in a dead language. But it is a neutral practice of such mimicry, without any of parody's ulterior motives, amputated of the satirical impulse, devoid of any laughter […] (p. 17).

For Jameson, writing about postmodern cultural production, pastiche is everywhere, has to be everywhere, as artists (and the creative industries generally) face a world in the aftermath of the collapse of modernist ideas concerning collective ideologies and personal styles. In this situation, which can be described as post-ideological and post-authentic, the producers of culture tend to turn towards the past to pick out and unpick this or that element of the artistic canon, in order to incorporate it in their own work for decorative or ornamental purposes. Such artists operate, Jameson (1991), argues, within a 'nostalgia mode', which approaches a bracketed "past", to which one can no longer have direct access, through stylistic connotations that convey 'pastness', or rather, in this particular context, a "1960s-ness" version of radical chic (p. 19). Seen as such, locative media artists merely imitate, in a superficial manner, the oeuvre of the situationists. In doing so, they lift situationist practices – such as the dérive or détournement – out of their proper historical context in order to recreate, in the contemporary city, a neutralised, pseudo-situationist version of these practices, one that is devoid of any critical or utopian impulse. The irony would be, then, that such pastiche-minded locative media artists and critics, at least those that summon the cult of the SI, give in to the temptations of the spectacle precisely by restaging an emptied-out version of the situationist critique of the spectacle.

3.3.2 Neo-Situationist Nostalgia

Second, and related to the above, it could also be argued that the locative media art scene can *potentially* be seen as a continuation of the situationist legacy, if only the actors within this scene would stay true to the avant-garde ethos, purity and commitment of Debord cum suis. Seen from such a neo-situationist perspective, one that is equally mesmerised by the

cult of the SI, locative media artists can, and in some cases do, provide a critique of contemporary urban life while experimenting with other forms of life. This neo-situationist strand, however, also displays an unproductive nostalgia. As Jacques Rancière (2004) put it:

> The trajectory of situationist discourse – stemming from an avant-garde artistic movement in the post-war period, developing into a radical critique of politics in the 1960s, and absorbed today into the routine of disenchanted discourse that acts as the 'critical' stand-in for the existing order – is undoubtedly symptomatic of the contemporary ebb and flow of aesthetics and politics, and of the transformations of avant-garde thinking into nostalgia (p. 9).

These hypothetical neo-situationist critics and artists position themselves in a historical context that is no longer theirs, in order to sustain the illusion that they can transfer the critical and utopian content of situationist practices to the contemporary city. As stated, however, the situationists aimed to overcome a very specific form of urbanism, related to the post-war, Keynesian-Fordist reconstruction of the city. The urbanism they sought to revolutionise created rationally planned cities, rigid functional zones and a 'brut' machine aesthetic; it, literally, rolled over and fragmented whatever was left of the traditional, chaotic and congested city of old. Ironically, it is precisely the set of values the situationists promoted – autonomy, flexibility and creativity in and through a networked, "mobile civilization" (see Chtcheglov, 2006 [1953], p. 4) – that have become the dominant operating system of the urban mode of production (see chapter 2). Here, the irony then is that neo-situationist artists and critics are fighting, as most armies do, the last war, whilst not realising that their adversaries have changed and their weapons of choice have become outdated.

3.3.3 Two Dead Ends and a Point of Return

The roads travelled by these different strands of digital situationism lead towards two related yet contradictory dead ends. The pseudo-situationists are seduced by the nostalgia that comes with the practice of pastiche; the neo-situationists fall prey to a nostalgia that brings with it the practice of mourning. The first borrow the dead style of the situationists but lack – and cannot but lack – the situationist substance; the latter cling to the avant-garde ethos of Debord *cum suis* but ignore – and cannot but ignore – that the situationist style doesn't suit a world that has significantly changed. In sum, whereas the nostalgia of the pseudo-situationists leads them to take the situationists out of their historical context whilst shedding the critical

impulse, the nostalgia of the neo-situationists results in a critical purity that doesn't suit the historical context. The spectre of situationism that is haunting the locative media art scene seems to be summoned, then, by a nostalgic longing for a time when art could still be the instrument of a political avant-garde. This nostalgia is a rather unfruitful starting point for the conceptualisation of contemporary locative media art and hybrid space, and leads, as I hope to have shown, towards *a point of return*. In the next section I will therefore revisit the original scene of locative media art in order to explore another theoretical inroad, cleared by the writings of Jacques Rancière.

3.4 Redistributing the Sensible

Whereas the discourse surrounding the first wave of locative media art has been dominated by the frame of digital situationism, the theories and practices constituting the second wave of locative – or 'post-locative' (Tuters, 2009) – media art have been informed, and inspired, by a wider array of intellectual sources. The artists and critics of this second wave actively sought to move from a situationist critique to (1) a Latourian emphasis on the *composition* of assemblages of non-human actors and the internet of things and (2) a Rancierian emphasis on the '*re*distribution of the sensible' and the rearrangement of 'that which is common to a community' (see Bratton and Jeremijenko, 2008; Tuters, 2009). So for many of these artists and critics, the proliferation of blogging pigeons (DaCosta, 2006 – figure 3.9) and litter-collecting crows (Klein, 2008), arborical (Jeremijenko, 2004) and aquatic (Jeremijenko, 2009) interfaces, or the secret life of consumer goods (Polak, 2005) point to a possible future in which animals and things attain "citizenship" and constitute a "parliament of things" and non-human actors "become a part of the way the commons understands and narrates itself" (Bratton and Jeremijenko, 2008, p. 36; see also Tuters, 2009).

Figure 3.9. B. Da Costa, *Pigeon Blog*, 2006. "The project equips urban homing pigeons with GPS enabled electronic air pollution sensing devices capable of sending real-time location based air pollution data to an online mapping/blogging environment. Pigeonblog is a social public experiment between human and non-human animals (excerpt from the project website).

A case in point is Natalie Jeremijenko's oeuvre, which is structured around attempts to design interfaces or write scripts that will "facilitate interactions between humans and nonhumans" in order to give a voice to animals or things that populate the same environment as human

beings but are usually neglected (to the detriment of the latter) (Weiner, 2013). For *Amphibious Architecture* (2009 – figure 3.10 and 3.11) she – together with the architect David Benjamin – created an installation that enabled communication between the fish in New York's East River and the urbanites of New York City. The installation consisted of sensors both lighting a floating structure whenever fish were present and measuring some key characteristics of the river water. An SMS number then allowed passers-by to start a conversation with the fish by means of a text message. The fish would then reply with their own text messages, chatting about themselves and their surroundings: "Hey there! There are 11 of us, and it's pretty nice down here. I mean, dissolved oxygen is higher than last week" (Weiner, 2013). In this way, humans were made aware of the presence and state of New York's fish stock and the quality of the river water.

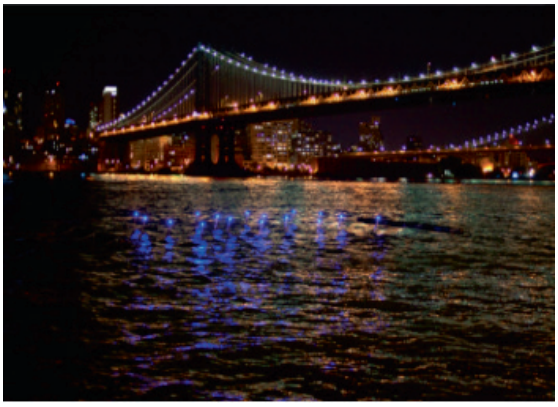

Figure 3.10: Installation view *Amphibious Architecture*

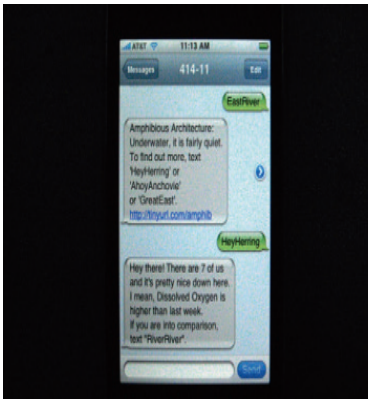

Figure 3.11: Human/non-Human Interface *Amphibious Architecture*

I agree that the shift from a situationist critique to Latourian composition is characteristic of the emergence of the second wave of post-locative art – and in a sense this should be seen as a response to the exhaustion of the situationist frame (as discussed in section 3). Yet I fail to see why Rancière's notion of a 'redistribution of the sensible' should only apply to the second wave of post-locative media art, especially since Rancière himself is mostly interested in the inclusion of previously excluded human actors (which, to be sure, doesn't foreclose the possibility of the inclusion of non-human actors). For me, his writings contain valuable cues to come to terms with the *entire* locative media art scene, including the earlier works of the first wave. So while I pick up on suggestions made by the critics Benjamin Bratton (see Bratton and Jeremijenko, 2008) and Marc Tuters (2009) in the context

of the second wave of locative media art, I contend that Rancière's notion of the distribution of the sensible (rather than Debord's notion of the constructed situation) better allows us to understand the changes in our experience of public space brought forth by proliferated mobile interfaces and unscrambled GPS signals. The aim of this section is, then, to elaborate upon the suggestions made by Bratton and Tuters and to develop them into a coherent theoretical framework that helps us to come to terms with what can be described as a structural transformation of public space.

3.4.1 …That Which is Common to the Community

For Rancière (2004), the distribution of the sensible is (and it's worth citing at length)

> the system of self-evident facts of sense perception that simultaneously discloses the existence of something in common and the delimitations that define the respective parts and positions within it. A distribution of the sensible establishes at one and the same time something common that is shared and exclusive parts. This apportionment of parts and positions is based on a distribution of spaces, times and forms of activity that determines the very manner in which something in common lends itself to participation and in what way various individuals have a part in this distribution (p. 12).

Put simply, any distribution of the sensible is a social sensorium in which some can and others cannot participate. Ultimately, it constitutes who or what can be seen or heard, felt or thought and, thus, who or what has a share in what is common to a community, and who or what doesn't. (This double connotation of the notion – i.e. inclusive and exclusive – is perhaps best conveyed by *le partage du sensible,* the original French term, which hints at a partaking and a partitioning of the sensible.) Unwittingly, as I argue below, the notion of the distribution of the sensible – as that which is common to the community and that which organises bodies – is a great description of the double logic (common/control) of the urban mode of production and the social production of hybrid space (provided that we link it to a specific regime of aesthetic identification).

Rancière develops the notion of the distribution of the sensible in the context of a wider argument concerning the relation between aesthetics, art and politics. This is not to say that he analyses the aestheticisation of politics or the politicisation of art. For him, crucially, art and politics are parallel yet interrelated spheres that operate according to a specific

aesthetic logic. “If the reader is fond of analogy”, he (2004) writes (and who isn’t), “aesthetics can be understood in a Kantian sense – re-examined perhaps by Foucault – as the system of a priori forms determining what presents itself to sense experience” (p. 13). In other words, the notion of aesthetics here refers to a certain way in which the sensible *has been* and *can be* distributed. On the one hand it refers to our immediate experience of a shared environment; on the other hand it directs our attention to the fact that the shared environment itself has been mediated by relations of power and capital (and can therefore be likened to the moments of perceived space and conceived space in Lefebvre’s spatial triad). Aesthetics, understood as a distribution of the sensible, can then be said to correspond to – and to be a function of – certain forms of politics and certain forms of art. Rancière (2009) for instance argues that the aesthetics at the core of the arts are related to

> the way in which the practices and forms of visibility of art themselves intervene in the distribution of the sensible, and its reconfiguration, in which they distribute spaces and times, subjects and objects, the common and the singular (p. 25).

This seems to be a rather straightforward observation. Artistic practices are ways of doing and making that include (or exclude) certain elements – colours or sounds, paint or objects, images or characters, etc. – that may have a bearing upon a shared sensorium.

For Rancière (2004), the aesthetics at the core of politics pertain to

> a delimitation of spaces and times, of the visible and the invisible, of speech and noise, that simultaneously determines the place and the stake of politics as a form of experience. Politics revolve around what is seen and what can be said about it, around who has the ability to see and the talent to speak, around the properties of spaces and the possibilities of time (p. 13).

The ‘politics of aesthetics’ (that is: the aesthetics of the arts) and the aesthetics of politics can then both be said to reveal and intervene in that which is *common* to a community; its distribution of the sensible. Locative media art, then, is good art, and has a proper politics, because it reveals that public space, and city life, has a very specific, and historically new, aesthetic logic (not because it is a form of digital situationism). So far, it should be noted, my outline of Rancière’s arguments is still in line with the arguments of Bratton and Tuters. There is, however, another, still untapped, theoretical layer within Rancière’s writings.

3.4.2 Aesthetic Regimes

Aesthetics, understood as a distribution of the sensible, also poses certain conditions to the becoming perceptible of certain forms of politics and art. In fact, as I wrote earlier, art and politics operate on and within the social sensorium that is common to a community according to a *specific* aesthetic logic. "This means", Rancière (2004) writes,

> that art and politics do not constitute two permanent, separate realities whereby the issue is to know whether or not they *ought* to be set in relation. They are two forms of the distribution of the sensible, *both of which are dependent on a specific regime of identification* [*my italics – RA*] (pp. 25–26).

There are two points to make, here. First, art and politics can only be seen as arts and politics when they are identified or recognised as such, based on what may be described as the *sensus communis* within a certain distribution of the sensible. What we perceive to be art (say, a tragedy) or politics (a slave revolt, for instance) may not look like art or politics at all to someone living in ancient Greece. Second, these recognised forms of art and politics share a variety of family resemblances that are proper to a specific distribution of the sensible. They express, in other words, its aesthetic logic. Art and politics are "conditional in character", and these conditions depend on the specificity and historicity of a certain distribution of the sensible (see Rancière, 2009, p. 26 and Rancière, 2004, p. 20).

Rancière distinguishes three major regimes of aesthetic identification in the Western tradition and, hence, three different ways in which the sensible has been and can be distributed. Each of these regimes of aesthetic identification is characterised by its own corresponding forms of politics and art. "There is no art without a specific distribution of the sensible tying it to a certain form of politics" (Rancière, 2009, p. 44). Rancière's ingenuity lays, therefore – and this is the main conceit of his work – in his capacity to let the regimes of art express the regimes of politics, and vice versa, in order to articulate specific distributions of the sensible. It should be noted in advance that these three regimes of identification are both historical and timeless. They are historical in the sense that they emerge, one after the other, during specific periods in the history of western societies. Yet they are timeless in the sense that they don't vanish when they are uprooted by an aesthetics whose time has come. As of today, in other words, these regimes co-exist, resulting in a constant tension between their aesthetics, arts and politics. As my entry point into the debate is predominantly the arts,

I will approach the three aesthetic regimes of identification by way of the arts or, put differently, the politics of aesthetics.

First, Rancière distinguishes an ethical regime of the arts. In this regime, which is exemplified by Plato, art is not identified as such. There are no artistic practices; only artisanal ways of doing and making that imitate reality. Here, Rancière (2004) writes that "there are true arts, that is forms of [practical] knowledge based on the imitation of a model with precise ends, and artistic simulacra that imitate simple appearances" (p. 20). 'Art' is "subsumed under the question of images" and these images can only be tolerated in terms of their truthfulness of the depiction of a perceivable reality and their usefulness for the functioning of society (Rancière, 2004, p. 20). The "precise ends" of the true arts are, then, "didactic" in nature (idem); they educate the audience in matters that are crucial for the reproduction of the status quo. In the ethical regime of the arts, in other words, paintings, poems or plays can only form a semblance of the distribution of the sensible, and "artists" cannot intervene in the aesthetics of politics (Rancière, 2009, p. 28). This is reflected in the social position of the artist-craftworker, as he is relegated to "the private space-time of his occupation" and, hence, excluded from that which is common to the community (Rancière, 2009, p. 21).

Second, Rancière distinguishes the representational regime of the arts. In this regime, associated with the writings of Aristotle, art becomes something other than ordinary craftwork and can now be recognised as art. It becomes an autonomous way of doing and making, worthy of the name of art, which can be assessed on the basis of its own criteria. These criteria, however, become "a way of stabilizing the artistic exception" (Rancière, 2004, p. 43). Art ceases to be so many imitations that faithfully copy reality in the form of an image ('simulacrum'), yet it becomes a series of imitations of reality that represent the appropriate actions for class-related genres and plots, subjects and situations. For Rancière (2004), the representational logic,

> On the one hand, separated the world of artistic imitations from the world of vital concerns and politico-social grandeur. On the other hand, its hierarchical organization […] formed an analogy with the social political order (p. 17).

In the representative regime, then, the criteria for art – i.e. what can or should be perceived by the audience – are determined by a very strict and "fully hierarchical vision of the community" (Rancière, 2004, p. 22). Art may be included in that which is common to the

community but it still needs to represent its aesthetics. Artists, then, can only be recognised as artists as long as they represent the hierarchical distribution of the sensible, and the assigned roles and functions of social actors.

This all changes in the aesthetic regime of the arts. This regime, which finds its clearest expression in the writings of Schiller, Rancière (2004) explains,

> was initially the breakdown of the system of representation, that is to say of a system where the dignity of the subject matter dictated the dignity of genres of representation (tragedy for the nobles, comedy for the people of meagre means; historical painting versus genre painting; etc.). Along with genres, the system of representation defined the situations and forms of expression that were appropriate for the lowliness or loftiness of the subject matter. The aesthetic regime of the arts dismantled this correlation between subject matter and mode of representation (p. 32).

This aesthetic revolution takes place somewhere in the 18th century, at the cusp of modernity. Indeed, Rancière argues, the aesthetic revolution, and its associated forms of art and politics, forms the very heart of a regime of identification that can be equated to artistic and political modernity. Artists, here, have a share in the distribution of the sensible (unlike in the ethical regime) and art is not contained in a neutralised or stabilised sphere (as in the representational regime). So if we needed to summarise in one sentence the aesthetics of this regime, understood as a distribution of the sensible, we could say that the logic of the aesthetic revolution implies that, in principle, "nothing is unrepresentable" and everything can be art (and, hence, politics) (Rancière, 2002). The aesthetic revolution entails, in other words, that – in principle – anything or anyone can have a stake in, and a bearing on, that which is common to the community. Rancière finds an analogy in what Schiller called the "aesthetic education of men" (2004, p. 43). "Art", Rancière (2010) proffers,

> is taken not only as an expression of life, but as a form of its self-education. What this means is that, beyond its destruction of the representational regime, the aesthetic regime of art comes to terms with the ethical regime of images in a two-pronged relationship. It rejects its partitioning of times and spaces, sites and functions. But it ratifies its basic principle: art is a matter of education. As self-education art is the formation of a new sensorium – one which signifies, in actuality, a new ethos (p. 127).

Ultimately, then, the aesthetic regime of art indicates that the aesthetics of a community does not form a more or less static sensorium, but that the distribution of the sensible can be constantly *re*distributed. In the aesthetic regime, in fact, art, as the politics of aesthetics, signals that the common constitutes a sensorium that can now, in principle, be constituted and reconstituted by each and everyone in the community.

3.4.3 Revisiting the Original Scene

As stated, the main conceit of Rancière's work is that the arts and politics that are specific to these regimes share a series of family resemblances, which entails that the politics of aesthetics are able to express the aesthetics of politics, and vice versa. Forms of art, he (2004) therefore writes, "appear to bring forth, in very different contexts, figures of community equal to themselves" (p. 17). The politics of art is not to be found in this or that critical intervention or such and such a utopian project; it is to be found in its aesthetic form. "The arts", in other words (Rancière, 2004),

> only ever lend to projects of domination or emancipation what they are able to lend to them, that is to say, quite simply, what they have in common with them: bodily positions and movements, functions of speech, the parceling out of the visible and invisible (p. 19).

What makes the emergence of the locative media art scene around the turn of the millennium so interesting, then, is not that it has been framing itself, in nostalgic fashion, as a political avant-garde that criticises the social space of contemporary society and leads the way to a utopian situationist city. Rather, its emergence is interesting, and can only be interesting, when locative artists are seen as an 'aesthetic avant-garde', an avant-garde that reflects and anticipates a change in the distribution of the sensible of and within the city and its public spaces. The idea of the aesthetic avant-garde, Rancière (2004) explains,

> is [rooted], in accordance with Schiller's model, in the aesthetic anticipation of the future. If the concept of the avant-garde has any meaning in the aesthetic regime of the arts, it is […] on the side of the invention of sensible forms and material structures for a life to come (p. 29).

The locative media art scene, seen as an aesthetic avant-garde, reflects and anticipates, in other words, the emergence of another aesthetic logic in and of public space. This is not to say, as Bratton and Tuters argued, that locative or post-locative media art projects constitute – or, in a replay of the pseudo- and neo-situationist nostalgia for political art, *themselves* lead to – so many *re*distributions of the sensible. This is too narrow an interpretation. I contend, rather, that the mere possibility of such a sensible *re*distribution follows from a more profound change in the very nature of public space (that is broader than a momentary *re*distribution of the sensible *in* the city). The first and second wave of locative media art projects point, rather, to a structural transformation of public space and a whole new aesthetic regime of urban space.

3.5 The Aesthetic Regime of Hybrid Space

The very moment artists began to experiment with Global Positioning Systems and digital maps, wireless devices and mobile interfaces, they began to explore the new conditions for, and the new possibilities of, our sense experience of hybrid space. When they created interfaces displaying the whereabouts of fellow travellers, they anticipated a changing crowd psychology. When they facilitated ordinary citizens overwriting the semiotic layers of public space, they redefined what could and could not be read in a "common space, endowed with a common language" (Rancière, 2004, p. 13). When they created idiosyncratic cartographies, they reflected an already changing sensorium. They did not, however, criticise a degraded here and now in the name of a utopian nowhere, albeit despite themselves. "There is no straight way", Rancière (2008) once wrote,

> from looking at a spectacle to understanding the state of the world, no straight way from intellectual awareness to political action. What occurs is much more the shift from a given sensory world to another sensory world which defines other capacities and incapacities, other forms of tolerance and intolerance. What works out are processes of dissociation: the break in a relation between sense and sense – between what is seen and what is thought, what is thought and what is felt (p. 12).

The series of locative art projects should, in other words, not be seen as so many temporary displacements of the parameters of public space, so many fleeting situations, but as so many moments of dissociation from an older aesthetic logic of urban space and the anticipation of the aesthetic logic of hybrid space. The aesthetic avant-garde of the locative media art scene

reflects, then, what I would like to describe as the aestheticisation of hybrid space (understood, following Lefebvre, as a social space that indeed is seen, thought, and felt).

I do realise that this may sound counter-intuitive. Seen from the perspective of the history of the arts, the locative media art scene cannot possibly stand for a shift from one aesthetic regime to another because they have always already been working within the aesthetic regime of the arts. This is correct – and, in a sense, given its roots, locative media art may even be argued to incorporate two artistic strands that embody the defining characteristics of the aesthetic regime of aesthetics.

Figure 3.12 : Rirkrit Tiravanija, *Pad Thai*, 1990.

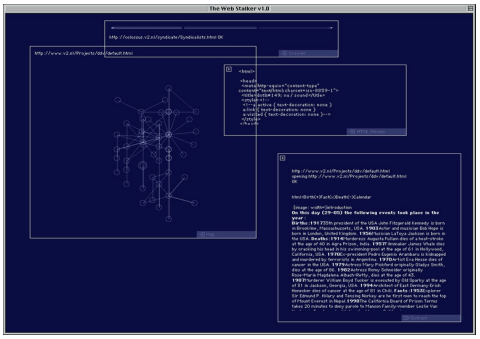

Figure 3.13: I/O/D, *Webstalker*, 1997-1998.

Rancière argues that the "plot" of the aesthetic regime unwinds along two contradictory yet related "emplotments" that constitute two "vanishing points" of the arts (2002; 2009, p. 34). The first emplotment goes by the name of "autonomy" and dissolves life into art (and is, according to Rancière, often wrongfully equated to a modernist *art for art's sake*); the second emplotment is known as 'heteronomy' and dissolves art into life (and is, according to Rancière, often wrongfully equated to postmodernist *non-art*) (2002). Retracing this plot up until its most recent manifestation, he (2009) argues that

> the logic of an entire regime of identifying art and its politics […] is conveyed today by the contrast between a sublime art of forms and a modest art of behaviours and of relations (p. 34).

If we need to define locative media art in terms of the plot of the aesthetic regime of the arts, we could say, interestingly, that the locative media art scene descends from both of

these emplotments.

3.5.1 The Plot of NetArt

On the one hand, it has its roots in a sublime art of forms, which seek to maintain its autonomy by insisting, paradoxically, on being radically Other ('heterogeneous') than everyday life; something that can barely – or not at all – be apprehended. By seeking to create dis-sensual forms that cannot directly be reconciled with ordinary experience, autonomous art attempts to sensitise its audience to that which is not included in any given distribution of the sensible (Rancière, 2009, pp. 41–44). This 'autonomy' also is at the core of the *NetArt* of the 1990s and, especially, the net-specific sub-genre of *browser art*. Browser art emerged as a reaction to the introduction, and war between, the graphical browsers *Internet Explorer* and *Netscape Navigator*. Its main criticism was directed at the commercialisation and conventionalisation of the internet and the world wide web as well as the orderly ways in which graphical browsers framed the ordinary experience of what per definition is a wild, rhizomatic and complex network of networks. The British group I/O/D, for instance, created alternative browsers to present to the senses the very sublime nature of the internet; its awe-inducing abundance and terror-provoking infiniteness (Paul, 2008, p. 118). Matthew Fuller (1998), one of the group's members, describes their project *WebStalker* (see figure 3.13) thus:

> The Map makes the links between HTML documents. Each URL is a circle, every link is a line. Sites with more lines feeding into them have brighter circles. Filched data coruscating with the simple fact of how many and which sites connect to boredom.com, extreme.net or wherever […]. The map spreads out flat in every direction, forging connections rather than faking locations. It is a figuration that is immutably live. A processual opening up of the web that whilst it deals at every link with a determinate arrangement has no cut-off point other than infinity. Whilst the Browser just gives you history under the Go menu, the Map swerves past whichever bit of paper is being pressed up to the inside of the screen to govern the next hours of click-through time […].
>
> From there […] a predatory approach to data is developed. Sites are dismantled, stored, scanned to build up other cultures of use of the nets […]. All the while, synthesis keeps running, keeps mixing. Producing sensoriums, modes of operation, worldviews that are downloadable (that is both traceable and open), mixable,

> measurable, assimilable (but not without risk of contamination), discardable, perhaps even immersive […]. Aggregates are formed from the realm induced by the coherence of every possibility. Syntactics tweaks, examines and customs them according to context. This context is not pre-formatted. It is up for grabs, for remaking. […] It is the production of sensoria that are productive not just of 'worlds' but of the world.

The techniques used by I/O/D and the forms created by means of *WebStalker* are presciently close to what Rancière hints at when he speaks of the aesthetic potential of autonomous art to open up a gap between ordinary experience and the dis-sensual sublime form.

3.5.2 The Plot of Relational Art

On the other hand, locative media art is rooted in 'the modest art' of behaviour and relations, which seeks to dissolve into everyday life by becoming something completely other than art. Its heteronomy, as Rancière (2009) put it, identifies "the forms of aesthetic experience with the forms of another life. The finality it ascribes to art is to construct new forms of life in common, and hence to eliminate itself as a separate reality" (p. 44). This heteronymous emplotment is today exemplified – and his example is, quite conveniently, the other important precursor to the locative media art scene – by the so-called relational artists of the 1990s. These relational art works, as the critic Nicolas Bourriaud (2002b) has argued, share a sensibility and a form that "take as their point of departure […] the changing mental space that has been opened for thought by the internet" (p.8; see also 2002a). Put simply, relational artists use the white cube of the museum or the gallery to create environments that facilitate participation and social interaction among artists, audiences and installations. Rirkrit Tiravanija, for instance, one of the most prominent of the relational artists, turned to cooking food with (*Pad Thai*, 1990 – see figure 3.12) or serving meals to (untitled, 1995) exhibition visitors, rather than presenting personally created artworks. The exhibition, then, becomes, as Bourriaud (2002a) explained,

> the special place where such momentary groupings may occur […] and depending on the degree of participation required of the onlooker by the artist, along with […] the models of sociability proposed […], an exhibition will give rise to an 'arena of exchange' (pp. 17–18).
>
> .

It could be argued, and at times Bourriaud hints at this, that the body of relational art constitutes a critique of the 1990s idea of cyberspace as a space of flows above and beyond the urban communities in the space of places; and that facilitating a participatory culture in the physical space of the museum or the gallery served as a counterweight to the proliferation of chat sessions and other tele-activities in cyberspace that were thought to substitute so many forms of urban sociability. However, the relational sensibility can also be viewed, and this seems to be Bourriaud's dominant argument, as a reflection of the very first attempts to 'explore the internet' or 'navigate the netscape', to allude to the above described browser wars, and to chart and bring into culture the vast *terra incognita* of cyberspace (see also Van den Akker, 2009).

3.5.3 The Plot Thickens: The *Mise-en-Scène* of Locative Media Art

The politics of aesthetics of the locative media artists moves, then, between the autonomous and heteronomous poles of the aesthetic regime. They work within a register that can be both completely other to everyday life and completely similar to it. By embodying the two strands of the internet-related art of the 1990s that can be associated with the emplotments of the aesthetic regime, the locative media art scene points towards another *mise-en-scène* of public space. As Drew Hemment (2004) put it,

> locative art's focus on digital authoring within the environment, on a dynamic relationship between database and the world, offers the chance to take art out of the galleries and off the screen.

The *mise-en-scène* of locative media art – i.e. the fact that its assemblages have both entered the scene and altered the scene of public space – foreboded another aesthetics of social space – especially, given the very ordinariness of the tools, techniques and technologies used by locative media artists. One of the most interesting aspects of the above-described locative media projects is the fact that they are structured around ways of doing and making, thinking and feeling that since have rapidly become ordinary, if not to say banal, presences in our everyday lives. The men and women and things and animals equipped with locative media reveal, "based on what they do and the time and space in which this activity is performed" (Rancière, 2004, p. 12), a whole new body of shareholders in that which is common to the community. This is to say that their aesthetic forms anticipated the social sensorium that slowly but surely emerged around the turn of the millennium, as smartphones-user

assemblages became the pre-eminent machines of the urban mode of production (see chapters 1 and 2). Locative media's aesthetic forms – i.e. 'figures of community equal to themselves' – anticipated, then, a structural transformation of public space corresponding to a new aesthetic logic in, and of, the hybrid spaces of the city.

The structural transformation of public space and the new aesthetic logic of hybrid space can be likened, I contend, to a transition from the logic of the representational regime to the logic of the aesthetic regime. The logic of the representational regime organised public space and the city according to a vertical logic that hierarchically determined who could, and who could not, "*take charge*" of the shared sensorium of social space (Rancière, 2004, p. 12), that is: the protagonists of 'official culture' (i.e. self-interested corporate hacks or well-intended public servants). Advertisements and traffic signs as much as 'obscene' images and undesired behaviour – such forms of visibility were all regulated top down (and ultimately by the public institutions responsible for public space) and then negotiated from the bottom up. We are reminded, here, of Michel de Certeau's (2002) famous distinction between the top-down view of city planners, conjured up by the metaphorical view from the top of the World Trade Centre over the city of New York, and the bottom-up micro-appropriations taking place in the streets below by ordinary users and their everyday practices (pp. 91–95). Today, I would argue, the hierarchical logic of representation is inverted or – at the very least – has been overdetermined by a horizontal logic that has at its core an inversion of the roles concerning who can, and who cannot, 'take charge' of the social sensorium of public space and the hybrid city. In the social situation anticipated by locative media art, any user can – in principle – have a stake in, and contribute to, the shared sensorium of social space. The distribution of the sensible – i.e. that which is visible and sayable – in, and of, public space and the city can, in other words, be constantly re-distributed by ordinary users – bottom-up, as it were – and therefore now corresponds to the aesthetic regime of identification (rather than the representational regime).

3.6 Openings and Conclusions

There is the often-cited Lefebvrean slogan on the relation between space and politics – "there is a politics of space because space is political" (2009 [1970], p. 167) – that we now may very well change into a somewhat more 'aesthetic' statement. In fact, one could argue, there is a politics of space, because space is aesthetic.

In this chapter I analysed the first and second wave of locative media artists in order to apprehend the aesthetic logic of hybrid space. For me, the first wave has been of special

interest because its digital situationism provided the predominant technological frame for the moment of proliferated mobile interfaces and unscrambled GPS signals and, hence, can be said to have influenced the social imagination (of 'app' developers) around the affordances of smartphones. In a narrow sense, the aesthetic logic of hybrid space can therefore be said to be situationist in the sense that it aims at playful and aleatory encounters, enables the annotation of the 'official' urban environment with layers of folk knowledge, and draws on alternative psychogeographic cartographic practices. I argued, however, that locative media art projects should not be mistaken for an avant-gardist critique of urban space and city life. It is, after all, precisely the set of values the situationists promoted – autonomy, flexibility and creativity in and through a networked, "mobile civilization" (see Chtcheglov, 2006 [1953], p. 4) – that have become the dominant operating system of the urban mode of production (see chapter 2). Rather they are wholly in and of our time.

In a broad sense, therefore, locative media art projects pinpoint what can be called a structural transformation of public space and urban life. Locative media art is good art, and has a politics, not because it experiments with alternative forms of life but because it created so many figures of community equal to itself. It, in other words, anticipated the becoming dominant of an aesthetic logic of hybrid space that reminds us of the aesthetic regime of identification (as much as the waning of the representational logic of public space and urban life). This aesthetic logic entails a more horizontal mode of producing the social sensorium of perceived space, yet one that is mostly structured around the horizontal associations of the 'for benefit' logic of the common and the 'for profit' logic of control (and that appoints, and hierarchises, semiotic winners and losers *after the fact*, as it were).

It is important to note that *that which is common to the community* – the distribution of the sensible: the visible and the sayable – are related to the features of everydayness we discussed (in chapter 2): curiosity (the 'fallen' mode of perceiving that which is *visible*) and chatter (the 'fallen' mode of discourse or that which is *sayable*). The notions of the visible and the sayable re-emphasise the critical importance of curiosity and chatter to the urban mode of production and rephrase these everyday modes of being in more neutral terms that are more appropriate to their central role – as catalysts – of the production of common forms of immaterial wealth. It also highlights that, in the aesthetic regime of hybrid space, it is precisely curiosity and chatter that form the degree zero of the aesthetic self-education of the multitude.

Yet the aesthetic regime of hybrid space cannot be likened to some kind of one-sided form of semiotic democratisation by networked bodies. Each aesthetic regime of

identification, including the aesthetic regime of aesthetics, always already implies specific ways in which the shared sensorium of perceived space is regulated or "policed" (Rancière, 2010, pp. 36–37). Please recall that Rancière (2004) wrote that a

> distribution of the sensible establishes at one and the same time something common that is shared and exclusive parts. This apportionment of parts and positions is based on a distribution of spaces, times and forms of activity that determines the very manner in which something in common lends itself to participation and in what way various individuals have a part in this distribution (p. 12).

As we've seen in the previous chapters, this apportioning of parts and positions in that which is common increasingly happens by means of interfaces and algorithms created by globally operating software companies (rather than simply artists or users). As a consequence of the becoming dominant of the aesthetic regime of hybrid space, then, the government institutions that once held sway – in the first and last instance, as it were – over the distribution of the sensible in the public spaces of the city increasingly lose control over that which is common to the community (while ordinary users and global enterprises increasingly determine its look and feel).

In the next chapter, 'Dividuals: The Orchestration of Chance', I analyse the business models, interfaces and algorithms of Foursquare, an application that could be seen as a preeminent example of the ways in which software companies use interfaces and algorithms to apportion parts and positions in hybrid space and 'police' the visible and the sayable and that which is common to the community. Foursquare is a smartphone application that aims at generating serendipitous social and spatial encounters by means of gamification, spatial annotation and psychogeographic metrics. The next chapter therefore also revisits the situationist emphasis on playful and aleatory encounters, spatial annotation and psychogeographic mapping from the perspective of Foursquare's interfaces and algorithms. If there ever was a 'situationist' app, it must surely be Foursquare.

Chapter 4
DIVIDUALS
The Orchestration of Chance

> The moment is born of the everyday and within the everyday.
>
> – H. Lefebvre, 2008 [1961], p. 351

> This […] gives a tactical mobility, to be sure, but a mobility that must accept the chance offerings of the moment, and seize on the wing the possibilities that offer themselves at any given moment.
>
> – M. de Certeau, 2002, p. 37

4.0 Introduction

One night in the summer of 2011, I received through an application called Foursquare a friend request and then, upon accepting it, a message. "Stijn V. just commented on your check-in", it read. "He was all like: Is there something going on over there?" The message surprised me. It was just a few weeks since I had started to use Foursquare and, until that moment, nobody had ever reacted to any of my check-ins. "No… nothing special!", I reported. "Why would you like to know?" In fact, he explained, he was just a few blocks away, saw that I had checked-in and wondered why I was at the Meir (Antwerp's main shopping area) at an hour when all shops are closed. "I thought, maybe there is something interesting going on…" This might seem odd. Why would you want to look up who has checked in at a certain location? And why would you want to find out what's happening over there with the help of a stranger? Yet on Foursquare it isn't odd – not necessarily.

Foursquare has seen many different guises. At the time of the request, so-called classic Foursquare (2009–2014) was a geosocial network, a location-based game and, from 2011 onwards, a local search and recommendation engine, all at once. Its basic functionalities were that it enabled users to check in at the locations they were visiting (or passing by), share these check-ins with their social peers, and create or browse site-specific layers with user-generated content (folk knowledge). Users, in other words, were able to notify their friends where they

were and what they were doing, and to find out where their friends were and what was happening elsewhere, as much as they were notified by Foursquare of relevant people, places and practices. Meanwhile, they competed for points and badges.

Later versions of Foursquare split up these different functionalities into several different applications. The most prominent of these applications are (Foursquare) Swarm (2014–present), which retained the location sharing and the gaming functionalities, and Foursquare 8.0 (2014–2016) and Foursquare (City Guide) (2016–present), which is all about local search and recommendation functionalities. There are, however, more – and we come to these below.

From its 2009 launch to approximately 2012, Foursquare's user base grew spectacularly, until it levelled off at around 50 million users. This is, by Web 2.0 standards, relatively modest. Yet it is the most successful among a group of stand-alone location-based social network applications that launched from the mid- to late 2000s (and mostly foundered around 2012), including Loopt (2005–2012), Gowalla (2007–2012), Brightkite (2007–2012), and Google Latitude (2009–2013). Stand-alone location-based social networks (LBSNs), in other words, never matured. "[I]n the mid- to late 2000s", Frith (2015) argues,

> it seemed like Foursquare, Loopt, and other LBSNs would achieve mainstream status. That never happened. Most LBSNs failed, Foursquare split into two applications as a way to de-emphasize location sharing, and what happened instead was that large sites like Facebook and Instagram incorporated location as one of many ways people can share information with their social network (p. 76).

This indeed is what has been happening to location sharing – with the exception of location-based dating applications, such as Tinder and Grindr. In subsequent chapters I therefore turn to an analysis of these mainstream forms of location sharing. In chapter 5, I analyse the use of Grindr by gay men. And in chapter 6, I analyse the use of smartphones by young girls by focusing on their ways of sharing their location through major applications such Twitter, WhatsApp, Facebook, Instagram and Snapchat.

Still, though, there are at least two reasons why the case of Foursquare remains relevant for our inquiry into the social production of hybrid space. First, Foursquare's consumer applications are still in use (unlike many, if not most, other LBSNs). It has been, and still is, the most successful of the many stand-alone location-based social networks that emerged around the coming of the age of mobile and locative (GPS-enabled) mobile

interfaces. An analysis of its interfaces – i.e. the many ways in which these interfaces interpellate their users – can therefore provide us with key insights into the dominant representation of hybrid space, as well as the preferred ways of acting in, perceiving, and conceiving the city. In section 4.1, 'Interfaces: Playful, Heterogeneous and Aleatory Encounters', I argue that Foursquare's interfaces (Swarm, City Guide), when taken together, interpellate users by seducing them to constantly explore and encounter new people, practices and places in a competitive environment (and therefore represent the preferred way of life in the urban mode of production).

Second, an analysis of Foursquare's algorithms – i.e. the ways in which these algorithms modulate hybrid space – provides us with valuable lessons concerning the dominant experience of hybrid space. If anything, Foursquare points to what it would be like to walk in a truly hybrid city (today, as well as in a possible near-future). In section 4.2, 'Algorithmic Modulation: The Orchestration of Chance', I argue that the algorithms of Foursquare's applications (Swarm, City Guide), when taken together, attempt to orchestrate chance in hybrid space by means of software orchestration and network orchestration. To theorise this notion, I build on Lefebvre's "theory of moments" (2002 [1961, pp. 340–358]) that he developed in conjunction with, yet ultimately as a counterweight to, Debord's constructed situation that we discussed in the previous chapter. Both situations and moments pertain to playful, heterogeneous and aleatory encounters in everyday city life. Yet the situation – like a locative art project - is pre-conceived and actively constructed and the moment must be grasped on the fly, as it presents itself - pops up, as it were - in and through our everdayness. So whereas networked bodies actively construct the former; algorithms present the latter as a dividualising choice.

4.1 Interfaces: Playful, Heterogeneous and Aleatory Encounters

I argued in the section 0.1 that the smartphone – and the many applications running on its functionalities – should be seen, in part, as an ideological apparatus. This entails that they should be seen as so many relays of the dominant representation of the social relations, and, by extension, the social spaces of, and in, the urban mode of production. Foursquare, as the most successful of all of the stand-alone mobile *and* locative social networks, provides, then, a privileged entry point for any analysis of the preferred way of life in hybrid space. Below I dissect Foursquare's interfaces – and its many variations over time – in order to analyse the ways in which these interfaces (attempt to) interpellate users by recruiting and transforming

them into a very specific subject position. Since there have been many iterations over the years, I focus on the dominant features of Foursquare's interface in two separate periods: Classic Foursquare (2009–2014) and the split into Foursquare Swarm and Foursquare City Guide (2014–present).

4.1.1 Classic Foursquare (2009–2014)

The interface of classic Foursquare (2009–2014) predominantly had the look and feel of a game in which users compete for points, badges and awards with other users. "Dennis Crowley", Gell (2017) wrote,

> who co-founded Foursquare after his earlier location app, Dodgeball, was purchased by Google and quickly foundered, had a hunch that transplanting the reward system of videogames into the real world would give his new venture more stickiness. He was right.

The company's initial strategy was, in other words, to seduce as many users as possible – ahead of the competition – by turning hybrid space into an urban game. The interface contained several competition and gaming elements – and they all interpellated users in their own way.

The *leaderboard*, a ranking of one's befriended users, seduced users to check in as many times as possible at as many locations as possible by rewarding all those check-ins with points that were displayed on a ranking list. Users played, as it were, a competition with the people they had befriended on Foursquare. By sending notifications concerning one's ranking ("You're tied with Julie. One more to pull ahead!"), the application seduced users to keep checking in. And by rewarding with fewer and fewer points when one checked in at locations that had already been visited, the application encouraged players to regularly check in at as-yet undiscovered venues.

Badges (see figure 4.1), similarly, could be earned by successfully fulfilling a single task or a quest-like series of tasks. Users could be rewarded, for instance, with a badge for the first, tenth or fiftieth check-in; a series of visits to museums and fitness centres, bars and restaurants, or train stations and airports; simultaneous check-ins with a group of friends or a check-in under the influence (presumably) in the middle of the night and so on and so forth. These badges can be likened to insignias, suitcase stickers or customs stamps – whether they must be seen as *badges of honour* or *badges of dishonour* is another matter entirely.

Mayorships, the last and arguably most prestigious award, would be 'bestowed' on users who had been able to check-in at certain locations the most within a specific period of time. Apart from the 'prestige' that came with holding mayorships, they sometimes even resulted in small benefits such as free goods, product discounts or better services (yet this was not institutionalised and depended very much on the goodwill of the venue's owners).

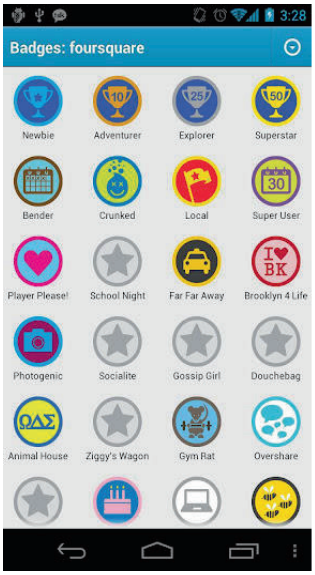

Figure 4.1: Foursquare Badges

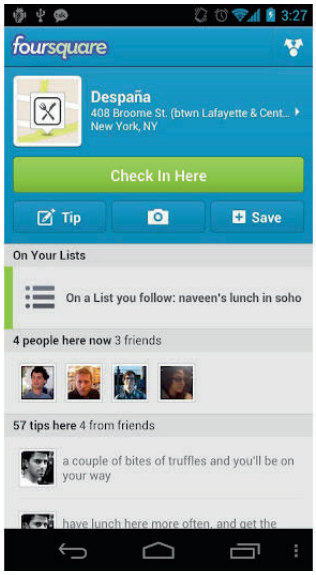

Figure 4.2: Check-in button, present peers and friends, and tips of peers and friends

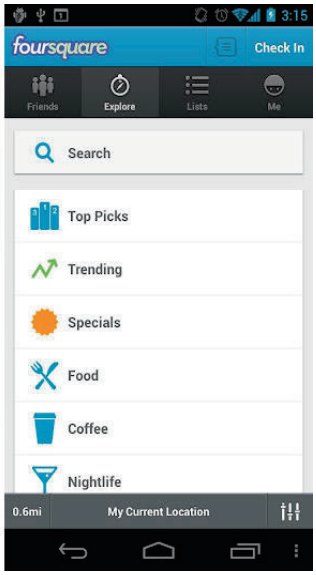

Figure 4.3 : Explore Tab

These competition and gaming aspects of Foursquare are part of a broader socio-technological development towards the gamification of everyday life. This development gained momentum following the widespread diffusion of portable ICTs, as these kinds of devices nest themselves in many, if not most, of the social situations that make up our everyday lives (Zichermann and Cunningham, 2011). Since the turn of the millennium, as Frissen et al. (2015) argued, we have witnessed a "ludification of culture" (p. 9) (see also Raessens, 2006 and 2014). This is to say that a wide variety and an increasing number of services attempt to shape our daily practices by means of ludic technologies (see also Frissen et al., 2015). Classic Foursquare attempted, in other words, to seduce its users by appealing to the innate lust for 'play' of what Huizinga called the *Homo Ludens*, and did so by means of ludic technologies, i.e. playful features centred around what Caillois described as *alea* ('chance') and *agôn* ('competition') (see Frissen et al., 2015, pp. 12–15). In a *New York Times* interview

Dennis Crowley once stated: "The whole point is to encourage people, and reward them for trying new things" (see Wortham, 2009).

The second dominant feature of classic Foursquare's interface were the check-ins that enabled users to share their location with their Foursquare friends and notify other visitors at that location of their presence. The *'check-in' tab* (figure 4.2) showed which users had also recently checked in at that particular location and whether these users were friends or peers (who happened to be at the same venue at the same time) ('4 people here now; 3 friends'). The *'friends' tab* enabled users to look up the last known location of friends, while push-notifications alerted users when a friend checked in at a certain location ('Julie just checked in at...'), which potentially enabled users to meet up when they accidently happened to be nearby. Foursquare's check-in feature enabled users, in other words, to share, and become aware of, the locations (past and present) of a more or less well-defined group of friends and a more or less random group of peers. In this way, Foursquare facilitated the creation of an archive that provided an insight into the history of one's spatial practices, as well as the practices of one's friends and one's peers *and* a map that provided an oversight of one's friends' practices and one's peers' current practices (see figure 4.2).

The *'explore' button* (figure 4.3), meanwhile, has been the third dominant feature of the interface of classic Foursquare. The *'explore*' tab (see figure 4.3) enabled users to browse the environment based on categories with personalised recommendations. *Top Picks*, the most prominent category, displayed a broad set of personalised recommendations ("our best suggestions for right now"). These recommendations were based on the following "recommendation flow", as Foursquare's engineers described (Foursquare, 2015a) it:

- 0(100's) of candidate venues are retrieved from a non-personalized store such as our venues ElasticSearch index
- Personalized data such as prior visit history, similar venue visits, friend/follower prior history is retrieved and used to rank within these candidate venues.
- For the top ranked venues we choose to show the user, short justification snippets are then generated to demonstrate why this venue matches the user's search.

So Foursquare's interface in this case showed, and hence interpellated, users by providing personalised suggestions, as well as adding 'justification snippets' (such as 'x friends have been here'). This is "a personalized map made just for you", as it was described in the corporate communication strategy. Other key features of the explore-interface include

trending ("most visited nearby places at the time"), *saved* ("items saved to a personal to-do list"), as well as *haven't been*, *been before*, and *friends have been* (all of which recommended precisely what they were promising, but personalised).

With the introduction of the '*explore*' feature, interestingly, classic Foursquare's system of push notifications also took a more central role. Classic Foursquare increasingly alerted users to people, places and practices in their vicinity by means of automated notifications. It would interpellate users, for instance, when they would coincidentally pass by a place or spatial practice that had been (previously tagged and) recommended by one of the users they have befriended or whose lists with tips they followed ("since you're so close, why don't you try Julie's tip") or that was on their own '*to do*' list.

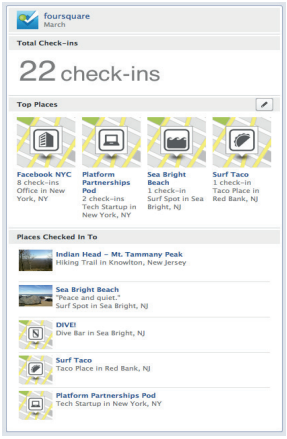

Figure 4.4: Overview of all check ins.

Figure 4.5: Time machine

History (Figure 4.4) and *time machine* (Figure 4.5) could be considered to be the fourth, and last, main feature of classic Foursquare. The former (introduced in 2012) mirrored Facebook's switch to *timeline* (introduced in 2011) and enabled users to scroll back through their check-in history and their interactions with the interface (added tips, for instance) and other users (say, likes and messages). The latter (introduced – desktop-bound – in 2013 in cooperation with Samsung) was a visualisation of the history of a user's check-ins and reminds, instantly, of the psychogeographic maps of the locative media artists that we discussed in the previous chapter. Both enabled users to search the history of their mobility patterns, spatial practices and social interactions. This became a prominent feature in subsequent iterations of Foursquare (see 4.1.2) and a standard practice on social media platforms such as Facebook and Instagram (see chapter 6).

It can be argued that, taken together, these features of classic Foursquare's interface – i.e. location-based gaming, geosocial networking, environment browsing and location recommending, as well as memory archiving – interpellate users into a rather precise subject position. The ultimate goal, the set of practices that reflects Foursquare's desired standard of behaviour, would be that its users continuously check in at the locations they are passing by, regularly attempt to check in at locations they have not yet visited, share these check-ins with as many friends as possible, and befriend people who frequent the same venues – and all of this in a highly competitive environment. Seen as an ideological apparatus, then, the application interpellates users to lead highly mobile lives geared towards new and aleatory encounters (socially and spatially) while competing for awards and honours. It is, in sum, a near-perfect representation of the preferred way of life in the urban mode of production (and perhaps it therefore is not a coincidence that O'Reilly AlphaTech Ventures, an investment firm related to Tim O'Reilly, the populariser of the term Web 2.0 (see chapter 1), is an investor).[6]

Meanwhile, the check-in-functionality helped Foursquare in their aim to map, as Google would do, the traces that we leave behind while we 'surf' through public space (e.g. 'who and what, where and when'), and attempted to chart like Facebook the social patterns that we create when sharing data with our peers (e.g. 'who and what with whom'), so as to get a clearer overview of, and a better insight into, our behaviour in public space (and help them cater to the consumer-of-the self). Foursquare, in other words, accumulated users in order to amass data, to be able to profile these users based on their spatiotemporal data. At the time, the company hoped to be able, in the near future, to charge local merchants and international chains a fee to assist them with their location-based marketing. "We have a really advanced way of targeting people", Dennis Crowley (2011), Foursquare's founder, once said.

> Say, you are the kind of person who goes to lots of different pizza places or a lot of different coffee shops. We know about the types of habits that you have. Are you a person that checks-in in the morning? Are you a person that checks-in in the evening? We can start targeting the deals based on your different habits.

Taken together, these interactions with Foursquare's interface – and especially the check-ins – provided Foursquare with a plethora of context-rich user-generated data and plenty of possibilities for future monetisation (see section 4.1.3).

[6] See http://oatv.com/portfolio.html, retrieved 30/11/2017.

For users, however, as Frith (2014) has shown in an empirical study of the usage of classic Foursquare, the "understood meaning" of the Foursquare check-in was rather confused and confusing. "The research presented here", he (2014) writes, "shows that people use Foursquare to accomplish different goals, goals that include finding friends, engaging with gaming elements, and logging past mobility as a memory tool" (p. 90). This, it seems, has led to a decision to "de-emphasise" check-ins in the main Foursquare application by migrating this feature and these functionalities to a separate application: Swarm, which was launched in 2014. The environment-browsing and location-recommendation functionalities were retained in the Foursquare 8.0 (2014–2016) and the Foursquare City Guide (2016–present) iterations.

4.1.2 (Foursquare) Swarm and Foursquare (City Guide)

As stated, Swarm kept many of the functionalities of classic Foursquare, yet tweaked them slightly. Although it initially focused only on geosocial networking (see figure 4.6), it soon re-introduced the gaming features (Garun, 2015). As a press release (Foursquare Blog, 2015b) stated:

> When we first launched Swarm, we focused on helping you quickly find your friends. We wanted to make it easy to see who was nearby and introduced messages so you could effortlessly coordinate meeting up. But we heard time and time again that while Swarm made those serendipitous hangouts possible, it could be more fun.

The badges, collected in classic Foursquare, were relegated to a functionality called *memory lane* located in the *stickers tab* (see figure 4.7). The stickers under this tab resemble emoticons and can be collected (like the badges previously) and attached to check-ins and photos (see figure 4.4). *Mayorships* were now not rewarded while competing with all other users but simply while competing with one's own friends (probably to make it less difficult to hold one's crown amidst overwhelming competition). The *leaderboards* now revolved not around points but around *coins* – and, since the 2016 reiteration, these can be used to buy at a discount, or get any other kind of deals called *swarm perks*, at local merchants. Swarm, in other words, resembled in many ways classic Foursquare *without* the explorer-functionality (introduced a couple of years after its launch) (see, for instance, Bohn, 2016).

Figure 4.6: Foursquare's reiteration as the geosocial network Swarm.

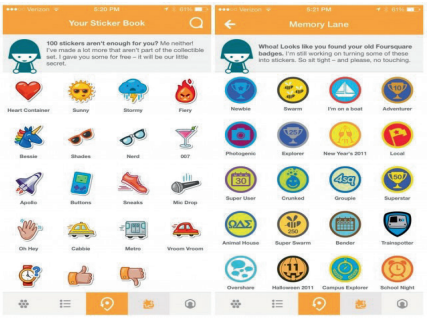

Figure 4.7: Stickerbook and Memory Lane

Foursquare 8.0, meanwhile, fully focused on location recommendation and environment browsing. Its main functionalities were built on Foursquare's Pilgrim technology, which enables the company to detect and collect the location of a user (even when the user is not using the application). With Pilgrim, in other words, Foursquare can add to the billions of active check-ins it already amassed (and still being generated through Swarm), without asking its users to check in. In this way, it is able to generate a massive amount of data concerning the whereabouts and comings and goings of its users. "What if", Crowley (in Popper and Hamburger, 2014) once asked, "we don't need people to check in anymore? What does a version of Foursquare look like that doesn't beg you to check in as soon as you open it up?" Well, it looked like Foursquare 8.0.

For its re-launch, the application was completely redesigned in both look and feel – away from the gimmicky, tongue-in-cheek sensibility of classic Foursquare and Swarm and towards a more serious, matter-of-fact tone (see figure 4.8) – in order to be able to compete with similar, yet more mainstream, applications such as, say, Yelp (for environment browsing) and Google (for personalised recommendations). Its main functionalities consisted of three tabs: *find your place*, *here* and *tips*, as well as a tastes-functionality and a rating-functionality to feed Foursquare your preferences and experiences (see figure 4.8) (Hamburger, 2014).

The *here* tab simply showed users the nearest venue, alongside recommendations. Users could then tap the *pick another* button to see a longer list of categorised recommended venues. The *tips* tab showed users recommendations from newspapers, the people you followed, your personal tastes, and trending places in the vicinity.

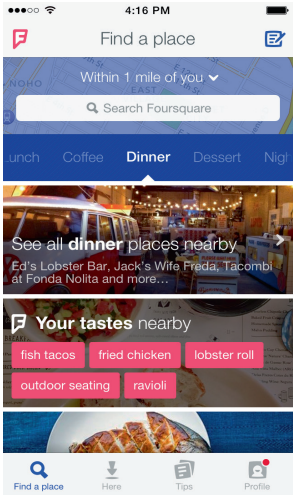

Figure 4.8: Foursquare 8.0 interface.

Figure 4.9: Ad with City Guide interface, emphasising discovery and exploration.

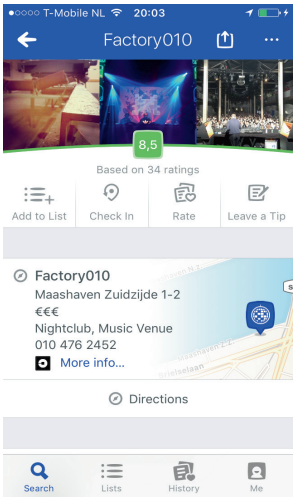

Figure 4.10: Venue interface Foursquare City Guide.

The main tab, *find your place,* enabled users to actively search for places relevant to their previously listed tastes and specific categories and hence functioned mostly like a Google search of the immediate – or rather mediated – environment. These tastes and categories enabled users to filter the already rather detailed recommendations even more. "Unlike most apps (and the Foursquare of old)," Hamburger (2014) explained,

> the new Foursquare doesn't just show a simple list of good places tagged with "brunch." It guesses at what you might be in the mood for, like a brunch place that takes reservations, or a brunch place with bottomless mimosas. These guesses form categories like "boozy brunch," "romantic dinner," and "fancy coffees with Wi-Fi." Foursquare is cleverly taking cues from Netflix, which offers sub-genres like "cerebral thrillers" to help users find content.

Taken together, Foursquare displayed, in other words, highly personalised recommendations by organising the available data by means of one's location, personal preferences, past consumer choices, and behaviour of friends or similar users. In this way it aimed to guess what users wanted and modulated urban space accordingly (see figure 4.8)."For each user", as Foursquare (2015b) explained on their engineering blog,

> we have a pretty detailed understanding of the neighbourhoods and locations they frequent with the technology we call Pilgrim. Given these locations for a user, we generate a ranked personalized list of recommendations.

For these modulations, and I continue to cite the engineering blog, Foursquare combines data about the places someone's friends or people one follows "have been, left tips, liked and saved", the venues that are similar to those a user "liked in the past, both near and far", and places that "match" one's "explicit" tastes. It then mixes these data sources with non-personalised data sources in order to avoid over-personalisation and, hence, "creating a 'personalisation bubble' that misses great places just because the user doesn't have any personal relation to them." These data sets consisted of sources such as "highest rated venues", "venues that are newly opened and trending", "venues that are vetted by expert sources like Eater, the Michelin Guide, etc." Foursquare also aimed to avoid showing the same venues multiple times and, in this way, aimed to encourage users to visit new places (Foursquare, 2015b).

In 2016 Foursquare City Guide was launched (see figure 4.9). The main changes were that Foursquare replaced the *here* tab and the *tips* tab with a *lists* tab and a *history* tab, while changing the name of the tab *find your place* to *search.* The *lists* tab shows two standard lists: *my saved places* (a to-do list) and *my liked places* (a list with favourites). It also enables users to curate custom-made lists and to follow such lists made by other users. The *history* tab shows the history of all the places Foursquare knows you have been (because of a check-in, rating, etc.) or thinks you have been (because of its Pilgrim technology). In doing so, it incorporated the recommendation-functionalities provided by *here*, *tips* and *find your place* within a single *search*-tab, while simultaneously emphasising the possibility of creating lists and the possibility of scrolling through something akin to Facebook's *timeline*.

Foursquare City Guide enables users to interact with the interface of single venues in various ways (see figure 4.10). It shows photos that other users have made and shared through the application; it gives a rating based on the ratings of other users; it provides practical information such as opening hours, address and telephone number; it shows whether any friends (Swarm) or followers (City Guide) have visited the place; it displays tips from people who have been there; and it suggests similar places ("people who go here also like"). Its main buttons (see figure 4.10), which are located at the top of a venue page, enable users to 'save' the place by adding it to a list, check in (via Swarm), and leave a tip. Ratings vary

from positive (a heart) to neutral (an emoticon of a neutral face) to negative (a broken heart); and tips are short-form of up to 200 characters. Interestingly, users are reminded, at various moments and through various means, that tips are supposed to highlight the positive or practical features of a venue. The page where you can leave a tip asks, for instance, "What's good here, Robin?" and suggests topics about which other users have said practical or positive things ("people talk about good for groups, dancing, good for singles"). Similarly, Foursquare enables upvoting and downvoting, yet encourages the former and discourages the latter. The company (Foursquare, 2016) writes that

> Downvoting a tip should be reserved for out-dated or offensive content. Is the WiFi password no longer correct? Does the place you're at no longer serve tempura bacon? Was the tip-leaver really nasty and unconstructive about their experience? Downvote away.

These short-form tips are, in other words, layers of local folk knowledge that are ranked according to what Van Dijck (2014, p. 13) described as the 'popularity' principle. The more upvotes (minus downvotes) a tip receives, the higher its ranking and, hence, visibility. Taken together, then, the overall look and feel of these tips is supposed to be, and in practice turns out to be, practical and positive (Foursquare, 2016).

The last feature of Foursquare's interface that requires our attention is the various push notifications it sends to its users (in order to draw the attention of, and directly interpellate, them). There are, broadly speaking, three types of notifications: recommendations; social notifications; ratings and expertise. Foursquare sends push notifications to recommend specific places or practices. It sends a notification when you are near a venue that, based on your spatiotemporal user profile, should match your interests, tastes and intents; to inform you about interesting events that match your interests, tastes and intents; and to help you plan a trip when you start to check pages of venues that are not in your hometown. Foursquare also sends notifications related to the activities of your social peers. It sends, for instance, notifications when someone starts to follow you, when a friend joins Foursquare, when someone shares a tip with you, or when someone saved a tip you shared with them. And lastly, Foursquare sends notifications that invite you to rate a venue you've recently been to (but did not yet rate) and that alert you when someone liked or saved one of the tips you left behind in public space. Taken together, these notifications 'push' users, so to speak, to visit new places that match your interests and tastes (based on recommendations), meeting new

people with similar interests and tastes (for instance, by means of following those people that left tips you liked or that have liked or saved your tips) and to constantly review your experience of urban space (tips, ratings, etc.).

Seen as ideological apparatuses, in sum, the interfaces of Swarm and Foursquare retain the basic tenets of the interface of classic Foursquare. Taken together, they interpellate users to lead highly mobile lives geared towards new and aleatory encounters (socially and spatially) in a competitive environment. Yet Foursquare City Guide foregrounds another tenet. Users also are constantly interpellated to rate and review the urban experience by means of short form tips, (broken) hearts, and up- and down-voting geared towards quick, brief and emotional responses that tend towards the positive (rather than the negative).

4.1.3 In Search of a Business Model

The above described iterations of Foursquare were mainly necessary because Foursquare has been struggling to monetise all of the location and user data that it has amassed over the course of its existence. According to Frith's (2015, p. 97) very detailed analysis of the relationship between Foursquare, venture capital and monetisation, it has been precisely due to the pressures of venture capital that Foursquare has seen so many iterations and subsequently split into Swarm and City Guide. Early monetisation efforts focused on partnerships with businesses. Users could, say, get discounts on products when they checked in at a venue. And merchants could pay a fee to access data about consumers and consumer behaviour ('foot traffic', for instance) in their shops through the Merchant Platform (Frith, 2015, p. 104). Yet location-based advertising and the Merchant Platform didn't result in a steady and profitable revenue stream. It has been only very recently that Foursquare can confidently assert that it is about to make a profit (Wise, 2017).

Interestingly, its profitability doesn't derive from its consumer applications but from its central position in the ecology of applications with location-based functionalities structured around location sharing, local search and context-based recommendation. Foursquare's "unlikely survival", Gell (2017) wrote in *The New Yorker*,

> can be attributed not to what Foursquare delivers to users – the revenue from its […] consumer apps, Swarm [and] City Guide […] remains modest – but to what users have been delivering to Foursquare.

This works as follows. Foursquare's data is powering over a hundred thousand other

smartphone applications by means of its API, including Instagram (before its takeover by Facebook), Flickr, Snapchat, Twitter, Pinterest, Uber, and Microsoft (see Gell, 2017). When one combines all of the users of all of these different applications, Foursquare has hundreds of millions of users interacting with its database (see also Frith, 2015, p. 105). This results in ever more data about ever more locations. Foursquare has recently begun to charge the larger of these developers a fee to use their data (Finley, 2016). Foursquare, in other words, has quickly established itself as a 'Google of local search and context' (rather than the 'Facebook of places' it had set out to become) and now has the ambition – and is well on its way – to become the "location layer of the internet" (cited in Frith, 2015, p. 105).

4.2 Algorithmic Modulation: The Orchestration of Chance

In this section, I will argue that the algorithms of Classic Foursquare – and, by extension, Swarm and City Guide and similar applications – modulate urban space in order to orchestrate chance (see also Van den Akker, 2015). This is to say that the modulations of Foursquare, or similar applications, transform, in a structural manner, the chance character that characterises urban life. Users of Foursquare, after all, continuously run into unexpected opportunities presented by circumstances. The notion of chance orchestration, then, helps to come to terms with, first, the ways in which Foursquare enables aleatory social and spatial encounters in the city and, second, the ways in which users become aware of, and act upon, the digital layers with folk knowledge (tips, ratings, etc.) that users of Foursquare are able to create and hang in, or lay over, public spaces. These site-specific layers may result in unexpected spatial encounters or may trigger unexpected spatial practices, as they contain practical tips, critical reviews or poetic observations – anything, really.

Mobile Information and Communication Technologies have been traditionally used not only as a means to communicate over long distances but also as a means to coordinate social interaction in space and time. Richard Ling (2004), most famously, observed that mobile phones are used to "micro-coordinate" social interactions in public spaces by iteratively adjusting, in real time and in midcourse, the most convenient place and the most appropriate time to meet (pp. 69–75). More recently, the proliferation and popularisation of smartphones, equipped with location-aware technologies such as GPS, has facilitated related yet different forms of social coordination. Sutko and de Souza e Silva (2011) observed, for instance, that locative mobile social networks (LMSNs) are primarily used to coordinate sociability in the city (and, secondarily, to explore new places) and that location-based mobile

games (LBMGs) are primarily used to explore new urban spaces (and, secondarily, to coordinate sociability) (pp. 815–817). They (2011) write:

> On the one hand, LMSNs […] encourage users to communicate and coordinate with other people as the end goal of using the application. As a consequence they might become familiar with places. On the other hand, LBMGs' goals generally include exploring different places in order to play the game. Eventually players might bump into other players and potentially socialize with them (p. 817).

These observations lead us to two interrelated points. It should be noted, first, that both Ling and Haddon (2001) and Sutko and de Souza e Silva (2011) point to the urbanisation of society to contextualise, and explain, the use of, respectively, mobile-based coordination and location-based coordination. The growth (e.g. demographically and geographically) of cities, they argue, shifts the balance to the use of one's position in urban space rather than the use of clock time to coordinate social life. Ling (2004) suggests that in mobile-based coordination one's location ('I am here. Where are you?') determines the reiterative adjustments of the designated place and time to meet, resulting in a softening of time schedules (pp. 73–75). Sutko and de Souza e Silva (2011) go even further to suggest that in location-based coordination "people may increasingly rely on the visualization of space rather than the management of time", resulting in a further trivialisation of time schedules (p. 815).

The second point relates to what Sutko and de Souza e Silva (2011) describe as the tension between "autotelic playfulness" and "teleological navigation" or, put simply, chance encounters and instrumental coordination (p. 816). "The point we are trying to make here", they (2011) write,

> is that acts are playful when things are left up to a certain degree of chance […]. When acts become too structured or goal-orientated, they lose their playfulness. However, it seems that a chance encounter can become a teleological and hence less playful endeavor when the goal of coordinating with a specific person or a group of persons becomes paramount. Therein lies the potential for a shift from autotelic playfulness to teleological navigation (p. 816).

They seem to suggest, here, that location-based media afford either the facilitation of chance encounters or the (micro-)coordination of social or spatial interactions (or something somewhere in between these dichotomous poles).

I do not necessarily disagree with the above-described points. Yet the following arguments are intended to add another theoretical perspective to the debate on the use of location-based mobile media and to critically intervene in the debate on the tension between (micro-)coordination and the aleatory. I will do so, first, by arguing that users of location-based media oftentimes *orchestrate chance*. This notion – chance orchestration – is not a substitution for various forms of (micro-)coordination but should be seen as a supplement to these practices, as users neither coordinate their social and spatial encounters nor simply leave these encounters to chance. Second, I will theorise chance orchestration along the lines of Lefebvre's theory of moments and De Certeau's theory of occasions. Although mobile-based- and location-based coordination have indeed resulted in the relative dominance of place over clock time in the coordination of social life, the notion of chance orchestration, thus theorised, demonstrates that the theoretical debate about the use of location-based mobile media should remain attentive to its temporal aspects. This is not to say that I will argue for a renewed appreciation of clock time (i.e. *chronos*) but that the Lefebvrean moment and the Certeaudian occasion point towards the importance of "right points in time" (i.e. *kairos*) when it comes to the use of location-based mobile media (see, for instance, De Certeau, 2002*,* pp. 43, 83, 98).

4.2.1 Walking in the Hybrid City

Chance orchestration seems to be a rather oxymoronic notion. In computer handbooks, after all, orchestration refers to the creation of assemblages of hardware, software and human operators to deliver very specific services, to *eliminate* chance. Yet this oxymoronic notion starts to make a lot more sense when theorised along the lines of Henri Lefebvre's 'theory of moments'[7] (2002 [1961]), pp. 340–358; 2003, pp. 166–176) and Michel De Certeau's 'theory of occasions' (2002), which the latter used, perhaps most famously, in his essay on walking in the city (pp. 91-110).

A moment, Lefebvre (2002 [1961]) claims, "is not just any old instant" (p. 342). In a moment one perceives the glimpse of a possibility, an opening in the cracks of the everyday, whilst being in the midst of the city's bustle, suddenly and unexpectedly, *by chance*

[7] The Moment, to be sure, does not pertain to such dramatic instances of revolutionary fervour as, say, the 1848 Commune or May 1968 – quite the contrary (Lefebvre, 2002, pp. 340–358; 2003, pp. 166–176). Most of the time, if not always, Lefebvre uses the notion for a "more modest", but "broader" phenomenon to be situated within the "history of the individual in his everyday life" (Lefebvre, 2002, p. 344).

(Lefebvre, 2002 [1961]) pp. 343, 348). Although 'chance' seems to be a rather straightforward notion, it is as hard to come up with a definition, as it is difficult to list all of its uses, meanings and connotations (as it is for so many of the seemingly self-evident notions that come under scrutiny when studying everyday life). For the notion of chance and its related categories have, as De Mul (2014, p. 24) shows, a rather confused and confusing history, which can be traced back to Aristotle's writings and its various translations, interpretations and adaptations in Latin and, ultimately, the various vulgar European languages. Yet there are three fundamental categories, which are also referred to by Lefebvre in relation to the theory of moments. He (2002 [1961]) writes, for instance, that the "circumstantial content" of the moment derives from "something *happening* close by, something *contingent* and *accidental*" (p. 346, my italics). Let me briefly explain these fundamental categories (in reverse order).

First of all, chance can be conceived of as the accidental, which refers to the circumstantial, non-essential attributes of something, anything (De Mul, pp. 2014, 24–25). Whereas man's essential attributes are that he is born, and ultimately dies, someone's gender and race, habitus and habits, career path and life trajectory are accidental. Similarly, and more related to this chapter's topic, the essential attributes of a smartphone are mobility, connectivity and locativity, yet whether one uses a BlackBerry or an iPhone, Gowalla or Foursquare is accidental.

Second of all, and more interestingly, chance can be conceptualised as the contingent, which refers to anything that is possible, to anything that is neither impossible nor necessary. The contingent is that which could possibly be but has no facticity or that which could have possibly *not* been but does have facticity. During our everyday dealings with the world and with others we, in fact, constantly navigate such contingencies as we are presented with countless possibilities of which only one at the time can be actualised. Once a certain possibility is actualised, moreover, some (chains of) possibilities are closed off and others open up (De Mul, 2014, pp. 25–27). When you for instance decide to accept a friend request of a so-called 'familiar stranger' (Milgram, 1977), you set in motion a chain of events that might lead to an enjoyable conversation or an amicable relationship – although you befriended the familiar stranger as the possibility presented itself, it could have been otherwise.

Lastly, chance can be conceived of as fate, which refers to all those things that happened to us while we were busy making other plans. Whereas our contingent dealings with the world and others presuppose a set of possibilities, presented by circumstances, of

which some are chosen to be actualised and others are chosen to be discarded, fate just comes by uninvited, either as a wanted or an unwanted guest, independent of our practices. Chance as fate can, in other words, be used to describe both *unforeseen* events and *unintended* consequences (De Mul, 2014, pp. 27–31). In the context of the use of Foursquare, the first category might relate to a sudden 'notification' that one of the users you befriended has overlain the space that you are traversing with a site-specific layer of folk knowledge, triggering an unexpected spatial practice or spatial encounter. The second category relates to anything that happens after a certain practice, which could not happen without that particular practice, but has never been the goal of that practice. Aristotle gives us the example of the man who goes to the market to buy sustenance, but runs into one of his debtors (idem). Yet one could also think of someone who travels home from work and is notified by Foursquare that his friends are having a coffee just around the corner so that he can stop by.

The moment is thus born of the everyday and in the everyday (Lefebvre, 2002 [1961]), p. 351). As soon as a moment is perceived, moreover, "a choice […] singles it out and separates it" from those transitory instants that ordinarily make up everyday life (idem, p. 344). This choice reorganises the here-and-now as the moment is "closed off by constitutive decisions. Anything which cannot be included is chased away" (idem, p. 353). However, the attempt to realise its possibilities is of limited duration; the moment cannot last. It instantaneously emerges from everyday life, temporarily gains momentum, until it definitely exhausts itself (idem, p. 345). This tragic dimension of the moment does not make the attempt futile – on the contrary. It creates a 'history' and it is 'memorised' and future moments are recognised on the basis of its legacy (idem, pp. 345–346).

Readers who are familiar with the writings of De Certeau might have already discovered, between the lines and in an embryonic stage, most of the central arguments of *The Practice of Everyday Life* (2002). It can be argued, after all, that De Certeau built on and expanded Lefebvre's work on social space and everyday life and that the linchpin holding together the elements that support most of the Certeaudian edifice – i.e. the famous distinction between strategies and tactics – is the theory of moments disguised as a theory of occasions.

De Certeau's (2002) analysis of the practice of walking in the city is the paradigmatic case in point. On the hand, the argument goes, spatial strategists organise an "ensemble of possibilities […] and interdictions", related to the dominant ways of "conceiving and constructing space", by means of which everyday practices are assigned a proper place, and a proper time. On the other hand, walkers manipulate this regime of set practices by tactically taking advantage of occasions to seize opportunities presented by circumstances (idem, pp.

xix, 43, 83, 98). Tactical practices, then, "use, manipulate or divert" by taking advantage of occasions – "right points in time" (idem, pp. 29–30) – offered by the urban context at hand.

To be sure, De Certeau deliberately uses a temporal notion to describe the tactical nature of spatial practices. Given the fact that one must "play on and with a terrain" that is strategically produced, taking advantage of occasions requires a certain "tactical mobility", which "must accept the chance offerings of the moment, and seize on the wing the possibilities that offer themselves" (idem, p. 37).

Occasions, importantly, consist of "heterogeneous elements" to be combined in an "intellectual synthesis" that "takes the form […] of the decision itself; the act and the manner in which the opportunity is seized" (idem, p. xix). Constitutive decisions include some elements of the given circumstances, and exclude others, by processing, in a fraction of time, all relevant data concerning the occasion, the opportunity and the possible outcomes. These constitutive decisions are mediated – and this is his most valuable contribution to Lefebvre's insights – by a form of knowledge ('*metis*') that is founded on experience, practical wisdom and making-do, and is "composed of many moments" (idem, p. 82). He rather elegantly describes *metis* as a "memory" or as the smallest of volumes of an encyclopaedia, which nevertheless hold both a "treasure of past experiences" and an "inventory" of future opportunities (idem, pp. 82–83).

4.2.2 Chance Orchestration

What do the combined insights of Lefebvre and De Certeau tell us about the practice of walking in the *hybrid city*? What is it that we do when we use Foursquare? It could be argued that users of Foursquare are outsourcing some – not all! – aspects of their *metis* to their technological extensions. Although the application seems to enable an infinite number of chance encounters and random discoveries, users do not become aware of all the things that are happening in their surroundings and they do not become aware of all user-created layers in their environment. Foursquare does not turn the screens of our smart-phones into boundless windows of opportunity. For the constitutive decisions that include some elements of the given circumstances and exclude others are mediated by one's *digital metis*. The chance offerings of the moment are orchestrated by means of the use of Foursquare.

We can discern two forms of chance orchestration: network orchestration and software orchestration. Let me briefly illustrate these forms.

Network orchestration can be described as the adaptation of one's social network to one's needs, desires and wishes. By befriending (i.e. including) and unfriending (i.e.

excluding), users constantly groom the quantitative and qualitative aspects of their social networks. Geosocial networks enable users, in other words, to become aware of a more or less well-defined set of social and (spatial) practices happening in their (not-so-)immediate surroundings. Foursquare facilitates, in other words, the creation of an archive that provides an insight into the history of the spatial practices of one's social peers and a map that provides an oversight of their current spatial practices. Users are alerted by a push-notification, for instance, when a friend checks in at a certain location ("Julie just checked in at..."), which enables users to meet up when they accidently happen to be nearby. Similarly, Foursquare sends push-notifications when users coincidentally pass by a place or spatial practice that has been (previously tagged and) recommended by one of the users they have befriended ("since you're so close, why don't you try Julie's tip"). And, finally, users can subscribe to 'to-do' lists, created by other commoners, which send notifications when one by chance stumbles upon a point of interest.

Software orchestration can be described as the willingness of users to rely on the algorithms that filter the heterogeneous elements that make up chaotic urban environments. By using geosocial networks such as Foursquare, users constantly update databases containing the digital traces of their spatial practices – consciously and unconsciously. These databases contain our personal and collective track records (who, what, where, when and with whom) or, put differently, the accumulated memories of previous occasions and moments. They are, in other words, in many ways similar to those 'encyclopaedias' that hold both a treasure of past experiences and an inventory of future opportunities. This should not come as a surprise. In our contemporary culture, as many a philosopher of technology has argued, the database ontology underlies most, if not all, aspects of our everyday lives (Manovich, 2001; de Mul, 2009). As data can be (re)combined at will, these dynamic inventories theoretically consist of an entirely random and sheer infinite list of opportunities and possibilities. Yet this is not the case. Whether kept in encyclopaedic form or as an actual database, the accumulated memories of previous occasions and moments (in)form both the capacity to recognise new ones offered by circumstances and the attempts to tactically take advantage of the possibilities and opportunities thus perceived. Classic Foursquare's explorer function, for instance, enables users to perceive a series of recommended places and spatial practices, located within a range of 250 metres to ten kilometres. These personal recommendations are based on the aggregated spatiotemporal data of individual users, befriended users and all other users. Foursquare's algorithms select, in other words, the places that someone has already visited ("you've been here 9 times"), all similar places ("you've been to two related places"), the places that have

been visited by his or her friends ("1 friend has been here") and the places that will probably be of interest to a user as other people with similar profiles have already checked in there ("people who go to this place, tend to go to that place"). Additionally, users can look up which places proved to be popular over time ('recommended') and which places are being busily frequented at the moment ('trending').

We can conclude, therefore, by observing that the orchestration of chance by means of network orchestration and software orchestration entails that users neither accept the aleatory character of city life nor circumvent it by coordinating spatial and social interaction. In the resulting situation, paradoxically, the number of possible chance encounters goes up, while the odds of walking into something or someone interesting by chance go down.

4.3 Openings and Conclusions

In this chapter I hope to have shown that Foursquare's interface interpellates users to lead highly mobile lifestyles geared towards aleatory social and spatial encounters with new people and places that match their interests, tastes and intents, while turning the urban environment into a competitive environment in which constant competition and constant feedback loops are the norm. This closely resembles the preferred lifestyle in the urban mode of production and mirrors both the drift-like spatial practices in, and the spatial annotations of the representations of space of, hybrid space that we encountered in chapters 2 and 3 of this dissertation and that are expected of networked dividuals in hybrid space. Foursquare, in other words, is a key example to illustrate how today's capitalism is shaping in its own image the hybrid spaces that make up our everyday lives.

Meanwhile, the case study into Foursquare's interface highlighted another aspect of the preferred way of life in hybrid space. Users are interpellated to constantly provide feedback about how they *feel* when they are at this or that place (through short-form comments or ratings with 'hearts'). This reminds us of psychogeographic maps of the situationist-inspired locative media art scene. The affective register of hybrid space, however, is supposed to be either practical-neutral or optimistic, as demonstrated by the gentle nudge to comment on "what's good here", the corporate communication emphasising that particularly nasty comments should be 'downvoted' and helpful comments should be 'upvoted', as well as the system of personalisation based on votes, comments and preferences itself (which results in an increased visibility through the interface of practico-neutral or positive comments and a decreased visibility of anything that might generate a negative vibe for this or that user). That

which *matters* to anyone user is that which might feel good, an anticipation based on the outsourced *metis* of a user.

This brings us to the analysis of the functioning of Foursquare's algorithms. I argued that the notion of chance orchestration is helpful to come to terms with the daily use of such applications, as users neither coordinate their social and spatial encounters nor simply leave these encounters to chance. The choices that set certain occasions or moments apart and the decisions to include some elements of the urban environment and to *chase away anything that cannot be included*, are, in fact, mediated by a form of *digital metis.* Foursquare thus enables users to upgrade – to cyborg-like proportions – their capacity for *kairos,* which increases their ability to take advantage of the moments or occasions that are born of the everyday and within the everyday. This results in a structural transformation of the chance character that characterises urban life.

In Part III, I analyse the dominant perceptions, conceptions and experiences of hybrid space by means of case studies into the spatial practices of gay men and teenage girls as they make do – and often go about town with manic restless – in the urban operating system, as well as the corresponding cognitive maps (in a phenomenological and ideological sense) and lived spaces.

PART III

Bubbles Bursting with Desire, Spheres Teeming with Intimacy

> On the subjective side, as Simmel has suggested, the close physical contact of numerous individuals necessarily produces a shift in the mediums through which we orient ourselves to the urban milieu, especially to our fellow-men.
>
> – L. Wirth (1996 [1939]). *Urbanism as a way of life*, p. 100

CHAPTER 5
LONDON CRUISING
The Synchronisation of Desire

> If the socius is a megamachine, the fuel that drives this machine is desire, though desire is shaped and orchestrated by its insertion into this megamachine.
>
> – K. Surin, 2005, p. 256

> It's very much about seizing the unexpected moment; all about: *hey, the green light pops up…*
>
> – Anonymous respondent

5.0 Introduction

On the day that the first athletes competing in the London 2012 Olympics checked in to the Olympic Village, Grindr, a geosocial network for gay men, blacked out across the city. Never wasting a good story by fact-checking it to death the tabloids immediately jumped onto it. "Grindr to a halt: Gay dating website crashes due to overuse within minutes of Olympic athletes arriving in London" (Mudie, 2012) – it could be read in ever so slight variations from *The Daily Mirror* to *The Sun* (Rosen, 2012). One Londoner reportedly (Mudie, 2012) said:

> It happened almost as soon as the teams got here. Either loads of athletes were logging on to meet fellow Olympians or were looking to bag a local. The Grindr system obviously couldn't cope. It took 24 hours for the app to get back up and running, much to the relief of all concerned.

It soon became clear, however, that "correlation does not imply causation", as Rosen (2012) of *The Atlantic* put it, upon checking the story with Grindr. In an official reaction to this – without a doubt very welcome – media hype, the founder Joel Simkhai (in Rosen, 2012) replied (in the tongue in-cheek fashion that is typical for all of the company's communication):

> While we'd love to believe that the best-built men in the world all dressed up in Lycra and congregating in one place can generate a huge increase in Grindr traffic, we can say with confidence that the arrival of the Olympic teams had little or no effect on our server. The truth is that there are many factors that cause a technological service disruption.

The story may not have been correct. Yet the fact that the black-out made headlines says as much about the Olympic fever that overtook the United Kingdom that summer as it points towards the British buzz that has surrounded the application ever since its launch in 2009.

The flurry of newspaper articles describing and debunking Grindr's meltdown of Olympic proportions directed my attention to London as a possible destination for my research on Grindr. Reading up on Grindr's statistics I learned that London stands out in terms of both absolute and relative numbers of users. At the time of writing, the city boasted over three hundred and fifty thousand Grindr users (Mudie, 2012) on an estimated LGBT (!) community of five hundred thousand (Aspinall, 2009, p. 51). Only Facebook, by comparison, approached these levels of penetration and density among Londoners (Social Bakers, 2012). If anything, then, London could be described as the "Capital of Grindr" (Hook 2012).

Yet it's not only London that is hosting a thriving Grindr community. The application quickly became the talk of the town in every other city in, especially, the US and the EU, gaining a reputation for itself by word of mouth. As of today, the application has attracted over six million users across the globe. The story of Grindr resembles in many ways the classic tale of humble beginnings and enormous successes that characterises so many of the services and applications we are using in our everyday lives. Stories such as Joel Simkhai's have been told and retold up to the extent that we can all dream up the main ingredients. A simple idea. A garage or an attic. Funding on a shoestring. Beta version. Viral proliferation. The network effect. Omnipresence. Yet it remains astonishing how fast some ideas develop into applications that change the ways in which people go about their daily lives. Simkhai (Polly, 2010) once explained that he got the idea for the application when Apple launched the second generation iPhone, in 2008.

> It was almost as if someone was handing Grindr to me on a silver platter. The first iPhone didn't have GPS, and it only had about eight apps. They were all Apple apps, too – you couldn't develop your own. It really wasn't that great a device. But in the same announcement of the second-generation phone, they said: "This phone will have

> GPS and now you can create apps!" I was like: "Wait a minute! I know an app I want to do!" […] My notion was use GPS, see who else is near. Simple as that.

He contacted a developer and a designer – and six months and $5,000 later, the three men launched Grindr.

Grindr's basic functionality is, indeed, quite simple. Upon opening the application, users face a cascade of profile pictures, sorted, from the top left side to the bottom right side, by means of proximity (see figure 5.1). These profiles can then be tapped to view profile information and, if anything arouses interest, start a chat session with someone nearby (see figure 5.2). These chat sessions are, almost by definition, intended to make arrangements for a friendly meeting, a romantic date or casual sex – either on the spur of the moment or after some time. Grindr allows users, in other words, to see the approximate distance to other users and assists with establishing social relations among random strangers who happen to use the same application. Interestingly, the degree zero of these social relations is nothing more than shared intentions (sex, love or friendship) and shared interests (compatible profiles), something that points towards the broader cultural ramifications of the use of geosocial networks in public space. Geosocial networks facilitate, apparently and potentially, the ability to recognise peers among urban crowds that are, more often than not, anonymous, faceless and amorphous.

To be able to facilitate meetings the application ideally requires a user network with a relatively high density. It made sense, then, to study the application's impact on the everyday lives of its users in London, Grindr's capital. However, and in all honesty, my decision to travel to London for my research was as much informed by the application's popularity in the British capital as it was influenced by a lack of success convincing people that being interviewed would be worth their while. In the previous months I had been trying to find interviewees in Antwerp, my hometown. To this end I had created a Grindr profile stating that I was looking for interviews (and friends) rather than love or sex. Yet I had little to no success as practically everyone I spoke to friendlily declined (though not *always* in a polite manner; there can be extremely rude people on Grindr). In all those months I managed to arrange for one not very successful interview with a man who shut up like a clam as soon as he found out that I was neither attracted to men nor falling for his charms. He told me that he and his friends mostly see Grindr as a "catalogue" that helps them to pick and choose from among the available men in the vicinity. He made it clear that I was not supposed to be in that catalogue. I can only speculate as to why my attempts were so unsuccessful. Perhaps people could not be

bothered to respond to my trivial request whilst looking for friendship, love or sex? Maybe they didn't trust me enough to share their intimate Grindr experiences? And who could blame them?

These problems were circumvented when a friend-of-a-friend introduced me to some Londoners who had been using Grindr for at least two to three years – and who, in turn, introduced me to their friends. In total I was able to interview eight men in their twenties and thirties about the impact of Grindr on their social spaces and their social lives. The interviews were open-ended, unstructured and were conducted in public houses and coffee places across the city (see 0.4 for an outline of the Interpretative Phenomenlogical Analysis (IPA) methodology that underpins the sampling strategy and the interview design). These conversation all took place in a generous and open-minded spirit, providing a wealth of material and conveying a diversity of experience that might come as a surprise to those who see Grindr as a simple catalogue for casual sex partners – a "net-a-port-gay.com", as someone described it (Polly, 2014). It can be like that. But it is different things to different people, too.

In section 5.1, 'Beyond Gaydar', I discuss the main features of Grindr's interface in contradistinction to traditional online gay dating sites. I argue that Grindr heightens spatial awareness and makes visible, due to its very basic interface, all other users in the vicinity. This enables the becoming visible of a very diverse user group with very diverse intentions and enables spontaneous meet-ups between random strangers who happen to be in the same neighbourhood. The environment of the application reflects, in other words, the chance character that ordinarily characterises urban public space.

In section 5.2, 'Beyond Privacy?', I discuss how Grindr users reflect on privacy issues and alter their behaviour accordingly. It appears that users do not really care about Grindr collecting user data, but that they do reflect on what they share on Grindr and are careful to avoid that anything that might be regarded as inappropriate if it becomes public.

In section 5.3, 'Foregrounding Queer Space', I discuss how, where and when users open the application to foreground queer space in and throughout their daily lives. Users open the application constantly and persistently. Grindr therefore is part and parcel of most, if not all, of the social situations that make up everyday life.

In section 5.4, 'Sensus Communis', I discuss the sense of community that Grindr generates, as well as the opportunities it affords to make new friends. Contrary to what most people believe, Grindr is not just a cruising app. It also enables amicable relations by turning strangers into friends and neighbours.

In section 5.5, 'The Synchronisation of Desire', I discuss two other functions of Grindr. Grindr affords both flirting and cruising and, in this sense, can be seen as a tool to manipulate the chance character of urban life by synchronising desire. Paradoxically, however, this affordance plays into, and rides on, the increasing invisibility and decentralised nature of the queer geographies in, and of, hybrid space and points towards a very specific politics of the aesthetics of public space.

5.1 Beyond Gaydar

Grindr is often seen, at first, as yet another version of an online dating or hook-up site. Most, if not all, of the men I interviewed, mentioned, at one point or another, that they started using Grindr in addition to the more traditional sites they have been using for years such as, especially, Gaydar, an online platform for gay men. Grindr however is not simply 'Gaydar with GPS.' As I have argued in the introduction, Global Positioning technology is not just another feature of the ICTs we have grown accustomed to in our everyday lives, but "remediates" these technologies, resulting in different logics with different effects on our experiences and practices (Bolter and Grusin, 2000). "When you go back to when there were no iPhones", one user (2) for instance explained the difference between Gyadar and Grindr,

> there would be no way that I would be able to meet someone for sex who is just a few hundred meters away. What I would do, I would need to go home and go on Gaydar and I would search – you can search by postcode – on, for example, the post code of where I worked or or where lived, and I would try to find locals that way. But that's not that useful […].
>
> Gaydar divides the chat rooms into, like, central London, east London, north London; it is much more broad. So if you search by postcode, you'd probably get, maybe, 50 people to choose from. And if you don't like someone in the postcode you are in, you have to type in another postcode. Grindr introduces the possibility of encounters with gay men wherever you are, at any moment.

He (2) further reflected on the difference between Gaydar and Grindr:

> Compared to dating sites, I found it intriguing that Grindr was based on distance; and that it helps you find out who the gay people near you are. […] Grindr seems to erase

> any, sort of, boundaries that you have across the territory – whether it is an office or a shop or someone's home – and you are immediately in contact with potentially anyone in that place who happens to have Grindr. In that sense it is really powerful and useful. With half of those you would not necessarily want or need to talk, but Grindr does level the territory quite well…

There are a number of points worth expanding. The most obvious point is that Grindr can be likened to personal radar as it heightens one's spatial awareness. Its interface – though not exactly a conventional radar – visualises the relative distance to all other users in the vicinity and, when regularly refreshed, whether these users are moving towards or away from one's current location, or not at all. Grindr, in other words, makes visible the otherwise invisible, peeking around corners, seeing through walls and scanning the social environment.

The second point is that Grindr displays almost *any other user* who happens to be nearby – indiscriminately. The application contains, in other words, no mechanisms for inclusion or exclusion. Whereas traditional dating sites allow users to filter the user pool according to all kinds of criteria – anything from education to hair colour to interests – Grindr provides only an age filter, ranging from 'no minimum' to '99' and everything in between (which seems, by the way, unfair towards centenarians). The environment of the application reflects, in other words, the randomness that ordinarily characterises urban public space. It is interesting to note, as an aside, that in this sense Grindr differs from geosocial networks such as Foursquare (see chapter 3), which allow for a much smaller window for serendipitous events. With Grindr you simply cannot anticipate whom – or rather: what type of man – you might run into. This is not to say that users have no tools whatsoever to include some users and exclude others. As we will see in section 5.5, however, the user pool is filtered *a posteriori* rather than *a priori.*

The last point is that this heightened spatial awareness enables instantaneity or, as one user put it, "that whole 'instant'-thing; that there is someone to meet, literally, just around the corner". Grindr is explicitly designed to enable spontaneous meet-ups between random strangers that happen to be in the same neighbourhood. The whole dynamic of the application is, in other words, geared towards social interaction in the physical environment. Its straightforward interface does not include elaborate profiles, check-ins, matching algorithms, status updates, noticeboards, mailing services or wink, smile and like buttons – nothing that keeps users within the app environment Instead, the interface consists of a series of thumbnails (with a brief tagline and a few stats), as well as a simple chat. This stands in sharp

contrast to many social network sites and, especially, traditional dating sites, which are often designed to seduce users into spending large chunks of their time online (see, also, Schouten et al., 2012, pp. 105–106; Woo, 2013, pp. 42–43). This brings me to the question of the application's revenue model. How does Grindr make money? Surprisingly, the application has never depended on investors. Unlike other major social networks (Twitter, Facebook) or geosocial networks (Foursquare, Gowalla), Grindr has been self-financing from the start, and now even is profitable. The company has two important sources of income. On the one hand it has a free version that earns revenue from advertising. On the other hand, it has Grindr Xtra, a subscription version, which has no advertisement and some extra features ('push notifications', as well as more 'profiles' and 'blocks'). As of today, the company does not target advertisements based on location and the spatiotemporal profiles of its users. Yet Simkhai, its founder and owner, does have such plans (cited in Rushton, 2011).

> You could be loitering outside Starbucks and it would say, 'Before you go into Starbucks, why don't you try this place and we'll give you a free muffin with your coffee. Or, if two people are located in opposite ends of town, we can say, 'We've noticed you two have been talking for some time. Why don't you meet at this bar, in the middle, and one of you can drink for free'. We're feeling up that market but we expect to launch some of those features [in the future].
>
> The potential of local advertising is huge, and location data becomes very, very important. Facebook went from zero to billions [in revenues] overnight, but I would argue that I'll know much more information about my users. I'll know the specific square foot where they are, and how they interact.

This should not come as a surprise. As we've seen throughout this dissertation, location-based marketing and advertising is one of holy grail of most app developers.

5.2 Beyond Privacy?

This aspect of our privacy however is not a real concern for the users of Grindr. All men I spoke to indicated that they never really reflected on the digitisation of their private sphere – or rather: not any longer. When I asked one man (6) about this, he sniggered and replied in typical fashion:

> I am quite relaxed about that kind of thing. Like, in a way, with Facebook you are just giving away everything. I've just come to accept that. And it's the same with Grindr.

This is not to say that the Grindr community is beyond *all* privacy concerns. As I previously argued (chapter 1.3.2), we should make a distinction between the *digitisation of our personal spheres* by governments and corporations and the *making public of our private lives* by others and ourselves when we discuss the notion of privacy – and the latter aspect most definitely influences the use of Grindr. Most of the users I interviewed do reflect, in other words, on the consequences of displaying their 'sexuality' – i.e. in the double meaning of the word: sexual orientation and sexual activity – within and through the app environment.

There is, first and foremost, the issue of location, which is, of course, related to sexual orientation. Using Grindr means being detectable by other users for being homo- or bisexual. Of course this is not a problem when these other users are not bigots. Unfortunately, however, there still are plenty around in our day and age. Grindr tries to pre-empt the possibility of being accurately located by not showing the exact whereabouts of its users. Instead, the application only shows one's distance to other users in the thumbnails, as well as everyone's approximate location on a map. Still, however, Grindr users are highly visible and easily located. Surprisingly, then, users rarely switch from an online status to an offline status, one of the app's features, in order to become 'invisible' to other users. "I don't tend to do that", one man (5) typically stated.

> For me the point is finding someone you like. So when they can't see you, it is kind of cutting off the routes to meeting someone.

Users are, put differently, not very afraid of so-called 'gay bashers'. For me, this was unexpected. I arrived in London just after the first YouTube videos of London 'Muslim Patrol', a neighbourhood watch of fundamentalists determined to rid their streets of 'non-Islamic elements' such as, indeed, gay men, went viral (and there are many other groups with some kind of hatred towards gay men). Yet the men I interviewed seemed to be undaunted by the possibility of running into a posse of gay bashers. One man (5) for instance observed:

> Yeah, that's in Bethnal Green. I have a much more political, rebel streak through me. Take, for example, public handholding. I won't date a guy when he won't hold hands in public. […] I am from a tiny northern town, where there is no gays, no black

> people, no Asians, you know, it's a small town, and I spent there nineteen years of my life hiding or pretending…
>
> Q. So it [*the visibility through the app – RA*] is almost like a badge of honour?
>
> Yeah, definitely.

It must be noted, however, that this attitude has as much to do with queer politics as it is given by the complete absence of incidents related to gay bashers using Grindr as some kind of *gaydar* ('gay radar', that is). There are no such stories doing the rounds within the Grindr community, something that would be unthinkable, especially in our interconnected age, if anything like that had happened. One man (6) told me that he sometimes was reluctant to open the application in certain situations:

> If I am on a night bus, I would be careful. If you are using Grindr you don't necessarily want to be seen using Grindr. Not because it is a shameful thing, but it could look like you are looking at pornography on your phone at times. And when I am on night bus by myself I don't necessarily… It's not always the safest place in the world to be on a kind of gay thing.

Only one man (2) among my respondents, in fact, told me about situations that come near the hypothetical situation that gay bashers would use the application to find potential victims:

> Although I am sort of reluctant to answer, because it makes me look like a massive racist, but in my neighbourhood, in Hagerston… ehm… because it has a very large... it's a very multi-ethnic… and ehmmm… and I noticed a couple of times that some people have pictured themselves not including their face and they've written in some kind of… sort of… I don't know what the word is… They are using some kind of language in their profile that is like… and then they have chatted me and it is written in a kind of… they haven't kind of followed the pattern that people normally follow in the questions they ask. And it has crossed my mind that maybe this person is not genuine, and that… there is a tension in some occasions in east London […] with all those religious communities. I have to say – living in this neighbourhood – that has entered my mind sometimes, walking home alone.

There are many interesting observations to make, here, concerning the *a posteriori* filtering of potential sexual, amorous or amicable meet-ups – and we'll come back to this in section 4.5. For now, it suffices to say that displaying one's location is not a real worry for the users of Grindr.

The second privacy issue is related to displaying one's sexual activity. As the app facilitates chatting and photo swapping alongside representing oneself in a profile, users run the risk that these intimate details are shared outside of the app environment by others rather than within the app environment by themselves. It only takes a hack or, even simpler, a screenshot in order to lose control over the media platforms that can be used to share these intimate details. Most of the users I interviewed indicated that they do reflect on *what* they share with other users. One man (7) told me, for instance:

> I am not afraid of the fact that Grindr collects all kinds of data – I probably should be – but I never think about this. Like the whole Facebook privacy thing… it never crosses my mind.
>
> But I worry sometimes about the stuff that I am sharing with other people… like photos. […] I have friends who are involved in student politics and they are *very strict* about what they talk about on Grindr, but I don't see myself in that kind of role, so…

This indicates, in other words, that users are to varying degrees careful not to send around images that are overtly explicit or potentially embarrassing – and for good reason. "Here is the thing", another man (6) said.

> There are websites online… and you may have heard about this… tumblrs that are Grindr-themed. And it's people putting up funny photos of people on Grindr and it's like… yeah, that could happen… When that Anthony Weiner [*the American politician – RA*] thing came along somebody said 'in ten years everyone will have a naked photo online'… we're just heading that way. […] But I have the feeling that I am not giving away a huge amount on that app.

The Tumblrs mentioned by the respondent are one of those aspects of online culture that is as fascinating as it is worrisome. Apparently, any unguarded moment can potentially lead to

public humiliation on sites such as ohgrindr.tumblr.com, grindrlulz.tumblr.com or guysofgrindr.tumblr.com, something that often results in self-imposed rules on the balance between explicitness and anonymity while swapping photos or exchanging messages.

5.3 Foregrounding Queer Space

One of the recurring tropes in the interviews is that Grindr is part and parcel of most, if not all, of the situations that make up everyday life. It is always there. It is there at work. It is there at home. It is there during constrained time and during leisure time. This is not to say that users are constantly browsing the environment or chatting to strangers but that they are opening the application regularly and consistently throughout the day. "I would use it", one respondent (5) said,

> during downtime at my work (that could be nine o'clock, eleven o'clock, twelve o'clock)… at home… in buses… when you are hanging out… when you are in a queue for drinks… when you are shopping… it's almost an automatic thing; not remotely a sex thing… it's almost like… you are not even aware that you are doing it. It's not constant and all day, it is more like consistent... It could be any time.

This description is in line with the results of recent surveys – conducted by Grindr and others – reporting that users on average open the application eight times a day, culminating in a total of one and a half hours daily (see Woo, 2013, p. 43). It once more emphasises that Grindr has rapidly nested itself in the everyday lives of its users alongside other social media platforms such as Facebook and Twitter. 'I use it everywhere', another man (3) put it.

> That's the strangest thing about it; something I hadn't quite expected. You sort of… like it does seem constantly on. I don't know if it's just mine but…. (laughs). It seems to be kind of… ever-present. It becomes a kind of background thing, So once you're there - in it - you just push a button you just push a button... so you are constantly checking… It's like email in that sense. Email isn't something, I think, that we sit down and choose to do and then walk away from… it is ever-present. It becomes part of the fabric of our lives. I didn't realise it could become like some kind of wallpaper or something that you could just keep checking into in the way you check your emails, like a reflex.

This apt comparison to our relation to email once more points out that for many users Grindr becomes an intrinsic part of everyday life. Yet we also touch upon one of the key features of geosocial networks *proper*. These new extensions of man allow users to *foreground* specific elements of the urban environment – both of the physical and the social environment – by tuning into one of their applications that are running in the background. Users are, for instance, capable of foregrounding the locations of their friends, the directions to the nearest tube station, the recommend places to visit or, as in this case, their distance from other people using the same application (and I use this general description to highlight the possibility of other apps structured around the location of those with shared interests). The users of Grindr, then, are constantly foregrounding (and backgrounding) a queer space that would otherwise remain largely invisible – whenever and wherever, all day every day.

I would like to make two related yet different observations. First, the users that I interviewed consistently and univocally evoked the notion of boredom to pinpoint the very moment that they decide to use Grindr (as is the case in this chapter) or any other smartphone application (as is the case with in the next chapter). Boredom, in other words, has been the most prolifically used trope throughout and across all of the 21 interviews I conducted for this dissertation. This seemingly confirms the analysis of the post-boredom structure of experience dominating hybrid space. Yet, second, this post-boredom structure of experience results – and this is perhaps a better description – in a sense of manic restlessness, as the very possibility of constantly displacing boredom by 'validating' one's feelings, 'mattering' the environment, and 'cramming' each and every empty moment results in a social situation in which one can – anytime, anywhere – get what you *can* want in determinate circumstances afforded by this or that mobile or locative interface in hybrid space.

In this context it must be noted, too, that the use of Grindr may sometimes border on the pathological. Some users indicated that Grindr's interface, with its emphasis on new faces rather than old acquaintances, could be so seductive as to interpellate excessive time wasting. Other users reported that they have at times had an unhealthy relationship to the application, going even so far as to describe the experience as addictive. Several users told me, for instance, that they have deleted and re-installed the application on more than one occasion, pointing to one of the cons of the manic restlessness that is triggered by the capacity to constantly foreground specific elements of the urban environment that matter to a user that finds itself always at the centre of a cluster of nodes in hybrid space.

A vast majority of the users that I interviewed indicated, however, that the pros of using Grindr ultimately outweigh the cons. Although they often have a love/hate relationship

with the application, Grindr serves many a useful and rewarding purpose. Grindr, one man (2) said, "puts the potential in any space you are in. It definitely made life easier in terms of meeting people".

The question remains, then, what kind of potentials Grindr affords? Where and how do users use the application? And to what ends? It must be noted that Grindr is many different things to many different people in many different contexts. I previously argued that Grindr's design is one of the main reasons for this diversity. It includes only one filter (i.e. 'age'), contains simple thumbnails with a photo, a name and a headline ('13 characters'), very limited space for biographies ('120 characters'), very broad statements of intents ('chat, dates, friends, networking or relationship'), as well as a simple chat. Users have, in other words, a lot of space to appropriate the application. There is one crucial design intervention, however, that plays into the diversity of its user groups. The profile images are subject to strict regulations of the company; imposed, initially, to meet the requirement of the app store of Apple (which monitors and deletes applications that allow nudity and profanity). Grindr users, then, are not allowed to use profile images depicting anything below the belt. As a result, Grindr cannot be swamped by sexually explicit pictures that may lead to discomfort among those who want to use the application for other purposes than casual sex. The relatively open design and the ban on nudity entails that the application accommodates very different user groups and facilitates a wide array of social practices – from, as I will argue, cruising and dating to socialising and community formation.

5.4 Sensus Communis

Many of the men I interviewed mentioned that Grindr can provide a sense of community. In a previous chapter we've seen, with Rancière and Lefebvre, that locative media art reflects, and anticipates, the emergence of an aesthetic regime of space within the representational regime of space, resulting in a proliferation of possibilities to redistribute the sensible. This implies that the aesthetics of social space – i.e. that which is common to the community – are increasingly determined by users, alongside corporate entities. Grindr seems to be a case in point. One man (6) told me – and it is worth citing at length:

> I remember when I was younger, and I was commuting, I liked to have a gay magazine with me, as a kind of sign. And Grindr fulfils something a bit similar to that. It's kind of the same thing, alerting people to the fact that you are a gay person on this train or

> whatever. The difference is that with Grindr you can see who else is there to talk to. […]
>
> You are living in a world where it's not always immediately apparent who is gay and who isn't, and, although it's not always a problem, sometimes it is quite nice to be aware of that stuff. […]
>
> Grindr gives you a visual representation of, like, a potential network of that… It can be scary, as it is not necessarily the most wholesome representation of gay people around you. But that's the thing… When I go for example to a concert or a festival you feel a bit less, kind of, out of place. And there is something quite nice about being on public transport and there are people and you can tell that they are gay. […] It, kind of, does something comforting; it's like a kind of community.

Other (4) users have indicated a similar sentiment – even in relation to spaces where they are very much at ease, such as their workplaces and their homes.

> Grindr is a tool to develop some sense of community […]. Having all these people around me gives a sense of belonging – at least it does me – and familiarity, and it reassures me.

This sense of community, then, must be understood in the double meaning of the notion. Its degree zero is the visibility of a network of men sharing something in common that forms the basis of a community. Its effect is the sense of being surrounded by those who partake in this community, and all social interactions that spring from it.

There is long-standing research across various disciplines – from cultural theory to queer studies to cultural geography – that underlines the heteronormativity of social space by arguing that representational spaces are shot through with power relations – "the heterosexual contract" (Butler, 1990, p. 338) – that produce and reproduce the binary norms of heterosexual relationships and gendered behaviours (alongside the hegemony of the white male) (see, for instance, Warner, 1991; Bell, 1991). This "phallocentrism of social space" (1991 [1974], p. 98), as Lefebvre put it, has been a central tenet of what has subsequently been called Queer Geography, a field that has burgeoned since the 1990s. In their groundbreaking collection *Mapping Desire* (1995), Bell and Valentine write that

> The women's, gay and civil rights movements emerged in North America and Europe in the 1960s and 1970s on a wave of social and political upheaval. But despite a growing awareness amongst geographers in the following decade of the need to study the role of class, gender and ethnicity in shaping social, cultural and economic geographies, sexualities were largely left off the geographical map. […] The hegemony of heterosexual social relations in everyday environments, from housing and workplaces to shopping centres and the street, is increasingly the subject of geographical research and has led [some] to outline the need for lesbians' and gay men's oppressions to be recognised by geographers […] (p. 4).

It would surpass the scope of this dissertation to review the various lines of inquiry, the plethora of empirical research, and the elaborate theoretical advancements since the publication of *Mapping Desire*. However, I will refer to some of the debates within the field of queer geography when required to contextualise my findings. For now, it suffices to realise that representational space is – implicitly or explicitly and to varying degrees – a heteronormative space, a given that may very well account for the sense of community that derives from using Grindr and foregrounding queer space.

This sense of community can manifest itself in rather surprising ways. Several users told me, for instance, that they sometimes ask for directions or suggestions when they are visiting places they have never been before or ask small favours to strangers who happen to be online. "Once it was raining really heavily", one man (2) said.

> And I didn't have an umbrella and I went on Grindr while waiting at the bus stop. It was properly pissing down and I was drenched, and I went on there and I was chatting to people and one guy said: "Do you want to come up and have a shower?" And I was like *not really* – but I asked him if I could borrow an umbrella. So I borrowed his umbrella. In this sense it can be quite practical, because it has this presumption of conviviality in some sense. I think – though some people can be quite hostile and a bit bitchy – it is somehow premised on being sociable and being friendly.
>
> So you can say to someone: 'Can I borrow your umbrella?' And when I travel I always ask people: 'What to do around here?' So I've done that quite a lot. And I made some

> quite good friends just by doing that (in London, as well as in Paris or Prague or Glasgow).

A majority of the users I interviewed stated that they made new friends through Grindr (which is in line with results of various surveys – see, for instance, Woo, 2013, p. 19). These new friends were either random strangers or familiar strangers living in the same neighbourhood, which reflects the ever-changing ratio between 'strange faces' and 'familiar faces' displayed through the app, depending on one's location. "When you are at home you get a lot of the same faces", one man (4) for instance told me, reflecting on this ratio.

> That enhances a sense of community. […] They might come over once and when we have a good time together on a physical and a conversational and personal level then I might want to invite them over again, to maybe do the same thing or just go to bed or just to hang out and have a chat because you are a really interesting person and I like you and you are in my neighbourhood and we have things in common. […] Still, there are a lot of changes happening. Once you have gone through the list of people you are interested in and you've spoken to them and you established what your relationship to them is, then it's a matter of who is new in the neighbourhood as a potential partner, a potential friend, a potential going out mate…

5.5 The Synchronisation of Desire

Grindr, as we've seen, can be many different things to many different people in many different circumstances. Besides making friends, however, the application is predominantly used for cruising and flirting and, consequently, to arrange sexual encounters or romantic dates. The men I interviewed, interestingly, made it clear that they use Grindr for *either* cruising *or* flirting – and there roughly were as many cruisers as daters. One user (3) reflected:

> There are sets of communities that bump up against each other, because you have multiple kinds of users. […] People signal this in their profile. What they are looking for. How much information they give. Curiously the words you can choose leave sex out of it, so you can chat, you can network, you can have a relationship, you can date, but you don't have like fucking or whatever as one of the categories. […] But you get

> each of those people. So you kind of rub up against each other and you go like… That's me; that's not me…

One of the most important ways to signal one's intention is tweaking the *mise-en-scene* of the profile picture. Users have developed a straightforward set of codes to indicate whether they are looking for sexual or non-sexual forms of social interaction when meeting up. A topless image is for sex; fully dressed is for anything else. Users have many more ways to signal to others what they are looking for. Some of these signals are very subtle (choice of words). Others can be very crude, as well as offensive. Most men I interviewed pointed out, for instance, that some users indicate in their profiles that they are not looking for meetings with fat people or coloured people ('no Asians, etc.') or any other variation on prejudice (something one of the above-mentioned Tumblrs, 'douchebagsofgrindr', tackles and exposes). There can be, in other words, an abusive streak within and across the community of users.

These general signals form the first *a posteriori* filter that users apply ('that's me; that's not me'). Subsequent filtering includes checking profile photos, biographies and intentions. Interestingly, the next step in the filtering process often is checking the little green dots that indicate who is online at the moment or has very recently been online (the dot remains green for a while after users have closed the app). As the dynamic of the application is geared towards social interaction in the physical world rather than the virtual world, users tend to message those who are available to meet more or less immediately (based on proximity and availability).[8] "For me", one user said:

> it's very much about seizing the unexpected moment. It's all about: hey, the green light pops up…

When the green light does not pop up and this or that man looks interesting enough to keep track of, users can add the profile to a list of 'favourites', which enables users to see the profile even when the person is not in the vicinity. "You favourite people", one man (6) explained.

> So the people on the top of your list are not necessarily the ones closest. Some of them are my friends. I don't have long conversations on Grindr, but occasionally you send

[8] One way of circumventing this is 'favouriting' a person that is offline in order to be able to arrange for a meeting when the person is online again. If you don't do that, the profile may not be visible anymore, as the user moves outside of the app's range.

> your friends a funny message. Some of them are possible dates or people that look interesting. You favourite them because it tells you whether they are online or not. When they are offline I can rarely be bothered to send a message. So you favourite them so you can wait until there is an opportunity to talk.

The last step in the filtering process is the chat, which is used, of course, to establish whether or not users feel, to put it in technical terms, compatible, as well as to coordinate a meeting.

Taken together these steps amount to what I would like to describe as the *synchronisation of desire*. For a meeting to occur, users with a shared desire need to be in each other's vicinity around the same time and/or need to use the application to iteratively synchronise their interactions so that they can operate in unison in time and space – in both cases, I would argue, seizing the unexpected moment as it presents itself in and through their everydayness (see Chapter Four). Let me elaborate this by means of the practices of cruising for sex and flirting for dates, which are both premised on a certain mode of desire, as Worton (1998) insightfully explains:

> Cruising is essentially about desire, a mode of desire – and of desire that is one sense unfocused. In cruising, it is the act rather than the individual object of desire. This act is necessarily and compulsively repeated, and what is sought is simply an encounter, a fleeting encounter where pleasure may be had (often anonymously), rather than an encounter *with* someone, a meeting with an individual who could have an identity and therefore become an Other. In this respect, cruising is radically different from flirting, which is playful rather than compulsive (and, furthermore, is not necessarily sexual). Also, unlike cruising, flirting has in all its forms a teleology of the Other – and a teleology of genuine coincidence, even if not always of permanent togetherness (pp. 39–40).

So whereas cruising is an unfocused desire for a potential sexual encounter, flirting is a focused desire for a potential romantic partner.

5.5.1 London Flirting

"Flirtation", Milan Kundera (1984) once wrote, "is behaviour leading another to believe that sexual intimacy is possible, while preventing that possibility from becoming a certainty; […] a promise of sexual intercourse without a guarantee" (p. 142). Grindr is an

endless series of such promises – or at least it can be, as long as people know how to navigate the plethora of cues concerning the intentions of others. As we've seen, Grindr is used for any kind of social interaction – from the platonic to the sexual. Walking the tightrope between pleasure and abstinence, the flirter thus puts himself in an awkward position. "Anytime you talk to someone on Grindr", one user (6) said,

> They could just be on Grindr because they are horny. […] I don't really enjoy random casual sex so I don't organise it, but the act of going on Grindr is not like going on Twitter. It's like: this person has chosen to be on Grindr so *maybe* there are possibilities, […] and getting into sexual territory is much easier.

The behaviour of the flirters I interviewed is very much influenced by this need to navigate the different communities that are using Grindr, especially since the ways of the flirter require much more subtlety.

To start, flirters are quite selective when it comes to meeting people through Grindr. They might use the application to browse the environment throughout the day and they might chat to a lot of different people over time, but they do not jump to every opportunity to meet someone for a date. "If I were in a café", one man (6) explained,

> and I was chatting to someone who is in the vicinity, I certainly wouldn't say: *I am going to see him now*… When they invite me for a drink I would rather arrange something for the next week. Because that will give me some time to talk to the person a bit. I can't think of any moment when I grasped the occasion to meet up instantly.

Taking the time to get to know the person they stumbled upon a little bit better, means, here, exchanging chat messages (as well as some images). Interestingly, most flirters indicated that these chat messages never amount to more than a handful of chat conversations. He (6) continued:

> You talk to people; you allow yourself a small amount of time and either things progress or not at all. […] Sometimes you would talk to someone and things get a bit flirty, and you can tell through *that* what the person is like… When they are funny – great – let's see what he is like in person.

And another user (5) explained:

> If they pass the photo test and I give them the benefit of the doubt, I usually send a generic '*hey, how is it going?*' kind of message. You can tell a lot from the response and usually you know pretty quickly whether there is any interest or not. And then you know straight away that you may be three messages away from meeting. I would usually try to limit it to five messages [chat conversations] before asking someone to have a coffee, because otherwise… you know… you don't want to go on a date knowing his mother's maiden name.

This underlines once more that Grindr's dynamic is geared towards social interaction in physical space.

One of the tropes in the interviews is that Grindr users predominantly scan the social environment when they are moving through public space. In doing so, they increase the possibility of stumbling upon an interesting random stranger. "It's quite fun when I am commuting", one man (6) explained.

> I am generally commuting in areas in London and anyone in London is potentially meetable […]. So it's like maximising your chances.
>
> When you are using it only in your house you are going to get the same bunch of people all the time. So when you turn it on when you go to another part of London, you'll notice you suddenly get a lot of messages, because you are novel and the people in the area go like: *hey, that's a new person***.**

Another man (5) said:

> There is very little change at home and very little change at work. The good point in buses and travelling is that you get into new parts of town […] and you get a new clientele instantly.

Interestingly, the flirters I interviewed developed an intricate set of tactics to make the most of their 'proximity' to strangers when they are moving through public space, while avoiding the

need to immediately meet up as the opportunity presents itself, allowing themselves to win some time to filter the environment. "You just favourite them", he (5) explained,

> and when you go home you can start chatting… That's one of the main strategies I use. It's almost like scouting a new football player for the team or something. You look at all the different profiles, you find the one you want and you find a way to get into a full conversation.

And another user (6) said:

> It's all about moving around town and putting your markers down – like, this person is worth coming back to… It's a bit like I am saving articles on the Internet that I want to read later… […] That's how I use it at home. Just to chat to the people I favourited.

However, there is another advantage to using the application to flirt outside of the neighbourhood where you live and the area where you work. The closer your flirts are, the more likely it becomes that you will run into them at a later date. "Proximity", one (5) man explained

> can also work the other way around. Let's say you had your five messages and you maybe had a cup of coffee and a few different dates and so on. And at that point you have the feeling*: actually it's not for me*... The problem is then that you've been nice to each other but you are still going to see each other – and it will be awkward. So sometimes having a little distance… If they live really close or in your street, you have to see these people quite a lot – so it's almost like a juggling act.

This juggling act reminds us of Axelrod's (1984) notion of the "shadow of the future" (p. 124), which can be defined, in short, as the probability that people will meet again. According to Axelrod, the larger the shadow of the future, the likelier it becomes that people will cooperate towards the same goal. Here, however, this notion seems to be somewhat inverted. The closer people are, the less inclined they are to cooperate (i.e. dating) towards the same goal (i.e. a relationship). Unless of course – and here the juggling comes in – the goal is deemed worth the risk. Interestingly, and as an aside, the shadow of the future does seem to

affect the likelihood that Grindr users will cooperate (i.e. socialise) with their neighbours towards the same goal (i.e. a sense of neighbourliness and, possibly, friendship).

5.5.2 Distributing Queer Space

One of the remarkable consequences of the use of Grindr is that it enables a *distributed* queer space that stands in sharp contrast to the centralised queer spaces – such as gay bars – previously used for meeting other gay men. Users can potentially meet someone to befriend or flirt with anytime, anywhere. The question therefore is what the effect is of the adoption of Grindr on gay bars, which are traditionally the places to be when a man wants to increase his chances of befriending or flirting with other gay men.

There have been various reports in the media and some rumours within the gay community that bars have been closing because they have seen diminishing returns since Grindr (and other apps) have gained popularity. This seems to make sense. Grindr, as one user (4) put it,

> takes gay activity outside of the usual places to everywhere (…). So now, for example, you might go to a bar or somewhere else that is not officially a gay bar – and you don't expect to bump into gay people for any kind of social activity… but you might get on Grindr and find somebody to have a drink – and maybe that's it and maybe it's not. It makes interactions more accessible. That's what Grindr has done.

And he (4) explained, more fiercely:

> [Grindr] is great because it means you don't have to go to a gay bar – which is cheaper and you can stay at home – and you get to know the people that you want to meet (and not every Tom and Dick and Harry in a gay bar); people who may have more in common with you than anyone you might meet in a gay bar.

Observations such as these have led some media outlets to jump to conclusions, arguing that gay bars are closing because of less and less and less clientele in the era of Grindr (see for instance Thomas, 2011; Rogers, 2012; Yiannopoulos, 2012; Dixon, 2012; Cushion, 2012). A similar story popped up during one of the interviews. "Since Grindr really took off", one man (5) explained,

> a few bars closed. One bar owner I spoke to pointed out that the people in his bar were either looking for sex or hanging out with their friends. With the recession people might go to bars a little less as they have a little bit less cash to use, and at the same time people just don't go to bars for sex anymore.
>
> With Grindr you don't have to put your best clothes on, do your hair, go on public transport, go into the cold, do all the flirting, talk to the guy and spend time buying him drinks… you just can turn on your app and fuck now.

This seems plausible. However, as Woo among others argued, I think rightly, bar culture is not at all incompatible with what I described as desire synchronisation – far from it. Although gay men might not *need* bars any more to flirt and date and whatnot, this does not mean that they don't *want* to go to bars any longer. Grindr might replace some aspects of social interaction and change others, but ICTs can never substitute all of the social functions of gay bars (see also Woo, 2013, p. 24).

Yet this is not the whole story. I arrived in London more or less on the day that the House of Commons discussed the bill on 'same-sex marriages' (which was later approved). The bill could be seen as, metaphorically, a culmination point of the struggle for gay rights, as well as the 'assimilation' of queer culture into heteronormative societal norms (see for instance Duggan, 2008). This entails that so-called 'normal culture' got queered as much as queer culture got 'normalised', resulting in an embrace of white middle class values by gays, and vice versa.

This process of normalisation has also affected the 'gay villages', which, from the 1970s onwards, sprung up in many western cities in order to provide 'safe spaces' and 'liberated zones' exclusively for queers (see for instance Levine's (1979) seminal work on gay 'ghettos'). The visibility of these spaces, and the high concentration of gay bars within these spaces, greatly contributed to the emancipation of queer culture (yet often, as Lauria and Knopp's (1985) pioneering study showed, a particular queer culture suited for gentrification). Since the 1990s, however, at least two developments have undermined the exclusivity of these queer spaces.

First, these spaces have often become popular residential areas for the middle-classes, as well as popular destinations for going out. As a result, these spaces have been as much incorporated within non-queer orientated city marketing schemes as they have become

normalised (see, Rushbrook, 2002). “Things are changing”, one (4) man I interviewed explained, and Grindr is riding the wave of the change.

> You can see that In London. […] Soho used to be the gay neighbourhood. Some of its the gay gay gay bars – gays as the day is long – have closed, because people are not interested in that identity anymore. And the bars that are successful are much more based in pub culture, so they are in effect much more – quote unquote – normal and conventional… much more mainstream public houses. And those are the places people are driven to because they don’t identify with the traditional identity.

Second, the increased tolerance of queer behaviour in public spaces means that gays are no longer confined within the bounds of gay spaces. As a result gays can much more easily visit mainstream bars (see for instance Rushbrook, 2002). “I met most of the men I ended up dating just by hanging around in London”, another user (5) reflected.

> Usually more sort of central London, when I am out with friends or when I am shopping, eating out, meeting for coffee, whatever…

> Not necessarily in gay areas. London has a few gay areas, but these days it kind of crossed over, even gay bars now have a large percentage of straight people in there, because it is much more accepted now... It’s kind of the same for the areas. It’s easier for people to be gay in public. You don’t just stick to one area. For me, in my head, Soho is not really a gay area anymore. Most of the gay bars that closed there have moved outside. Shoreditch has a few… Camden has a few… So it would be more central London rather than a particular gay area.

For Rushbrook (2002), this “shift from a closed, introverted queer space to a more open appropriation of public space in which a blurring of boundaries is accompanied by a watering down of queerness” has threatened many a traditional gay bar (p. 198). It can be argued, therefore, that Grindr, as an app that synchronises desire, simply exploits this trend towards a less centralised and less visible queer geography. “What is a good place [to meet men], is Nando’s…”, one man (5) for instance said.

> It's a restaurant chain that is very popular with gay men. Don't ask me why. It can be a cheap chicken thing, I don't know. But the amount of people I met there… When you turn Grindr on it's almost like there is this concentration of gay people in every Nando's in the area … It's almost like this is the *set up place* to go. A few years ago you wouldn't have though you would go there to turn it on and meet gay men.

5.5.3 London Cruising

In his insightful study *Backward Glances: Cruising the Queer Streets of New York and London* (2003), Mark Turner crucially writes*:*

> Cruising is the moment of visual exchange that occurs on the streets and in other places in the city, which constitutes an act of mutual recognition amid the otherwise alienating effects of the anonymous crowd. It is a practice that exploits the fluidity and multiplicity of the modern city to its advantage. But cruising is not transhistorical – like everything else it is circumscribed by any number of social determinants and cultural and social specificities. And cruising is always site-specific (p. 9).

Grindr and other geosocial networks, then, change the dynamics of cruising in at least two ways. First, the application extends the scope of its users. The visual exchange does not occur on the streets, the very moment the cruisers pass each other by, exchanging glances. Instead, the cruiser's eyes are drawn to one specific avatar – the profile is full of promise, the green light blinks, the chat balloon bursts to life etc. – among the cascade of avatars, representing the numerous gay men in the vicinity. The visual exchange, here, consists of chat messages, as well as, in some cases, more explicit images. Second, cruising is not any longer site-specific. It is still site-specific, of course, in the sense that the practice may be influenced by one's environment. Yet it is not any longer site-specific in the sense that Grindr depends on a series of cruising areas each with its own site-specific rules, rituals and regulations. Grindr, as we will shortly see, bypasses the need for cruising areas.

One thing, however, has not changed. Cruising remains "the voyage of desire", as Roland Barthes (1975, p. 231) famously put it. One of the recurring tropes in the interviews is that Grindr users cruise the streets of London not when they are at home but when they are out and about in the city, exploiting its contingencies. "There is actually very little variety", one man (3) explained,

> unless you are moving. The thing is… most of us go to the same places most of the time. So when it is most interesting… is when you are moving across spaces and you have some time on your hands. Then you see a different set of characters. I mostly use it in public space or on buses. I take a lot of buses and there is something interesting about… […] It becomes interesting when you are somewhere else. When you've reconfigured your map and it looks different and people are interested in you because you are different. […] Because it is mostly a thing I use in transit, it does have a constant sense of possibility and that's something I like. It does offer the possibility for random chance encounters.

Others shared a similar preference for using it while in transit. Some, however, also cruise when they are at work. One user (3) said:

> You can be walking down the street and people text you and they are around the corner. […] Or I am sitting in my office and I have two hours before my next meeting and someone texts me and says: *shall we go to this hotel?*

And another user (2) said:

> I use it when I travel or when I am not home. So when I am having a lunch break and I am a bit bored, I would switch on Grindr […] and I would quite happily just run off for an hour and meet someone if the flat was around the corner.

This entails that users are able to cruise whenever and wherever they are, depending on their mood and the possibilities that present themselves through Grindr. This puts users in various "interesting positions", as one man (3) put it.

> [Grindr] lets you make decisions like, ok, I could do this but I wonder whether I am then going to be late for this meeting. It does put you in these interesting positions – where you are excited by having to make the choice. Like… I got half an hour*, oh my god*… could I get off this bus, go there, have a blow job, get back on it and get to work even when I might be five minutes late. You get these kind of interesting decisions.

By using Grindr, in other words, users are seduced to divert from the daily routes they routinely take, as well as tempted to take advantage of the contingencies of public space. This does not mean that users shed their routines in some kind of elaborate drift through the city, on the hunt for chance encounters. It does mean, however, that they cultivate the tension between routine and chance, convenience and opportunity. Meeting someone, one user (3) explained,

> does happen when the stars line up, but less frequently than you would think… […] It does have to fit into the patterns of people's life.

This brings us to an interesting point. It is well documented that mobile phone users often ask after the whereabouts of the person they are calling or texting – often one of the first questions is *where are you?* (see Ling, 2004, p. 73). With Grindr – and this may well apply to other geosocial networks – one of the first questions seems to be about directionality. "There is the possibility of going into different directions", one man (3) for instance said.

> When you are moving in a direction and your possibility for meeting is moving in the opposite direction there is a real sense of… hmmm… I noticed that is a question: Which direction are you heading? […] When there is a possibility that the axes will cross, then it becomes a more real possibility. Often it is one of the first things I ask. Particularly when I am heading somewhere, because I realise that I am the one on the move and the other is static and I am getting further and further away. But when you are also moving then… let's just call it a day. This is hopeless. We missed our moment. This is the cruising gods telling us to get on with life.

The main difference between traditional forms of cruising and the forms enabled by Grindr are, interestingly, related to location. Traditionally, one (3) man explains,

> you would allow a period of time and go somewhere specific and *that* is what you were doing – for two hours or a night or whatever – and it's a different temporal experience and it's a weird kind of in-between space. Cruising is a kind of activity… well, you *can* pick somebody up in the streets… but you create a time and space for it.

> This is different because you are always doing something else. You don't go walking down London and all you do is Grindr-ing. You are always doing something else. In theory, it turns the whole of the city into a cruising area.

Whereas traditional cruisers either relied on the contingencies of the street or planned their escapade more or less in advance to maximise their chances, Grindr users occupy a strange new place within the cruising spectrum. As the application allows them to perceive a multitude of chances without the need to go to a cruising area, the sites where cruisers may end up having sex might be more evenly distributed across the city, as well as more private – that is: whatever houses and hotels, toilets and back rooms are temporarily available and logistically convenient.

Grindr, as a tool to synchronise desire, bypasses, then again, the need for a central hub in the urban network of cruisers, a more or less public space that is known among cruisers. According to Mark Turner, the author of *Backward Glances* (2004), this has ramifications for London's queer geography. "If it hasn't depopulated bars", he told me over a coffee,

> I bet it certainly has depopulated cruising areas. There are many fewer cruising areas in central London than there were ten years ago. There are still peripheral spaces but very, very few big spaces for a city of fifteen million people. Your sexual geography used to be: I go to Russell Square on a Tuesday night. Now there are mostly private spaces – a toilet in a department store on a college campus or something. But they are not public spaces. It is what it is, though. Whatever. What is lost is the feeling that the city was yours, that a public space was yours and you had your own little corner of the city. On the other hand, what is gained is that the street is yours and that it could become – anywhere, anytime – a place of potential encounter.

Tools like Grindr, moreover, emerged in a period when cruising in public spaces was becoming increasingly criminalised and policed. This has, of course, existed throughout modern times (Cook, 2003). Yet the policing of cruising grounds has arguably increased since the 1950s and most definitely gathered pace after the HIV scare of the 1980s and - perhaps most significantly – cannot be seen separately from the incorporation of gentrified gay villages and assimilated gay culture into urban redevelopment schemes (see for instance Serlin, 1996, Dangerous Bedfellows, 1996 and Houlbrook, 2005), culminating in "the re-drawings of the boundary of unwantedness" (Casey, 2007, p. 125). Casey (2007) for instance

argued in relation to many major cities in most Western countries that

> Aspects of 'bad' gay culture are increasingly threatened as the assimilation of more mainstream aspects of gay culture gathers apace. Cruising grounds that for decades have been used in search of anonymous sexual pleasure are increasingly policed as 'unhealthy sites' of unsafe and deviant sex, in turn, designing the bad gay out the cityscape (pp.128–129).

While the emptying out of traditional gay bars and public cruising areas may not entirely be attributed to Grindr, as these developments were well on their way before the introduction of the application, Grindr does ride on – and in some cases might even advance – the increasing invisibility of queer geographies. Outsourcing flirting and cruising to technological extensions such as Grindr results, then, in a rather paradoxical situation. Whereas Grindr affords the visibility of the gay community *for itself*, this redistribution of the sensible also entails that the gay community might become less visible *for others*. Grindr, then, seems to be the perfect tool for the current so-called post-emancipatory state of affairs in London and elsewhere. The question remains, however, whose emancipation exactly? The normalisation and assimilation of queer geographies leave no space for those aspects of queer culture which are less respectable in heteronormative eyes than others. "Grindr", as Mark Turner insightfully remarks,

> is in a way a great technology for assimilationist gay culture, which doesn't want to have its own space. So for people who don't want to be seen as gay even when they are gay, because they consider themselves to be equal. It's about blending or fitting into the city rather than finding a separate space, which does seem to me a new kind of gay politics.

Seen from the perspective of queer space, the politics of aesthetics of hybrid space, in sum, seems to enable queering public space within the (rather puritan) constraints of, say, the app-store and within the perceptual limits of the application. Paradoxically, therefore, Grindr may very well lead to a de-queering of public space.

5.6 Openings and Conclusions

In this chapter I argued that Grindr affords at least three types of usage: befriending, flirting and cruising. For all of these different types of use patterns, users exploit, in different ways, the chance character of urban life. Grindr's interface enables a heightened awareness of all kinds of different users, with all kinds of different interests, in one's vicinity and, hence, displays the variety and contingency of urban life without too many filters (sexuality, age, and distance, basically). Ultimately, then, Grindr enables what I have called the synchronisation of desire. It determines what users can want in a given situation – friendship, love or sex – but, as an assemblage, it also enables a coupling between separate desiring-machines into a larger one (consisting of two user-interface assemblages). For a meeting to occur, users with a shared desire need to be in each other's vicinity around the same time and/or need to use the application to iteratively synchronise their interactions so that they can operate in unison in time and space. This goes, at first sight, for the flirters and the cruisers. But, following Deleuze and Guattari, also for the coupling of friends. Mobile and locative interfaces, seen from this perspective, can therefore be considered as desiring-machines that enable couplings between randomly encountered strangers.

Grindr also enables a constant foregrounding of a queer space in, and through, hybrid space. Users are not constantly browsing the environment or chatting to strangers but they are opening the application regularly and consistently throughout the day. The users of Grindr, then, are constantly foregrounding (and backgrounding) a queer space that would otherwise remain largely invisible – whenever and wherever, all day every day. This leads to a second point that can be generalised. Mobile and locative interfaces enable users to *foreground* specific elements of the urban environment – both of the physical and the social environment – by tuning in to one of their applications that are running in the background.

This has many benefits. Yet it also has paradoxical results. Whereas Grindr affords the visibility of the gay community *for itself*, this redistribution of the sensible also entails that the gay community might become less visible *for others*. What's more, Grindr, and its popularity, surfs on a wave of de-queering public spaces, as more and highly centralised and highly visible meeting spaces such as gay bars and cruising areas are closing. This leads to a third point that can be generalised. Mobile and locative interfaces result in a new politics of the aesthetics of public space in which minorities may very well find their own niches much more easily, yet these niches are policed by the norms of large corporations and remain invisible to the public at large or, rather, the public at large fractures into manifold publics that are only visible to, and interact among, themselves.

CHAPTER 6
TEENAGE TWEET TRIBES
Ambient Contact in Intimate Spheres

> It is in a country unfamiliar emotionally and topographically that one needs poems and road maps.
>
> – C. Geertz, 1973, p. 218

> Sharing everything has become the new normal. It's just really nice to hear all those stories about what the other girls have done, are doing.
>
> – Anonymous respondent

6.0 Introduction

Imagine a group of teenagers, having a conversation, phones either glued to their hands or scattered across the table, eyes moving back and forth from their screens to their friends, thumbs uploading messages to timelines while mouths add their fair share to a conversation that flows from cheating boyfriends to rising pop stars. It's a familiar scene. Everyone must have observed it several times in his or her lifetime. Yet what to make of it?

The social scientist Sherry Turkle (2011) would undoubtedly describe our little group of teenagers as being "*alone together*", as the title of one of her books has it. She argues that the ubiquity of smartphones hampers the ability of today's young people to connect and communicate with each other in – what she considers to be – a meaningful way. In her pessimistic take on our 'always on' culture (see also chapters 1 and 2), young people screen themselves from others because they are both continuously anxious about the conundrums of their *offline* lives and perpetually distracted by the demands of their *online* lives (she indeed mostly maintains the contradiction between physical environments and virtual environments that should be surpassed in any analysis of hybrid space). As a result, teenagers consistently peek at their personal screens rather than look into each other's eyes – to the detriment, of course, of social interaction and physical intimacy *In* (so-called) *Real Life.* She (2011) states:

> …technology offers us substitutes for connecting with each other face-to-face. We are offered […] a whole world of machine-mediated relationships on networked devices. As we instant-message, e-mail, text, and Twitter, technology redraws the boundaries between intimacy and solitude. […] Teenagers avoid making telephone calls, fearful that they "reveal too much." They would rather text than talk. […] Tethered to technology, we are shaken when that world "unplugged" does not signify, does not satisfy. […] [W]e feel, at one moment, in possession of a full social life and, in the next, curiously isolated, in tenuous complicity with strangers. We build a following on Facebook or MySpace and wonder to what degree our followers are friends. […] In all of this, there is a nagging question: Does virtual intimacy degrade our experience of the other kind and, indeed, of all encounters, of any kind? (pp. 11–12)

Turkle's analysis converges around two lines of argument, which are both representative of a growing group of critics voicing a cultural anxiety – moral panic, even – concerning the use of smartphones. On the one hand, our smartphones are said to redirect our attention from those in our immediate environment to our online sites, networks and communities. On the other hand, all those blogs, tweets, posts and messages are thought to provide the illusion of meaningful communication while, in fact, they perpetuate and deepen our social malaise. Indeed, many observers have argued that the omnipresence of smartphones, in about every other situation of our everyday lives, has far-reaching, negative consequences for our social lives – and this supposedly pertains to the young especially.

My own case study into the use of smartphones by teenagers does not support this pessimistic take on its effects on intimacy, sociability and friendship. To be sure, teenagers *do* have a tendency to constantly use their phones to browse, send or post anything from texts and tweets to status updates and pictures (a lot of pictures, as we will see). But if my case study taught me anything, it is that today's young people are very well versed in navigating the 'attention economy' (see, for instance, Keen, 2017) of hybrid space and that they are quite able to use the affordances of the smartphone to complement physical intimacy (rather than substitute for intimacy, as Turkle claims).

Over the span of four years, I followed and regularly interviewed members of a single group of twelve teenage girls. The group once consisted of thirteen girls. Yet the girls cut their ties with one of its members for reasons that only teenagers may understand. The twelve girls who remained in the group were very close friends – and they still are friends today. The interviews were open-ended and semi-structured conservations that took place in public

spaces of their choosing and through Skype sessions (see 0.4 for an outline of the Interpretative Phenomenlogical Analysis (IPA) methodology that underpins the sampling strategy and the interview design). As digital natives, the girls were particularly well placed to serve as respondents – or, rather, informants – for my study into the nature of hybrid space. They were born at the brink of the 'dotcom' boom, spent their childhood with personal computers and game consoles, and entered their teenage years during the advent of Web 2.0 and smartphones. They hardly remembered any other reality than the augmented reality of hybrid space.

Throughout this chapter, the group as a whole is addressed as 'the girls' to indicate that this or that particular use-practice is shared by most, if not all, of its members (they themselves once set up a twitter account named *@demeiden* – Dutch for *@thegirls*). Generally speaking, I report relatively few idiosyncratic uses that drastically diverge from the most common smartphone uses within and across their group of friends.

This chapter analyses the various ways in which these teenage girls use, and have used, their smartphones in their daily lives. I pay particular attention to various social media applications used to share their locations, activities and experiences with, and across, their various social circles – from their close friends to their vague acquaintances. This means that I do not focus, as I have done in previous chapters, on a single location-based mobile application (though the girls regularly 'check-in' through Facebook *Places* or geotag their Instagram images). Rather, I try to map and analyse with whom, and how, these girls stay in touch while they move through hybrid space.

In the first section, 'Teenage Tweet Tribes: From Perpetual Contact to Ambient Contact', I analyse how they used Twitter, an application they used on their smartphones, to constantly share their whereabouts, comings and goings, and activities. I argue that this behaviour resembles the territorial behaviour of tweeting birds and corresponds to a tribal mode of organisation, mobility and use of social space.

In the second section, 'Spheres of Intimacy', I analyse their use of WhatsApp to argue that the hundreds of messages they exchange on a daily basis amount to the constant maintenance of a ritual interaction chain that they mesh within, and across, each social situation in their daily lives. This provides the sense of a protective intimate sphere.

In section 6.3, 'The Presentation of the Self(ie)', I analyse the various ways in which they address different publics on different platforms – Facebook, Instagram, Snapchat – by means of photos and, as is often the case, (group) selfies. The girls have clear strategies to manage the boundaries between public, semi-public and private spheres in which they share images.

Interestingly, photos are invariably geotagged (Instagram) or added to a check-in (Facebook) and selfies are used to express affective registers in a manner similar to emoticons.

In section 6.4, 'Attention and Distraction in Hybrid Space', I revisit this chapter's opening scene in order to better understand the various ways in which the girls 'manage attention' (see Goldhaber, 2006; Lanham, 2006; de Souza e Silva and Frith, 2012, p. 26) when they find themselves in a social setting that requires face-to-face conversations – especially when they are among friends. For me, and according to themselves, they are not in some perpetual state of distracted inattentiveness to those who are co-present in their immediate surroundings. They do not form, as Gergen (2002) would argue, an "absent presence"– i.e. being "physically absorbed by a technologically mediated world elsewhere" (p. 227). Quite the contrary.

6.1 Teenage Tweet Tribes: From Perpetual Contact to Ambient Contact

Early on in my research, when I just started to follow the girls' use of smartphones, they predominantly used the micro-blogging service Twitter. This was in 2010. They must have been around 16 years old – and they tweeted all day to communicate with their peers. "Everyone shared everything", one of the girls (1) said during an interview in which she politely tried to minimise digital distractions by putting her phone screen-down on the table, in sleep mode.

> They "put" things about their boyfriend on Twitter, or love songs, things like that. Actually everything. When you've met your girl friends or when you were going to bed. Actually, it started when you got out of bed. It was like a morning newspaper.

She was far from the only girl reporting a constant stream of status updates on Twitter's timeline. In fact, it was a common practice to constantly share one's whereabouts and activities, alongside other things close to the world of a teenager, such as music lyrics, wisecracks or popular sayings. "Everything we did we 'put' on twitter", one of the girls (4) explained.

> In the morning you woke up, and said: Good morning everybody! Then you dressed up to go to school, and 'threw' that on Twitter. Then you cycled to school, and shared this. Or when you arrived at school, of course. Or things like: Finally, a break. And so it continued: When school was out. When you went to one of the girls, you wrote: I

> am cycling to the girls. When you arrived, you said: Just arrived at the girls. When you went home. And at night, you said: Good night everybody! It continued throughout the day.

We are reminded, here, of the oft-cited notion, coined in the context of mobile phone usage, of 'perpetual contact' (Katz and Aarhus, 2002). Around the turn of the millennium, many authors observed that mobile phones enabled teenagers to continuously stay in touch with their peers – if not actually than at least potentially. To sustain this sense of togetherness, teenagers exchanged numerous 'text messages' throughout the day. So many, in fact, that Reid and Reid (2004) stated that in the early 2000s mobile-enabled 'texting' began to resemble desktop-bound forms of communication:

> On the one hand, the mobile phone allows near-conversational level of synchronous texting, such that an exchange can resemble online chat in turn taking and discourse structure. On the other, the texting interface presents the users with an asynchronous medium similar to email, allowing time for composition and reflection (p. 2).

These forms of texting may seem to be very similar to the ways in which the girls used Twitter. They, too, sent and received many, many messages so as to stay in touch with their friends throughout the day. Moreover, the number of characters that can be used for a text and a tweet is roughly the same (160 vs. 140). There are, however, at least two reasons why their use of internet-enabled smartphones to communicate with their followers afforded decidedly different routines and rituals, as well as another user experience.

First, with their adoption of Twitter, the girls simply moved beyond traditional text messaging (to never look back). Back in the day, texting services required a subscription or, more often, a prepaid card from a telecom company in exchange for a certain amount of credit. Every text message cost a small sum making it a relatively scarce good in economic terms, especially for teenagers (albeit one that still was cheaper than a voice message).[9] Ling and Yttri (2002) point out that

[9] Ling (2008) reported that "[In 2004] an average mobile phone user sent more than two SMS messages per day and some social groups like teen girls sent up to ten per day."

> the marginal economic situation of teens means that they are forced to be frugal in their telephone use [and] that they are astutely aware of costs, as well as the various alternatives (p.12).

This has had two consequences. The teens' cost awareness should be seen as one of the explanations of the popularity of texting (in comparison to calling), yet their frugality seriously limited the number of text messages that could be exchanged. Nowadays, in what could be described as the post-text moment, most teenagers use smartphones to hook up to free (password protected) Wi-Fi connections or, when this is not possible, resort to relatively cheap 3G mobile subscriptions. This shift from mobile phones to mobile internet has, in effect, turned the 'text' message from a scarce good into an abundant resource. One girl (4) reported this shift thus:

> In the past, you just had SMS [*traditional texting – RA*], but that was way too expensive… That's why you started using Twitter and, later, WhatsApp. It's also way easier. Because you sit in those 'groups' – so when you have something to say, like, "Girls, you can 'hang' at my place because I am home alone", you don't have to send each and everyone a separate message but you 'throw' it in the group.

In the resulting situation the girls are able to send and receive a practically unlimited amount of messages through social media applications such as Twitter (and, as we will shortly see, WhatsApp). In fact, they sent and received so many messages that the notion of perpetual contact seems to be too modest a conceptualisation. It is for this reason, and another reason that becomes clear below, that I feel tempted to substitute it for Ito and Okabe's (2005) notion of "ambient" contact (pp. 257–273).

Second, we can also pinpoint a qualitative change in the nature of the messages that were sent and received. Sending tweets rather than traditional texts entails a shift from one-to-one communication to one-to-many communication, something also highlighted by the above citation. Rather than sending text messages to a single friend (see Ling and Yttri, 2002), Twitter enabled the girls to chronicle the minutiae of their daily lives and share it with a group. In so doing, they contributed to what could be described as a collective stream of consciousness; one that consists of the aggregated number of updates from each of Twitter's

Ms Dalloway or Mr Bloom.[10] "It was really handy to follow what everybody was doing", one of the girls (4) for instance reported,

> You didn't need to talk or text – yes, I believe it was still 'text' at the time – to find out what everyone was doing, because when you checked your Twitter you *knew* anyway what everyone was doing, and where everybody was.

The internet critic Clive Thompson (2008) described the phenomenological effect of this collective stream of consciousness as a form of "ambient awareness" (which is the other reason why I prefer Ito's notion of ambient contact). "This is the paradox of ambient awareness", he wrote in an insightful essay in the *New York Times*.

> Each little update – each individual bit of social information – is insignificant on its own, even supremely mundane. But taken together, over time, the little snippets coalesce into a surprisingly sophisticated portrait of your friends' and family members' lives, like thousands of dots making a pointillist painting. This was never before possible, because in the real world, no friend would *bother* to call you up and detail (say) the sandwiches she was eating.

In the context of the mobile internet, ambient awareness altered and enhanced the girls' perceptions of the urban environment; it enabled something akin to "Extra-Sensory Perception" (Thompson, 2008), as it made visible an otherwise invisible layer containing the doings and goings, thoughts and feelings of their peers.

Later on we turn to some of the effects of ambient awareness for the teenager's social and spatial practices. For now, it suffices to reiterate that we have seen that the shift from *texting* to *updating* entails a shift from perpetual contact through one-to-one exchanges of scarce goods to ambient contact by means of a one-to-many sharing of abundant resources. This, I argued, increased the number (as unthinkable as it may have seemed a little over a decade ago) and changed the nature of the messages that were exchanged by the girls throughout the day, enabling ambient awareness.

[10] I refer, here, to two different protagonists from two separate so-called stream-of-consciousness novels. The first is the protagonist in Virginia Woolf's (1925) novel *Mrs. Dalloway*; the latter is the protagonist in James Joyce's (1922) novel *Ulysses.* Both novels are considered to be modernist classics and experimented with representing the manner in which individuals process, and mentally represent, the time and space of everyday life.

There are several applications available that aggregate and organise tweets forming a collective stream of consciousness by means of location. Apps such as Tweetsaroundyou form interfaces that display the most recent twitter updates that have been sent from places near you, using GPS-enabled software to filter hybrid space. To my knowledge, these kinds of twitter mash-ups have never been widely used (in contrast to other location-based apps). The girls, for one, have never even heard of these applications. For them, Twitter's relevance lies precisely in its capacity to enable ambient awareness of the everyday lives of their various social circles (rather than the information generated by nearby strangers). On Twitter, therefore, the girls mostly 'followed' people they already knew and regularly met; and they rarely followed more than 150–200 people (which roughly corresponds to the reported number of people in the contact list of teenagers who used a mobile phone). "I didn't follow everyone's tweets", one of the girls (3B) for instance said,

> but only the tweets from those I was interested in. The girls, for example. Or people from school. People you already knew. Not from people you didn't know at all. Celebrities? Not really.

The girls mostly used Twitter, in other words, to maintain "strong ties" and "weak ties" (see Granovetter, 1973) with those who were close to them – in both the social and geographical sense of the word. In fact, they mostly followed people who were living in the same suburban region of a larger urban agglomerate, with a special interest in friends, classmates and colleagues. Interestingly, the girls set up a common Twitter account, aptly titled @demeiden (@thegirls), to distinguish between their 'strong' core group and everyone else, as referred to in one of the above citations ("you sit in those groups"). As they all had access to *and* followed this account, they cunningly used @demeiden to send messages just intended for their close friends (though visible to all, of course). This entailed that they received updates of @demeiden on the timeline of their personal account or could use the common account to access the collective stream of consciousness of their little group. The girls simply had a privileged position. For every single one them, it was especially important to be aware of the social and spatial practices of the others.

I feel tempted to describe the girls' tight-knit group as a tribal band (recognised, as it were, in itself and for themselves as @demeiden); a relatively small band of mobile nomads held together by a certain set of shared interests and a specific mode of communication. First, groups using Information and Communication Technologies to sustain social bonds have

often been described as 'digital tribes' (see, among others, Godin, 2008) – and particularly so in debates on mobile devices (Lobet-Maris, 2002), teenagers (Rheingold, 2002, p. 6) and Twitter (see, for instance, Rodrigues, 2013 and Bryden et al., 2013). That is, to indicate that such social groups are structured around common interests and coordinate their actions by means of computer-mediated communication.

Second, the girls are constantly on the move – from often multiple homes or sport clubs to school or work and from shopping malls or leisure centres to meetings with friends or dates with boyfriends. This nomadic lifestyle has recently been illustrated by an interesting ethnographic case study into the handbags of teenagers living in the same geographical area as the girls (Mulder et al., 2013). It showed that teenagers carry around bags with lots of stuff that equip them for a life of constant mobility, such as different sets of clothing, phone chargers and even toothbrushes.

Third, the girls, like all teenagers, do not have any claim of ownership on any of the sites they are visiting. They can use these spaces by slightly appropriating their functions or temporarily bending their rules, yet they can't repurpose spaces or impose their own regulations. This entails that they are constantly moving in and out of spaces that are monitored by adults or controlled by parents. Herb Childress (2004) for instance states that "teenagers have limited ability to manipulate private property. […] This is true in their communities, it's true in their schools, and it's true in their homes" (p. 196). It is for this reason, he argues, that the spatial logic of teenagers is decidedly different from the spatial logic of adults. Whereas the former represents "a hunter-gatherer social organization" in which land can be temporarily used for its spoils yet never claimed, the latter stands for the "sedentary model" in which land is owned and cultivated by its stationary proprietor (Childress, 2004, pp. 195–196).[11]

Interestingly, their *use* of Twitter was attuned to, and aligned with, the demands of these tribal modes of organisation, mobility and 'land' use. Let me briefly explain. I previously argued that whilst on the move the girls' ambient awareness enabled them to keep in touch with the other members of their band and stay informed about their doings and goings. This directly affected their sense of location. One girl (4) for instance said:

> It was really convenient to see where everybody was – like: "Ah, the girls are there" or "Hey, she is doing this or that." So you didn't need to ask. You saw it on Twitter.

[11] See also Vermeulen's (2014) interesting analysis, similarly based on Children's article, on the spatiality of teenagers in so-called suburb films.

And another girl (3B) put it thus:

> I really liked it to be able to see what other people were doing. […] You always *knew* where everyone was. You didn't even need to ask. Everything was on Twitter.

It appears that the girls' use of mobile social media (rather than desktop-bound services), within the context of a nomadic lifestyle, has been geared towards the constant sharing of their locations. As a result, every single girl had some kind of awareness of what all the other girls were doing – and, crucially, where they could be located. Their use of the word 'knew' is especially revealing (we've already stumbled upon this expression in a previous quote and we will encounter it again) as it conveys precisely this heightened sense of location that one would expect in this situation.

The girls' mode of communication, and the heightened sense of location generated by it, closely resembles the 'territorial behaviour' of tribal bands, as described by the anthropologist Tim Ingold (1987) in his insightful essay *Territoriality and Tenure: The Appropriation of Space in Hunter-Gatherer Societies* (pp. 130–164; see also Childress, 2004). To be sure, the notion of territory, here, has ecological rather than behavioural connotations. This entails that territory is conceived as a region in which individuals or groups live, a milieu; not as an area that is perceived and defended as one's *own* (idem, 1987, p. 132). Ingold – in a rather fortunate coincidence – begins his argument on territorial behaviour with the ornithological example of twittering birds, which use their tweets to signal their respective territorial positions and to alert their feathered friends to dangerous situations or favourable opportunities (i.e. food and shelter, pairing and breeding). For him (1987), this draw attention to the "communicative aspect of territorial behavior" (p.131) – and he writes:

> Territorial behavior *is* basically a mode of communication, serving to convey information about the location of individuals dispersed in space (p. 133).

The territorial behaviour of nomads, then, has always been a means to advertise their location, and information about that location, to other members of their tribe while roaming an "extensive but common" territory for spoils, a situation that precludes face-to-face contact, yet requires coordination (so as to be aware of the need to ignore, go to or avoid the other's territorial position) (Ingold, 1987, p. 143). The most well known example of such forms of

territorial behaviour would probably be the use of smoke signals. Perhaps the similarities with the girls' use of Twitter are so obvious that they do not need to be pointed out. Still, for the sake of clarity, it should be noted that the girls, too, moved across a very large region, formed by an urban agglomerate that should be considered as *their* territory, while they constantly signalled their territorial positions. They, too, did so to indicate the position of people and resources that were relevant for *their* everyday lives. And they, too, did so to coordinate interactions among *their* tribe when face-to-face meetings were impossible due to a plethora of activities scattered across their territory.

Ingold (1987) defines territory as a "region within which an individual or a group habitually moves, possibly anchored on one or more central sites, but without rigidly defined boundaries" (p. 132). Interestingly, he contrasts the ways in which nomadic tribes move within and across their territory to the more sedentary spatial practices of settlers. The former roam their "home range" (idem); the latter stay put on their home ranch. He (1987) conceptualises this difference by discussing several dimensions of tenure, which is "a mode of appropriation by which persons exert claims over resources dispersed in space" (p. 133). The land tenure of farmers is characterised by exclusive claims on certain plots that are cultivated to provide shelter and resources, which is a two dimensional mode of appropriation. The territorial tenure of hunter-gatherers, by contrast, is characterised by non-exclusive claims on certain places in, and paths through, their territory. Their mode of appropriation is, in other words, zero- and one-dimensional in nature as they travel between sites and along trajectories. I am aware that we've already come across a similar distinction (in a sense we have come full circle). Yet it's worth rephrasing it in these terms in order to emphasise that the tribal mode of spatial appropriation transforms a territory into nodes, clusters and links (Ingold, 1987, p. 133). For the girls, it could therefore be argued, urban space has the shape of a home range with a network-like structure, a "network topology", to borrow Yoachim Benckler's (2000, p. 11) phrase.

By setting up the distinction between territorial behaviour "manifested in co-operative behaviour" and the territorial tenure "informing appropriative action" (p. 136), Ingold intimates what could be described as a nomadic mode of spatial production. In a slightly offhand remark, which nonetheless has quite some significance in the context of our Lefebvrean inquiry into hybrid space, he transcodes the anthropological notions under discussion into a Marxist discourse.

Translating the opposition into a Marxian idiom, we would say that where territoriality

> belongs to the forces of production, laying down a template for the practical conduct of activity, tenure belongs to the relations of production regulating access to, and control over resources (p. 136).

In doing so, he reminds us that every mode of production, including the nomadic, secretes its own social space. To be sure, and in line with what I argued in chapter 1 and chapter 2 concerning the social production of hybrid space, this nomadic mode of spatial production does not operate in a vacuum. It is wholly intertwined with the urban mode of production (which, I must restate, is a descriptive rather than a normative statement). Today's social spaces – and the subjects determining, and being determined by, these spaces – should therefore be conceived as assemblages that stimulate this type of territorial behaviour. Our case study into the girls' teenage tweet tribe illustrates, then, the wider cultural development, related to today's urban conditions, in which the co-production of social space, and its highly mobile form of urbanism (*as a way of life*, as Wirth (1996 [1939]) would have it) in the urban operating system, has indeed become the new normal.

In practice, to reiterate our working hypothesis, these hybrid forms of urbanism affect, and cannot but affect, the perceptual domain of our spatial practices, the cognitive domain of our spatial representations, and the affective domain of our lived experiences. So far we've seen that the girls' territorial behaviour resulted in an ambient awareness that generated knowledge about the territorial positions of the other members of their teenage tweet tribe. Recall that they simply *knew* each other's whereabouts within and across their home range. It could be argued, then, that this form of tacit knowledge reconfigured the girls' 'mental maps' (Lynch, 1960, pp. 1–13) of the city and the representation of social space. For him, mental maps are spatial representations that urbanites create so as to be able to orient themselves in the city ('where am I?') and navigate their way through urban space ('getting from here to there'). These maps are configured out of perceptual data and hence by definition subjective, partial and fragmentary. Based on the sketches of city outlines and the drawings of daily itineraries of numerous respondents, he reported that such mental maps predominantly consist of physical objects in the city, such as paths, edges, districts, nodes and landmarks (see Introduction). Taking the example of the girls' social media-generated ambient awareness, but also Grindr users' emphasis on directionality rather than location, it could however be argued that today's mental maps do *not* merely consist of relative distances to immobile objects. Rather, they also seem to be structured around mobile subjects generating locational, directional and contextual data. Such mental maps are, then, much more dynamic than the

maps reported by Lynch, as they are tracing movements and are open to constant revision (Polak's locative media project *Amsterdam Real Time*, which we discussed in chapter 2, probably comes closest to the kind of map I have in mind).

One of the most interesting consequences of these forms of augmented sense perception and these altered forms of mental representation may very well be the ways in which they enable rather ad-hoc meet-ups in urban space. While journeying through hybrid space, the girls would often sense the nearby presence of one of their friends and/or map information about their locations and movements onto their own mental maps. As a result, they could assess whether it would be opportune to alter the course of their trajectories with the aim of crossing each other's paths. One girl (8) explained,

> Sometimes you see that someone is, say, sitting somewhere, a terrace. Then you walk by, to say hi or to join them. That's something that happens.

6.2 Spheres of Intimacy

When the girls switched from Twitter to WhatsApp (among other applications) they did not merely jump on the latest bandwagon in the endless parade of gadgets departing from Silicon Valley. They had, in fact, very good reasons to do so. WhatsApp enables users to send private messages, free of charge, to individuals or groups. It affords, in other words, very precise ways in which users can determine with whom they want to share their updates. Whereas the girls moved from texting to tweeting to be able to share an unlimited number of messages with an unlimited number of friends, they exchanged Twitter for WhatsApp to be able to do so in private and across well-defined social circles. Ever since, the application has become the girls' most frequently used communication tool – they use it more than any other app they have ever used, including Twitter. "Today I would *say* most things through WhatsApp", one girl (11) told me while trying to ignore the surprised look on my face.

> I use it every 15 minutes or so; all day long. […] When I don't check the app for an hour or two, I usually have two hundred or three hundred messages. I probably send hundreds of messages a day. About everything and nothing.

This girl's assessment of the number of messages she sends and receives may seem exaggerated. She can't be wide off the mark, however (incredible as this may seem). Without

exception, the girls reported that the rate at which they exchange messages has – once more – accelerated since they downloaded WhatsApp.

All those messages flowed in and out of several 'group apps', as they called the various groupings in which they organised their list of contacts. "I have quite a lot of groups", one girl (11) said.

> Two for the girls. One with my parents and siblings; one for the family. One with ex-colleaugues; one with current colleaugues. And so on.

Many of these groups are simply used to coordinate everyday life. Groups for school projects coordinate activities concerning study time and homework assignments; groups for parties coordinate activities related to tickets and transport; groups for family coordinate activities revolving around dinner time and household chores; and groups for friends coordinate the most appropriate time and place to 'hang'. The messages exchanged within these groups do not differ, in other words, from traditional text messages aimed at arranging meet-ups, assigning tasks and scheduling chores (see Ling and Yttri (2002) and Arminen (2009), as well as the discussion of micro-coordination in chapter 4). However, the group app of the girls, which they created to replace the by now abandoned twitter account '@demeiden', displayed a different dynamic (alongside modes of communication we already familiarised ourselves with, such as goal-orientated texting and territorial tweeting). One girl (2) reported:

> On Twitter you just posted very functional things. Where you were, what you were doing. […] In the group app you discuss almost everything, including things that are much more personal.

And another girl (7) said:

> In WhatsApp we discuss daily things or much more personal things (because Twitter is public). […] WhatsApp is not public. […] Nowadays each and everyone has a phone glued to her hand. So the whole day you are in contact with your friends and it is mostly about nothing, of course, but also about *something*

It appears that the girls share far more, and much more varied, details in the group app than they would do on Twitter. Yet I am not solely interested, here, in the rather simple fact that

the group app enabled them to speak their minds and bare their souls. What is so striking in this citation is that they discuss the difference between Twitter and WhatsApp in spatial terms that convey a shift in the register in which they experience hybrid space. Being '*on* Twitter' points towards a keen sense of the public aspects of hybrid space generated by a platform such as Twitter; being '*in* the app' points towards the sense of privacy granted by that little corner of hybrid space carved out by WhatsApp. The point I am trying to make is that they experience the exchanges within the group app as if they occurred within an interior of their own making.

In the below I argue that this point can be broken down into three sub-points that deserve further attention. First, I contend that the girls' exchanges should be conceived as forms of ritual interaction that maintain and strengthen the social bonds of and within their group. Second, I proffer that the girls' group app, which they aptly named '*beste vriendinnetjes*' (i.e. 'best friends'), could be seen as a totem that serves as a symbolic carrier and an affective reservoir of their friendship. Third, I suggest that these ritualistic and totemic aspects of their use of WhatsApp result in the creation of a sphere of intimacy. The first two arguments derive from Emile Durkheim's work on ritual (and a critical discussion of Richard Ling's research on rituals and totems in the context of mobile phone usage); the last argument builds on Peter Sloterdijk's notion of microspheres. This is not a random choice. Both authors have analysed, from different yet related perspectives, the various ways in which social practices assemble groups and maintain cohesion (while drawing heavily on the example of religion to illustrate their points). It is precisely these forms of social interaction that interest us, here.

So far we have established that WhatsApp is experienced as an interior that provides a sense of privacy, something that sets the application apart from Twitter and enables the girls to discuss 'everything', as they put it. Using the group app generates, in other words, the feeling that they are among themselves, as a group. One girl (4) aptly compared, and perhaps even equated, their interactions in WhatsApp to more familiar ways of socialising.

> Normally you would only chat when you come together to have a glass of wine or a cup of tea. Now, you chat all day long. The whole day you are having tea together. That's how it feels.

This is not to say that this sense of the collective derives from the content of the conversations. Rather, it follows from the very dynamic of exchanging messages among friends itself (4).

> It's mostly about unimportant stuff. I really don't care when someone posts on Facebook that she missed the bus. I have hundreds of friends on Facebook; I am really not interested in the things that 99% of them share. That's different with the girls. You know them really well, so it is more fun to read what everyone is doing.

These types of exchanges have been theorised by the mobile phone researcher Richard Ling as so many forms of "mediated ritual interaction" (2008, p. 6). He borrows this notion from Durkheim, and others in the Durkheimian tradition, to argue that group cohesion is not given but has to be created and maintained by means of rituals, something that nowadays increasingly takes place through mediated forms of ritual interaction, such as exchanging text messages (2008, pp. 1–22). As I mostly agree with Ling's take on mediated rituals (while disagreeing, as we will shortly see, with his position on totems), I will briefly summarise his argument, as well as its Durkheimian origins.

In *The Elementary Forms of Religious Life* (1995 [1912]), Durkheim famously argued that rituals tie communities and bind societies in a situation in which the social fabric unravels due to urbanisation, specialisation and individualisation. For him, rituals are, in other words, the privileged form among our social practices to forge and sustain social ties and collective solidarity among any group of people within an atomised society (Durkheim, 1995 [1912]). Without ritual interactions, to put it differently, our social interactions would amount to nothing but the contractual and calculated, self-contained and self-interested exchanges of public space and marketplace (see Henaff, 2005).

Now, Durkheim's principle example was primitive religion – and, by extension, religion as such – and the various rituals that together make up the religiosity that enables members of a tribe, clan, cult or congregation to mutually recognise each other's participation in a common situation and in a shared experience. Consider, for instance, ritualistic forms of religious life such as chanting, praying or dancing. The enactment of these rituals, and the common situation and shared experience emanating from the enactment (and *not* – it is crucial to add – vice versa), could be seen as 'boundary work' operating to distinguish between a

'sacred' and a 'profane' domain. He (1995 [1912]) illustrates this distinction in the following oft-cited remarks:

> Life in Australian societies alternates between two different phases. In one phase the population is scattered that attend to their occupations independently. […] In the other phase by contrast the population comes together, concentrating itself at specified places for a period that varies from several days to several months. This concentration takes place when a clan or a portion of the tribe is summoned to come together and […] conducts a religious ceremony […].
>
> These two phases stand in the sharpest possible contrast. […] The dispersed state in which the society finds itself makes life monotonous, slack and humdrum. […] [Yet] the very act of congregating is an exceptionally powerful stimulant. Once the individuals are gathered together a sort of electricity is generated from their closeness and quickly launches them to an extraordinary height of exaltation. Every emotion expressed resonates without interference in consciousnesses that are wide open to external impressions, each one echoing the others. […] Probably because a collective emotion cannot be expressed collectively without some order that permits harmony and unison of movement these gestures and cries tend to fall into rhythm and regularity, and from there into songs and dance (pp. 216–218).

Durkheim, here, hints at the distinctive temporal and spatial aspects of the sacred and the profane domains of society, echoing his more general observations about the function of ritual in modernising societies. Whereas he characterises the latter domain as a dispersed, and hence insulated and atomised, spatiality with a monotonous and repetitive temporality, he describes the former domain in terms of a co-present gathering in some kind of clearly demarcated space-time; a bounded situation in which the *idea of the group as a group* is both *celebrated* and *confirmed* in and through ritualised interactions. To be sure, Durkheim, as a sociologist, does not analyse the sacred for the sake of the sacred in order to set it ontologically apart from the profane (he would denounce that as mere philosophy). Rather he emphasises the social origins of religion as much as he underlines the capacity of religion to temporarily provide the *idea* of true community or momentarily stand in for the *idea* of society as such. In the last instance, therefore, the 'boundary work' of religious rituals serves to distinguish between those who partake in a group and those who do not have a place therein. Yet religion, it is

important to reiterate, is merely an example (albeit one that in the Durkheimian tradition has anthropological and historical primacy over other examples).

Durkheim's notion of ritual has been very influential indeed (Collins, 2005, pp. 101–135). Since the publication of *Elementary Forms,* many scholars have sought to either extend the scope of his inquiry or broaden his conception of ritual. Roughly, as Bellan (2005) insightfully argues,

> Subsequent work on ritual under his influence has not moved far beyond him by placing ritual at the core of any kind of social interaction whatsoever. While on the one hand this might be seen as a broadening of the idea to include "secular ritual," the same development might be seen as disclosing an element of the sacred, and thus of the of the religious, at the very basis of social action of any kind (p.185).

It falls outside the scope of my argument to review the literature on the *secularisation* of ritual on the one hand and what could be described as *banalisation* on the other. It suffices, here, to illustrate these related yet divergent branches by briefly dwelling upon some of the key thinkers in the Durkheimian tradition that have become the backbone of the debates in media studies.

The first, and the most obvious, starting point would be the research on the secularisation of ritual that delves into those rituals that are usually associated with the celebration and confirmation of some kind of larger, overarching entity that groups, or attempts to group, people together – the nation-state would be the obvious example, here. Moore and Myerhoff (1977) and, more recently, Anderson (1991) argued for instance that secular rituals such as a commemoration or an inauguration (the list of examples is virtually endless) share a family resemblance with religious rituals to the extent that both forms are strictly demarcated from the space and time of everyday life and serve to delineate who or what belongs to the 'imagined community' that stands in for the idea of the group or society as such.

The second branch of the Durkheimian tradition, which admittedly stretches its conceptual framework up to the point where the ritualistic aspects of our social lives become banal, is exemplified by Erving Goffman's path-breaking work on the small-scale rituals that are at the core of many, if not most, of our social interactions *within* everyday life – from greetings and partings to poses and phrases. For Goffman, then, rituals are not only performed during episodically recurring, extra-ordinary events but throughout and across the various

social situations that ordinarily make up our everydayness. This shift in emphasis – from the macro- to the micro-level – entails an analytical focus not on ritual interactions but rather on what he (1967) described as "interaction rituals" in small-group settings. Goffman (1971) writes:

> In contemporary societies rituals performed to stand-in for supernatural entities are everywhere in decay, as are extensive ceremonial agendas involving long strings of obligatory rites. What remains are brief rituals one individual performs for and to another, attesting to civility and good will on the performer's part and the recipient's possession of a small patrimony of sacredness. What remains, in brief, are interpersonal rituals (p. 61).

Such interpersonal rituals, here, serve as the degree zero – and main site – of social interaction, enabling social bonds between peers as much as avoiding animosity between strangers.

It is in the work of Randall Collins, however, that these branches – i.e. secularisation and banalisation – are most fruitfully combined into a full-blown account of the role of ritual in contemporary societies (1998, pp. 20–24; 2004; see also Ling, 2008, pp. 73–82; Bellan, 2005, p. 185). By combining the macro-level analysis of Durkheimian *ritual interactions* and the micro-level analysis of Goffmanian *interaction rituals*, Collins (2004) develops a definition of ritualistic interaction that encompasses various "local situations" across varying scales (p. 272) (see figure 6.1 below). In doing so, he (1998) accounts for "the dynamics of networks" that produces our daily lives and that is shot through with "the meshing of chains of local encounters that [he calls] interaction ritual chains" (p. 21).

In our everyday lives, Collins argues, we constantly move from local situation to local situation, while meshing chains of more or less ritualistic interaction within and across dynamic (actor-)networks. These situations can be placed on a continuum that on the one end consists of "official ceremonies" (i) characterised by highly formal interaction rituals (i.e. scheduled, publicised and scripted) and tightly focused mutual attention generating "episodic communities", and on the other end consists of "open public situations" (iii), characterised by very informal interaction rituals (i.e. contingent, unpublicised and unscripted) and weakly focused mutual attention generating "ephemeral civility" and, from that point onwards, unravel and dissolve into unfocused interactions such as routine behaviour in public spaces or transactions in market places (see figure 6.1) (Collins, 2004, pp. 272–273).

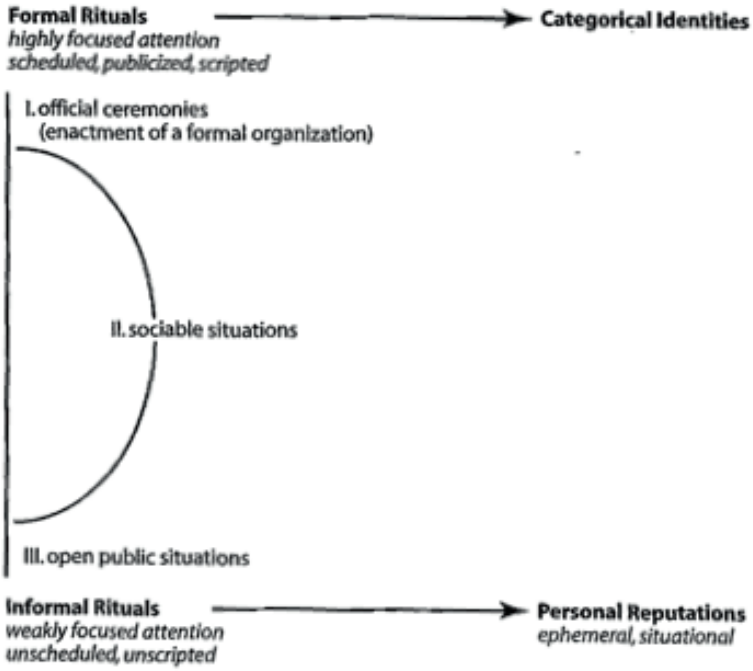

Figure 6.2: Continuum of Formal and Informal Rituals taken from Collins (2004, p. 147).

Interestingly, Collins highlights one situation along this continuum that *directly* bears on our discussion of teenage tweet tribes. 'Sociable situations', the middle category (ii), consist mostly of ritualistic interactions with family, friends or acquaintances (in contrast to the above-described ritualistic interactions among relative strangers assembled as 'publics' in, say, a political rally or a business convention, a train station or a shopping mall). Of course, these situations may be at times more or less formal and focused (e.g. weddings, dinners or festivals) and at times more or less informal and unfocused (e.g. dates, lunches or parties), depending on the occasion. However, in the context of our discussion, these sociable situations have in common that they emanate from interaction rituals that serve to maintain ties among clearly-defined and well-demarcated "everyday communities" (Collins, 2004, pp. 271, 273).

Regardless of whether we speak of a ceremonial, sociable or open public situation, Collins (1998) argues that the following aspects can be found in *any* interaction ritual in our very elaborate meshing of interaction ritual chains:

1. a group of at least two people is physically assembled;

2. they focus attention on the same object or action, and each becomes aware that the other is maintaining this focus;
3. they share a common mood or emotion (p. 22).

We needed this detour along some of the signposts in the debate on rituals for two reasons. First, my argument about the girls' ritualised use of WhatsApp to maintain and strengthen the social bonds of their group whilst being physically dispersed is rooted in Ling's conceptualisation of mediated rituals, which, in turn, is based on the lineage from Durkheim to Goffman to Collins. *Mediated* rituals function in everyday life to patch, stitch and knit together from the fabric of the social a self-assembled and self-identifying group. As indicated, I mostly agree with Ling's conceptualisation of mediated rituals (to which we will turn shortly). Second, I wanted to outline, emphasise and reconceptualise the different 'local situations' on Collins's continuum of interaction rituals (see also Ling 2008, p. 89 for a brief discussion), as they are so crucial to the girls' usage of WhatsApp to stay in touch with their group of friends. Let's address these points further.

We've seen that the girls are constantly exchanging messages within their 'group app' titled '*beste vriendinnetjes*' ('best friends'), alongside group apps for family and friends, work and leisure. In his insightful analysis, which is partly based on an extensive review of the literature on text messaging, Ling (2008) argues that "mobile communication is supporting the development of cohesion in small groups" through mediated ritual interaction (p. 117).[12] He contends that the exchange of greetings and anecdotes, gossip and banter and, even, medium-specific forms of spelling and argot all constitute interaction rituals. Their physical co-presence is mediated by the exchanges through a mobile interface. The prolonged series of such exchanges – any type of exchange, really – throughout the day enables users, then, to focus attention on a shared object of attention, become mutually aware of each other's attention, and engender a shared mood or emotion (to use Collins' definition of interaction ritual).[13] In doing so, mobile phone users, and by extension 'the girls', extend their "original bond beyond co-present situations into the folds of daily life" (Ling, 2008, p. 157).

What makes the use of WhatsApp so different from ritual interaction between dyads, pairs or couples through traditional text messaging is the possibility of exchanging messages both in a group and with a group – in our case the '*beste vriendinnetjes*' group. 'The girls', in

[12] De Lange (2009) provides an interesting take on these mediated ritual interactions by comparing them to the ritual of 'gift exchange' as observed in the tradition of the Kula and as theorised by Marcel Mauss (pp. 30–44).
[13] Ling (2008, p. 61) usefully cites Durkheim in this context: "It is by shouting the same cry, saying the same words, and performing the same action in regard to the same object that they arrive at and experience agreement" (1995 [1912], pp. 231–232).

other words, share their messages with the *group as a whole* and not with individual members. This, crucially, enhances their idea of the group as a group and maintains their sense of being among the group as a whole whilst being in between co-present, face-to-face meetings. The girls univocally spoke about this sense of – let's call it – 'groupness' as something that they most valued about using WhatsApp. 'It's really comforting to chat with *the group*', one of the other girls said [my italics],

> You know that there will always be someone who will respond. When I app, say, F. [*an individual user – RA*] and F. doesn't react. Then nobody responds. Within the 'group app' there is always someone to respond, someone who says: "hey, what's up?" That's just a very nice feeling.

This sense of groupness is a radicalisation of the tendency previously observed in the usage of mobile phones (i.e. traditional text- and voice messaging) towards the strengthening of already existing social ties among small groups of peers such as family and, especially, friends at the expense of the creation of new social ties with strangers (Ling, 2008, pp. 163–166). In the case of 'the girls' the preference for their closely-knit group of best friends at the expense of strangers is very evident indeed.

'The girls', moreover, maintain their sense of the group *as* a group whilst they are not engaged in a co-present sociable situation. In doing so, I would argue, they create a near-constant *mediated* form of a more or less private sociable situation, whilst they are simultaneously engaged, among other activities, in other forms of ritual interaction. They mesh, in other words, the chain of ritual interactions with 'the girls' through all other interaction chains and across every social situation all day, every day. This includes settings that position them as atomised and isolated members of an anonymous public – whether these settings are open public situations or ceremonial situations and whether they are positioned as part of a crowd in public space or as a member of an audience of a TV show they are watching at home (see Couldry (2003) for an insightful analysis of TV shows as ceremonial situations). 'The girls' are always there, with them. As the above quotes indicate, too, the use of WhatsApp enables them to broaden this specific sociable situation as they keep going with 'the girls' to the extent that the intimacy of this situation seeps into every other local situation of their everyday lives.

The most important reason why this is the case is that the WhatsApp group '*beste vriendinnetjes*' serves as a totem for their friendship. Ling (2008, pp. 50–51, 65–67) argues

that in the context of everyday communities in general and mobile communication in particular the phenomenon of a totem is entirely absent from the functioning of small-scale groups. This is a broadly shared view among mobile media scholars.[14] Gordon and de Souza e Silva (2009) for instance note that they agree with Ling's assessment, while extending "[his] analysis beyond the traditional functionality of mobile phones (voice and text communication)" into the realm of hybrid space. I do not agree. In fact, it is precisely because of the totemic qualities of the 'group app' that the group remains "present and active", as Durkheim (1995 [1912], p. 232) put it, throughout the journeys of its individual members through hybrid space.

Totems are, simply put, physical representations of a group in which the *idea* of the group as a group is embodied within an animal, plant or object (Friedland, 2005, p. 240). In a well-known passage (also cited by Ling (2008, p. 61), surprisingly), Durkheim (1995) describes the use of totems in ritual interaction, in classic late 19th, early 20th century sociological terminology:

> By themselves, individual consciousnesses are actually closed to one another, and they can communicate only by means of signs in which their inner states come to express themselves. For the communication that is opening up between them to end in a communion – that is, in the fusion of all the individual feelings into a common one – the signs that express those feelings must come together in one single resultant. The appearance of this resultant notifies individuals that they are in unison and brings home to them their moral unity. It is by shouting the same cry, saying the same words, and performing the same action in regard to the same object that they arrive at and experience agreement (pp. 231–232).

Totems, then, serve both as a *unifying symbol* and symbolic receptacle ("one single resultant") that represents the group, and as *medium* around which and through which individual members are able to perform the rituals that ultimately bind them as a group. Totemic naming therefore ultimately is, as Friedland (2005) argues, a "performative action" in which the group is both produced and handed the means to reproduce itself (p. 240). He (2005) writes:

> That the totem is a symbol of the collectivity does not mean then that it is merely an

[14] If the totemic qualities of mobile interfaces are discussed it is mostly in relation to various 'static' objects imbued with memories such as the phone itself, images of loved ones or significant dates-turned-passwords (see, for instance, Lasén, 2011).

> expression of the collectivity, a cultural reflection of its social existence, of its density, its bounded interactions. The symbol rather is integral to the formation of the collectivity. Through the totemic symbol, unique and exclusive, individuals engage in a communication that ends "in a communion" [*as Durkheim puts it; see citation above – RA*] (p. 246).

Now, such totemic symbols need to be periodically recharged through the group's ritualistic gatherings. If not, they will lose their binding force. Feelings of solidarity, Durkheim (1995 [1912]) argues, "are very strong so long as men are assembled […] but when the gathering is over they survive only in the form of memories that gradually dim and fade away if left to themselves" (p. 232). In this context, then, totems can be seen as symbolic and affective reservoirs that one carries around (e.g. tattoos, feathers, stones, etc.) to remind one about the idea of the group as a group, yet which need to be replenished through episodic co-present ritual interaction as a group.

Ling (2008) argues that mobile communication "obviates totems" and that "the totem has been replaced by perpetual contact" as the sense of group solidarity is "kept alive" through computer-mediated ritual interaction between co-present situations (pp. 50–51, 67). His underlying assumptions seem to be that users of mobile media are (1) keeping alive the memory of co-present interaction though mediated interaction whilst being dispersed across urban space; (2) do not – for this reason – need a unifying symbol to remind them of the group as a group; and (3) reinvigorate their sense of solidary during co-present gatherings. So Ling and Gordon and de Souza e Silva argue that the ritualistic exchange of messages throughout the day replaces the need to carry around some kind of totemic representation between co-present gatherings. This line of reasoning may very well reflect the specific affordances of traditional texting (in which users exchange a string of mostly one-to-one messages without the possibility of grouping users and naming user groups), which, in turn, explains the absence of properly totemic rituals. Yet I fail to see why that would preclude – by definition – *mediated* totemic-based ritual interactions, as they claim. In fact, with the advent of smartphones – and applications such as WhatsApp – these aforementioned technological barriers to carrying around a totemic representation that serves both as a (1) a unifying symbol and (2) a medium for interaction have been removed.

First, users *are* nowadays able to group together a virtually unlimited amount of users and give these groups their proper – 'unique and exclusive' – names. The user group of 'the

girls' is a case in point. The girls are constantly reminded of 'the girls' by the so-called notifications (those beeps or buzzes) that they have received a message, which more often than not seduces them to open the user group '*beste vriendinnetjes*' – the focal point among all of the other user groups in their list (see citation above) – to check their messages. So the user group, here, becomes a unifying symbol for, and a constant reminder of, the group as a group. Second – and this is something that is completely absent from Ling's and Gordon and de Souza e Silva's line of reasoning – a totemic representation is not merely a unifying symbol but also the medium for the group's enactment of ritualistic interactions. This is to say that – as a (mediated) medium – the totemic representation also constitutes the group, as it signals to each individual that they are in a situation in which they can *shout the same cry*, *say the same words*, *and perform the same action* in regard to the same object of attention, which, in turn, leads to some kind of unison, a fusion into a common mood – "a sense of commitment", as one of the girls put it.

In this context, I contend, the totemic qualities of the 'group app' – accessible anytime, anywhere – blur the boundaries between co-present and mediated interaction. Or, better still, turn the difference between co-present and mediated interaction into a difference in gradation rather than a difference in degree. For the girls, there is no such thing as periods – or gaps – between distinct co-present sociable situations that need to be bridged by mediated interaction rituals. Rather the group as a whole is permanently in a *hybrid* situation in which they at times exchange mediated rituals and at other times co-present rituals (and even then the mediated and the co-present blur, as we shall see in this chapter's final section). The girls are always already there, with them, 'present and active', as group. Not so much in the *folds* of everyday life, as Ling put it, but rather throughout everyday life, in its every nook and cranny, across every social situation, from open public situations to official ceremonies via social situations.

Let's move to the third and final point that I would like to make. Ling (2005) famously describes mobile communication as the maintaining of a "symbolic umbilical cord" (p. 175). I think this is a very apt description. It also reminds me of Peter Sloterdijk's notion of micro-spheres, or bubbles. In *Bubbles* (2011) Sloterdijk reconceptualises Heidegger's analysis of Being-there and Being-with-another (which we also encountered in chapter 2) by arguing that subjects are, on an ontological level, not isolated individuals but always already – i.e. pre-subjectively – at least a dyad, more than one, multi-polar, something he symbolises by using the womb – and, hence, the umbilical cord that binds mother and child – as the Ur-scene of all micro-spheres (p. 169). Micro-spheres are the smallest scale on which, or rather in which,

humans co-create interiors of intimacy that protect, symbolically, against the inherent meaningless of life. “What recent philosophers referred to as ‘Being-in-the-world’” Sloterdijk (2011) writes with typical panache,

> is first of all, and in most cases, being-in-spheres. […] The symbolic air-conditioning of the shared space is the primal production of society. Indeed – humans create their own environment; not according to free choice, however, but under pre-existing, given and handed-down conditions (pp. 46–48).

Due to the references to phenomenology and Heidegger and production and Marx (in the last sentence) as well as the emphasis on being-in-spheres in this key passage, there is more than a little echo, or at least partly an overlap with, the preoccupations of Lefebvre’s spatial triad. One of the principal functions of mobile interfaces in the urban operating system – with its nomadic ways of being – is the maintenance work that goes into keeping this symbolic air-conditioning humming at just the right temperature (see also Habuchi, 2005). Previously we have already seen that from the standpoint of production, being-with-another-in-hybrid-space, as well as its associated opportunism, curiosity and small talk, is absolutely key in, and for, the urban mode of production; now we see that from the standpoint of our everydayness these mobile interfaces are the linchpin of our assemblages, and even, the mega-machine. Mobile interface spheres may very well be the three-dimensional phenomenological rendering of the urban operating system.

6.3 The Presentation of the Self(ie)

The girls share many, many photos – and more and more, actually. And through ever more applications. Over the years their form of communication – their exchanges with colleagues, friends, and family in WhatsApp groups; the messages they post via, mostly, Facebook, Instagram and Snapchat – has become geared towards images rather than words, the visible rather than the sayable. Exchanging photos – and especially selfies – has become a key means of communication.

Interestingly, they have formulated for themselves very clear distinctions between the various applications they use to share photos. Broadly speaking, and this invariably goes for all of them, Facebook is seen as a very public sphere, Instagram as a semi-public sphere, Snapchat as a private sphere and WhatsApp, as argued above, as an intimate sphere. These

distinctions correlate with the number and nature of the peers within these respective social media networks and the photos released within each sphere.

The social circle on Facebook is the largest and mainly consists of people they still regularly see (friends, family, colleagues, classmates) and people they do not (any longer) regularly see, but have met at least once *In Real Life* (including old classmates, former colleagues, holiday friends, friends of friends, etc.). One of the girls states (9):

> I am friends with old classmates, current friends, but also family, colleagues and, especially, old acquaintances.

Even parents and parents of friends have joined Facebook. One girl explains (1):

> When the mother of one of my friends wants to become Facebook friends – and, by the way, I mostly know them well – I always accept their request. But – for instance – when the mother of one of the guys wants to add me then I also accept them. Because Facebook has become sort of *public.*

Facebook has become, in other words, a virtual public sphere populated by all the familiar faces the girls can run into, or have run into, in and through their daily lives. This determines the photos they share, and, especially, do not share, on Facebook. Nowadays, the girls rarely post – let alone share – pictures on Facebook. One girl explains (8),

> When we transitioned from Twitter to Facebook we used Facebook very much like Twitter – so you shared *what* and with *whom* you were doing something, something random, like, I am with X and Y, having a drink or watching a film. But that has become something we do less and less up until the point we barely or very rarely do so. […]
>
> In the beginning, I very often checked in and posted a photo. For instance, when you were going out *you checked in* where you were and with whom you were there. Or when you were going on vacation you made a group photo, *checked in* that you were on Schiphol, were you were going, with whom. […]

> So I used to check in and post photos a lot, but nowadays not any more, not very often. […] I now only post something a couple of times a month.

When they do post photos, in sum, it is mostly – relatively innocent or censored – images of holidays, festivals, nights out, graduations or other 'special' moments or places, as they would describe it.

On Instagram, which they see as a semi-public sphere, the girls have either a similar befriending-policy as on Facebook (but since Instagram simply is a more recent platform only more recent contacts) or consciously only add *peers* they still regularly see (and this excludes vague acquaintances, superiors or parents). This influences the nature and number of pictures they share with their 'insta'-followers. They share far more pictures – almost routinely – and slightly less censored images than they would do on Facebook. Yet the nature of the pictures is similar, i.e. pictures of special events and places. One girl explains (11):

> I mostly post pictures when we have a nice evening, or when we just go somewhere or when I am myself somewhere. […] So mostly when you are, say, somewhere. And not when you are at someone's house.

And another girl (3B) adds:

> I do it unconsciously. Mostly when we go out or something like that.

Instagram, which is an application that is specifically geared towards sharing photos, has, in other words, replaced Facebook as the go-to platform for sharing pictures of special events and places. Most of the girls add location information to their images (filters, tags), and tag those they are out and about with. In a sense, most, if not all, of the girls followed a single routine (which they developed on Facebook and continued on Instagram): arriving at special event or place, taking and sharing a picture (often a selfie or group), checking in (through 'add location'), tagging who they are there with.

The image messaging application Snapchat, finally, enables the messaging of friends, and groups of friends, through images (either single images or stories consisting of series of images). The girls form a 'group' on Snapchat, too, and they mostly exchange image messages with each other. These photos are, also, not as stylised as those shared via Facebook or Instagram (or not at all stylised at all). One girl (8) said:

> We also have a Snapchat group with the girls. And when I hate something, I most of the time send it just to them. So we share the most ugly photos. That's what makes it fun.

These image messages – often selfies – are similar to the content (not the form of the content) they share within their WhatsApp group in the sense that they consist of uncensored snippets of their daily lives and that these image messages constitute a rolling conversation (though shorter than a WhatsApp conversation) between and among the girls. One girl (6) explains:

> I often make selfies when I go to my work or when I am on a terrace with friends. The more general things, as it were. When I am in the train, for instance, I send a selfie to all the girls that I am going to school and then someone sends a selfie back with 'good luck!' and then I might send a selfie with, for instance, 'what are you going to do tonight' and then she responds with, 'well, this or that' and so on…

So these conversations are structured around photos, and often selfies, with brief captions. The girls report that this makes the messages more *authentic* in the sense that you can see that someone 'really means it' when they send a subtitled selfie and their selfies are not stylised; and more *meaningful* in the sense that images convey more information than just words.

Interestingly, then, we can compare the use of subtitled selfies to the use of emoticons in order to imbue a message with an emotional charge or indicate its affective register. One girl (6) explains:

> So when, for instance, someone sends 'my exam went bad' with an image of a class room, I might respond with a selfie with a face that says 'too bad, next time better' […] or you put up your thumbs and smile when you are happy or when your proud of what someone has achieved.

And another girl (11) reports:

> Yes, we do react to each other's photos and videos. So, for instance, when you are in your bed and someone sends an image that says sleep well, someone else will also

> send such an image. So, yes, we react to each other with images. […] we also react through the chat. […] Yet on snapchat we talk much less than with WhatsApp.

The Snapchat group, in this sense, provides a very wide range of expressive possibilities that are used in conjunction with, and alongside, the '*beste vriendinnetjes*' WhatsApp group.

Taken together, we can conclude at least two things. The fact that Facebook, Instagram (owned by Facebook) and Snapchat collect and store all of their user data is not an issue at all. Yet the girls are very aware of the privacy issues related to sharing images via social media platforms and mobile applications. They would never share anything that could be perceived as inappropriate by the respective publics on Facebook, Instagram or Snapchat. They are, in other words, constantly guarding the boundaries between the public, semi-public and private spheres of their daily lives (and this often translates into their privacy settings on the respective platforms that often constrain the visibility of their posts to those who they have accepted as friend or follower).

The public and semi-public spheres of Facebook and Instagram are routinely used by the girls to display their geographic mobility by means of (mostly) selfies (and group selfies) of special events or places, as well as the routine addition of location information (via check-ins, geotags, filters) and social peers (through tags or hashtags). In the presentation of the self(ie) it greatly matters, in other words, that you show yourself as being on the move, experiencing new things all the time. In fact, this practically is the only thing worth sharing in the public and semi-public sphere (populated by the people you know). Seen from this perspective, Facebook's '*check-in'* button and Instagram's '*add a location'* button are a crucial feature of the ideological apparatuses in, and of, a hybrid space that emphasises social and spatial encounters that are different from one's daily routine-like social and spatial encounters. They signal to, and interpellate, their users, in other words, to roam across hybrid space and leave the beaten track of their daily routines.

Some – not all – of the girls reported, too, that 'checking in', as they routinely described it, doesn't just serve as a means of presenting the self(ie) through location, but also serves to archive the places they have visited and, hence, as a memory tool. One of the girls (1) said:

> Sometimes things get lost. But when you then go back to 2011 or something like that, you can easily find it yourself. Why? Because I like to look at old pictures. Because

> most of the time when I have checked in, I think, Oh, that was fun. I was with those people and I was there.

Interestingly, this reflects how some users were using classic Foursquare (Frith, 2014) and are now still using the Swarm application. In its latest iteration, Swarm is even being constructed and marketed ('remember everywhere') as a memory tool that allows users to archive the places they have visited. Apparently, this is important to people's lives and shows, once more, the relative importance of constant mobility in the urban social operating system.

6.4 Attention and Distraction in Hybrid Space

I opened this chapter by describing a scene I observed many times over the years. The girls, close friends, would get together after school or before a night out and gather around a table to make plans and discuss whatever it is that teenagers discuss. Meanwhile, their smartphones buzzed continuously, their screens lit up incessantly and the sounds of incoming texts, pings and messages filled the room. At times one or two girls would momentarily drop out of the conversation – either for some kind of tête-à-tête with a direct neighbour or for some sort of tête-à-phone with a distant friend. Yet there were hardly any signs of irritated looks or stalling conversations. Rather, the sprawling discussion would be effortlessly sustained by a series of well timed, meaningful remarks brought to the table by first this girl, then that girl (or all at once, of course), proving their ability to remain attentive to the conversation's course and content while occupying themselves with their smartphones.

Intrigued, I asked the girls what they were doing and how they were doing it. Almost univocally, their first description of their behaviour resembled a negative definition, structured around the bad example of one of their friends. One girl (3b) said:

> When we are just among friends, and when the conversation is not about important things… or heavy stuff… I type and talk at the same time […]. But I find it really annoying – and one of the girls, X., does it all the time – when someone does not react anymore because *she is sitting in her phone*. And I've seen it with some others too. They are so *in* their phone that they do not notice that someone is speaking to them. I find that strange…

Another girl (1) phrased it in similar terms:

> When I receive a message I can still follow the conversation. But X grabs her phone and *doesn't come out of it anymore*. […] And then you can call her one or two or one hundred times, but she doesn't put her phone away until she's done… that's annoying: that someone cannot continue the conversation until she is done with that phone.

I could've added another nine quotes. Indeed, all of the girls pointed out that one and the same member of their group frustrated the conversation process. "She is awfully distracted, unable to have a normal conversation," another girl moaned. "She is always *in* her mobile", thereby implying she and her other friends were not.

Their choice of words (i.e. sitting in a phone and not coming out of a phone to have a normal conversation) suggests that they do not consider themselves to be overtly distracted. They are, in fact, quite comfortable with the bombardment of stimuli of and within hybrid space. "When we sit around a table somewhere," one girl (1) tentatively explained,

> we are doing things with our phones *and* we are talking among each other *and* we are talking in the group. […] So everyone has their phones in their hands or puts them on the table… until they receive a message, of course, or think, after five minutes or so, well, it's about time to check and have a look. […] It can be a chicken farm. […] We all have, in fact, an extra person with us.

This is a telling observation. It is well documented in mobile phone studies, most notably within the context of one-to-one text messaging, that reading or writing messages while having a face-to-face conversation is often considered to be disruptive. Among these teenagers, however, reading and writing messages is not considered to be distracting, let alone disruptive. Rather, it seems to be seamlessly integrated within the exchange – texting and speaking are on equal footing. In fact, the screen is just another person to include within the conversation. Another girl (2) expressed a similar insight:

> Sometimes, when not around, people talk through the 'group app'. So when we are all together, and someone says something through the app you reply… or somebody notices it, and says: "She says this or that"… and then someone… or some others… react to it while the conversation goes on… or, perhaps, you jump to the topic that is being discussed through the app.

This mixing of seemingly equally important conversation partners and discussion flows points towards a new perception of the relation between the realms of co-present interaction and computer-mediated interaction. Around the turn of the millennium these realms were still perceived separately by mobile phone users and theorised as such by mobile phone theorists (see chapter 1 and chapter 2). In the perception of the girls the realms of co-present interaction and computer-mediated interaction have converged. One girl (4) put it thus:

> It's actually very simple. […] I use WhatsApp while having a group conversation. So you WhatsApp and you talk – and all the girls do exactly the same. So you have a conversation, partly through WhatsApp, and everything happens at the same time. […] You don't put away your phone to not look at it again. All these things go on at the same time.
>
> Sometimes the conversation even continues through the group app. So – we are with a smaller group of girls and we discuss something and then someone 'throws' it on the app so that everyone can react to it and can participate in the conversation. In that way, nobody misses anything. Sometimes we send photos or a video of all of us sitting somewhere so that someone – who is for example working – can follow what is going on, and still be a little bit present.
>
> So that's handy: you don't miss anything; everything is shared in the whole group. So everyone is present. When you are in the conversation and you chat along, you are actually present.

This illustrates that the girls do not make an ontological distinction between physical intimacy and virtual intimacy. For them, social space truly is a hybrid space. Since they regularly receive the same message at the same time or directly send one message to all members of the group, they also *can* experience the situation as if physically non-present members are present and participating in the group conversation. They all simply pick up more or less the same stimuli at the same time. This synchronises and smoothens the group interaction.

Meanwhile, the girls have developed various ways of coping with the demands of what one girl (1) called a "chicken farm" and Goldhaber (2006) described as the "attention economy" of hybrid space, in which

> one is never not on, at least when one is awake, since one is nearly always paying, getting or seeking attention, in ways and modes that are increasingly organized and tend to involve ever-large and more dispersed audiences.

To be sure, their modes of "managing attention" (Lanham, 2006) are not so different from the various ways in which humans ordinarily distribute their attention as they are better attuned to the hybrid quality of social space. This entails that, in many situations, the girls are dividing their attention between stimuli originating from at least two focal points, that is: the co-present and the mediated, in and of their respective worlds. "You do two things at the same time", one girl said. "With your eyes you follow the app and with your ears the conversation – where you are." This is not multitasking. In fact, neuroscientists have shown that multitasking is biologically impossible. The brain is not wired to pay attention to more than one attention-demanding stimulus at the same time. Rather, they switch, constantly and rapidly, between different focal points (see also De Mul, 2008 and Kirchner and De Bruyckere, 2017). The continuous presence of at least two attention-demanding focal points requires, then, a constant alertness – i.e. a continuous heightened activity of the neural system – to the stimuli that pop up in their hybrid environment so as to be able to filter for whatever seems most relevant.

Perhaps we could fruitfully compare this new situation to the restructuring of daily experience after the growth of industrial cities in the 19th century, as analysed by Walter Benjamin. The first generations of workers that migrated from peasant regions to metropolitan areas needed to adapt their cognitive processes to the 'shocks' of the modern city. The urban sensorium, with its bombardment of stimuli that have no direct bearing to one's personal life, forced those newcomers to develop mental coping mechanisms so as to not be overwhelmed by this new "structure of experience" (Benjamin, 2015 [1939], p. 156). Benjamin, following Baudelaire and Freud, argued that in response to this stimulus overload urbanites *refined and extended* (not developed!) both their physical set of conditioned reactions to specific stimuli and their mental mechanism to filter for relevant stimuli. The former does not require any conscious attention; the latter raises awareness of the stimuli worthy of one's attention (and not all the others). "The acceptance of shocks is facilitated by training in coping with stimuli" (Benjamin, 2015 [1939], p. 158). For later generations, then, these responses to the urban sensorium came naturally, became a second nature.

This is not to say that the second nature that the girls developed is unproblematic. The constant alertness to stimuli emanating from two focal points induces the manic restlessness that has become the dominant structure of experience of hybrid space. This manic restlessness

is both/neither positive and/nor negative (to adapt Kranzberg's (1986) aphorism somewhat) – yet neither is it neutral.

On the one hand, these auto-reports on the self(ie) must be contextualised by various studies on the immediate effects and educated guesses on the long term effects of hyper-sequentialised attention or permanent distraction (see for instance Carr, 2010). As de Mul (2008) argues, hyper-sequentialised attention – that is: rapidly switching between tasks that require our full attention, such as a conversation *around* a table and *in* WhatsApp – is 'objectively' less efficient (because it takes relatively more time and results in less cognitive retention) and is 'subjectively' stress-inducing (because there is always something that requires your attention (pp. 180–181).

On the other hand it is a coping mechanism that enables them to navigate – with seeming ease – the demands of the hyper-stimulations of hybrid space (De Mul, 2008, p. 182). The girls, as mentioned, are digital natives born in the network society and bred in hybrid space (which emerged, as previously argued, around the turn of the millennium, with the commodification of mobile devices and the proliferation Web 2.0 services). For them, as for any digital native, there is nothing unusual in coping with what may seem to be an information overload to older eyes and ears. They are, in fact, well trained for the continuous filtering of stimuli, the rapid switching of foci and what could be described as a hyper-sequentialised attention – to such an extent, moreover, that they *report* that they are not distracted by reading/writing messages while having face-to-face conversations and that, in fact, co-present and mediated interactions blend into one single exchange or rolling conversation.

6.5 Openings and Conclusions

In this chapter I argued that the use of mobile and locative interfaces enables territorial behaviour that can be characterised as a tribal mode of spatial appropriation. This tribal mode of appropriation is not simply restricted to teenage girls. While it may be the case that teenage girls are particularly prone to constantly 'tweet' their whereabouts, the pros and cons of any location, as well as their intentions, their territorial behaviour might just as well be seen as a more general mode of coping with an urban mode of production that is increasingly geared towards nomadic – and highly flexible – ways of working and lifestyles. The dominant technical composition of labour requires that we are constantly on the move – onwards and upwards – in our quest for new and aleatory social and spatial encounters, as much as we need to juggle everyday tasks in today's highly flexible spatiotemporal regime. Seen from this

perspective, we can add yet another reason why the 'Young-Girl' is, as Tiqqun (2012) once theorised, "the total product and model citizen" of contemporary capitalism. The 'Young-Girl', seen from this perspective, embodies a preferred, and ultimately highly necessary, mode of communication in the urban operating system.

This tribal mode of appropriation results, after all, in an ambient awareness of the whereabouts, comings and goings, and activities of one's peers and is a function of, and functions in, the urban operating system. Mobile interfaces, such as WhatsApp, enable near constant ritual interaction chains, which are then meshed in, and across, every other social situation in everyday life. This results in the construction of, and a constant foregrounding of, spheres of intimacy that shelter users from an otherwise impersonal urban environment. Such ambient awareness and these spheres of intimacy have resulted, too, in the changed nature of our cognitive maps of social space. Whereas Lynch argued that these maps consisted mostly of static landmarks, contemporary representations of space, as illustrated by my case studies into the use of Grindr and Twitter and WhatsApp, seem to be dynamic maps of positions, movements and directionalities.

I argued, too, that the girls' presentation of the self(ie) invariably is related to the sharing of special places and events and is communicated through location information (geotagging, filters, check-ins, etc.). This, to me, reflects the ideology of mobility and constantly having new social and spatial encounters that characterises hybrid space.

Finally, I argued that the girls represent a generation of digital natives that, phenomenologically speaking, do not, and cannot, make a distinction between physical space and virtual space. Rather, they merge these spaces by rapidly shifting attention from, and by foregrounding and backgrounding (in ways reminiscent of the gay men in the previous chapter), one domain or another without losing track of what's happening in their environment.

CHAPTER 7
CONCLUSIONS

7.0 Introduction

In this final and concluding chapter I summarise the findings of the individual chapters and attempt to make connections between and across chapters, and I generalise some of my observations and analyses. The main contribution of this dissertation has been, I contend, that it has broadened the definition of hybrid space, and hence the scope of any critical inquiry into the nature of hybrid space.

Hybrid space has been mostly defined as a social space in which the ontological convergence of the bricks of the physical realm and the bits of the digital realm has been realised as a result of the proliferation of mobile and locative interfaces. Hybrid space, in this definition, is produced *with* and *through* the use of mobile and locative interfaces, and only *if* and *when* users open this or that smartphone application. Yet this is too narrow a definition. It analyses hybrid space by means of the narrative device of the *deus ex interface* based on an origin story in which the technological conditions of hybrid space – proliferated mobile interfaces and unscrambled GPS signals – emerged at the turn of the millennium. In this dissertation I have broadened the definition of hybrid space to the extent that it should also be seen as a product – and reproduction – of the urban mode of production, as well as a very specific way of life.

7.1 Conclusions: Chapter overview, results, and general findings

In Part I, 'The Social Production of Hybrid Space', I analysed the emergence of the urban mode of production and hybrid space from the perspective of, respectively, the technological revolution and the urban revolution.

In chapter 1, I argued, following the work of Carlotta Perez (2002), that the technological bang constituted by the 1972 invention of the microchip inaugurated a period of deployment (1970s–1990s) and a period of instalment (2000s–present), punctuated by the so-called dotcom crash the late 1990s and early 2000s. This enabled me to periodise the emergence and becoming dominant of the networked mode of production as well as hybrid space in its narrow definition – that is: as a result of the sublation of a digital dualism that could still be maintained during the instalment period, yet became untenable during the deployment period. Today we are always already in hybrid space.

The logic of hybrid space (in its narrow definition) can be best described by means of the Web 2.0 metaphor structured around user-generated content and many-to-many communication across interoperable platforms that recombine data to personalise interfaces, including mobile and locative interfaces. Over the course of the 2000s, this new ecosystem quickly established itself as the dominant cultural tendency in, and of, hybrid space.
I argued, too, that the main ideological construct of hybrid space should be described, using the work of Rainie and Wellman (2012), as networked individualism. Hybrid space, in other words, produces a very specific subjectivity, a preferred way of life, in and for the networked mode of production. By analysing the networked individualism of hybrid space along Lefebvrean lines I showed that it, as an ideology, consists of at least three new commonsensical assumptions.

First, spatial practices ought to take place in a networked operating system, a specific mode of social cooperation across social life, that produces networked individuals with the networking skills to act, think and feel as a central node in dynamic, heterogeneous, multi-functional and overlapping networks in order to have social, economic and personal success.

Second, the dominant representation of space converged around the post-privacy discourse emanating from Silicon Valley based on the assumption that social interactions and spatial practices in hybrid space should be completely transparent for social media corporations while they should be shielded from governments. The interviews I conducted confirmed the prevalence of this post-privacy discourse. All of my respondents had accepted corporate surveillance as a matter of fact, something that is the normal state of affairs.

Third, the dominant structure of experience of hybrid space is determined by the notion that our mobile and locative interfaces should be 'always-on/always-on-you' (Turkle, 2008). This enables users to organise the environment around things that personally matter to them, to do more things in less time, and to constantly validate their thoughts and feelings with their peers. These aspects, I argued, point to a structure of experience that can be best described as a restless displacement of boredom by following the principle of want. Indeed, the most common trope in the interviews I conducted was the notion of boredom, and it was often evoked to pinpoint the moment when users turn to this or that interface to foreground a specific element of their hybrid environment.

In chapter 2, 'The Urban Mode of Production', I argued that today's mode of production emerged in the 1960s and became the dominant mode of production in the 2000s. The transition from an industrial to an urban mode of production – by way of the post-industrial or informational mode of production – can be pinpointed by three structural

changes in the technical composition of labour ('How is production organised?' 'What is produced?' 'Who produces?'). Labour got increasingly structured around the production (and consumption) of immaterial goods rather than material goods, it got increasingly organised in small, mobile production units organised as temporary networks of cooperation, and it got increasingly autonomous, flexible, and nomadic. By analysing two different yet related passages from the 1960s to the 2000s – the indirect passage from the 1960s urban revolution and the direct passage from 1960s California – I argued that these structural changes simultaneously inaugurated two interoperable forms of control: political-economic control and its corresponding neoliberal governmentality, and cybernetic control and its associated algorithmic governmentality.

This shift from an industrial working class to an urban multitude entails that (1) the city rather than the factory becomes both the locus and the engine of production and that (2) the focus of production has shifted from objects on assembly lines to subjects in networks. The immaterial labour that is at the core of the urban mode of production feeds off, and feeds into, the common forms of wealth (languages, codes, affects, ideas, signs, symbols, etc.) that circulate in the metropolis and the aleatory (social and spatial) encounter with that which is different that characterises city life, as it allows creative recombinations of communicative, cognitive and affective capacities.

Taken together, then, I argued, hybrid space produces networked dividuals (rather than networked individuals); the preeminent subject of the urban mode of production. I analysed the networked dividualism (an amalgam of networked bodies and dividualising user profiles) of hybrid space from the perspective of the Lefebvrean spatial triad.

First, I showed that spatial practices take place in an urban operating system (rather than the networked operating system). This operating system produces subjects by means of a double logic that is seemingly contradictory, yet wholly compatible. This double logic consists of the 'for benefit' logic of the user-cum-commoner and the 'for profit' logic of the entrepreneur-cum-consumer of the self.

Second, I argued that the dominant representation of space – its post-privacy transparency – enables a constant modulation or software-sorting in, and of, hybrid space intended to channel desires (anticipating wants and needs) into what you can want and may need under determinate circumstances, including your coordinates in hybrid space, your social standing or your spending power.

Third, I argued that the dominant structure of experience could be described as a manic restlessness induced by (1) the post-boredom promise of smartphones ('make the most

of now') and its logic based on the principle of want, as well as (2) the self-direction, and temporal and spatial flexibility, demanded from labour working and living under precarious circumstances. This manic restlessness is epitomised by the everyday opportunism, idle chatter and curiosity that characterise city life and are at one and the same time highly productive for – and the constitutive experience of – today's highly flexible and immaterial forms of labour. Manic restlessness must therefore be thought of neither negatively nor positively – but must be seen as the experiential register of the networked dividual, and hence as the engine behind the 'for benefit' logic and the 'for profit' logic. Meanwhile, the seam between the fabric of immaterial labour and the fabric of urban life is held together, and stopped from unravelling, by the mobile and locative interfaces that enable us to navigate, and negotiate, the nomadic urban operating system.

In Part II, 'Representations of Hybrid Space: Networked Dividuals', I expanded the above-mentioned themes and arguments by conducting one case study into locative media art and one case study into the interfaces and algorithms of Foursquare. Both cases illustrate that the preferred way of life in the urban mode of production is hyper-mobile and geared towards aleatory social and spatial encounters in a competitive environment (in this case through games and the gamification of daily life *tout court*), while the directly lived experience of hybrid space should be practical, positive and fun – or at the very least not boring.

In chapter 3, 'Networked Bodies', I analysed the capacities of our networked bodies as envisioned by a first wave of artists working with mobile and locative interfaces. I observed that the urban mode of production has as a preferred way of life a constant encounter – in a social and spatial sense – with new people, places, and experiences. This corresponds to the situationist impetus of the locative media art scene. I showed that its self-declared goal *is* situationist and its self-described methods are the drift, détournement and psychogeographic mapping. The drift is all about new social and spatial encounters and experiencing the city differently; détournement is translated in our newfound ability to leave, and read, semiotic layers of folk knowledge in the urban environment, and psychogeographic mapping is translated into cartographic interfaces that all are about mobility, directionality and affects.

In this sense the situationist locative media artists indeed work with the newfound capacities of the networked body and are wholly of our time. They must therefore not be seen as a political avant-garde but as an aesthetic avant-garde. As an aesthetic avant-garde they anticipate, or work at the brink of, a structural transformation of public space as a result of the increased capacities of the networked body. The structural transformation is a shift from a representative regime of public space (determined in the first and last instance by top-down

state actors) to an aesthetic regime of public space (determined in the first instance by the networked bodies of user-cum-commoners and in the last instance by a corporate dividualising of the entrepreneur-cum-consumer of the self).

In chapter 4, 'Dividuals', I analysed the interfaces and algorithms of classic Foursquare and its subsequent iterations as Swarm and City Guide. These interfaces constantly interpellate users to look out for aleatory social and spatial encounters with a difference (which incidentally would be an appropriate marketing slogan: 'chance encounters – with a difference'). This closely resembles the preferred lifestyle in the urban operating system and makes Foursquare a good illustration of the ways in which capitalism is shaping in its own image the hybrid spaces that make up our everyday lives. The push notifications, the main interface, the venue interfaces: everything is designed to interpellate users into hypermobile subjects, encountering the new, while – and this is important – its affective register is geared towards the pragmatic, the positive and the fun.

Foursquare incorporates – or cooptates – the newfound capacities of the networked body to a tee. Its emphasis on aleatory social and spatial encounters resembles the situationist drift, it reminds us of the situationist détournement as it enables users to leave photos and suggestions, and it invites users to constantly share how they feel about a certain place through tips ("what's good here, Robin?") and ratings (with hearts) in order to create psychogeographic maps of the urban environment.

Yet Foursquare's algorithms also capture these newfound capacities of the networked body by algorithmically controlling the choice architecture of the dividual, i.e. that which it can want under determinate circumstances based on past behaviour. Foursquare has very detailed location data (say, on the third floor, at the end of the hallway, you can find the toilets) and very detailed user data (say, at 16:00 you usually buy a cappuccino at Starbucks). With this data it can anticipate desires and provide users with what they can want in any given circumstances. Its algorithms, in other words, modulate space based on very refined user profiles and detailed context awareness. It is for this reason that Foursquare has established itself as the Google of context rather than the Facebook of places it had set out to become.

I argued that, ultimately, the algorithms of Foursquare – and similar mobile and locative interfaces – orchestrate chance, a notion that I theorised along the lines of the Lefebvrean moment (which is a theoretical counter-weight to the situation). Both situations and moments pertain to aleatory and playful encounters in everyday life. Yet the situation – like a locative art project – is pre-conceived and actively constructed, whereas the moment must be grasped on the fly, as it presents itself in and through our everydayness. Crucially,

however, these chance offerings are not completely random, or serendipitous, as they are presented as choices to what I have called the consumer-of-the-self. They are, in other words, based on past preferences and result from the outsourcing of our by-now digital *metis*. Still, however, they enable new recombinations of the communicative, cognitive and affective resources that are so pivotal for immaterial production, albeit recombinations based on minor differences. For immaterial production, however, this does not really matter. The slightest difference may very well lead to productive recombinations. Chance encounters, one could argue, are pivotal in, and for, the urban mode of production. So pivotal, in fact, that they need to be orchestrated.

In part III, 'Bubbles Bursting with Desire, Spheres Teeming with Intimacy', I conducted case studies into the use of mobile and locative interfaces by teenage girls and gay men.

In chapter 5, 'London Cruising', I analysed the ways in which gay men use Grindr, a GPS-enabled application to meet other gay men. Below I have re-organised my findings along the lines of the Lefebvrean spatial triad in order to tease out some general conclusions.

First, mobile and locative interfaces, such as Grindr, heighten the spatial awareness in perceived space of the locations of our social peers, i.e. other users with whom we are sharing at least one characteristic, interest or goal. We can perceive whomever (or whatever) happens to be of interest not only in our direct vicinity but also across large areas. In the case of Grindr, this obviously is sexual orientation and age, shared traits so generic that the interface includes many different people from many different backgrounds and with many different intentions. It is important to note that the filtering of hybrid space mostly occurred *a posteriori* and by the users themselves. The modulations by Grindr's algorithm are, in other words, minimal. In this manner, mobile and locative interfaces may turn hybrid space into a social space full of potential aleatory encounters with difference.

Second, mobile and locative interfaces change the directly lived experience of hybrid space by enabling a constant foregrounding of those aspects of the environments that matter – or are of interest – to you, personally. This constant capacity for back- and foregrounding personalises hybrid space as much as it plays into the manic restlessness that is the dominant structure of experience. This may have pathological effects, as the interviews showed. Yet the restless foregrounding of this or that element that matters also enables the synchronisation of desire, something which I defined as the seizing of a chance offering as it aligns with both what you want and what someone else wants under determinate circumstances. In this way, mobile and locative interfaces enable chance couplings and assemblages of networked bodies.

Third, Grindr's interface enabled – and was geared towards – spatial practices and social interactions that cover the most basic categories on the spectrum of human association: neighbourliness and friendship and love and sex. So far from only promising new social and spatial encounters, mobile and locative interfaces may very well turn strangers – of the familiar or the unfamiliar kind – into fellow travellers or, even, bedfellows.

Fourth, the heightened spatial awareness of peers, the ability to constantly back- and foreground, and the potential for aleatory encounters changes the cognitive maps of our hybrid environment. Grindr users are very much aware of a dynamic network of queer-nodes that overlay their more traditional mental images of the environment. Interestingly, these nodes were conceptualised on the basis of proximity and directionality.

Fifth, the representation of space, seen ideologically as the representation of the subject's imaginary relation to the sum total of all social relations, got, as it were, de-politicised. While Grindr enabled a sense of community for the gay community itself, it also furthered a loss of visibility of queer culture for the community at large (as it does not any longer take part in that which is common to the community). This points towards a new property of public space. Networked bodies are increasingly capable of creating publics for their personal concerns, interest or goals, yet public space gets increasingly personalised (because users of mobile interfaces address their own publics) and compartmentalised (because these publics are no longer visible to one another). Moreover, social media corporations increasingly patrol the boundaries of what can be visible or sayable in hybrid space. The interface of Grindr, for instance, abides to the rather puritan sexual mores of the Apple store but, and this is something that we haven't yet touched upon, the application is also geared towards couples and not, say, threesomes or foursomes or orgies. All in all, mobile and locative interfaces may very well lead to a depoliticisation of the aesthetic regime of public space and the reproduction of dominant – and in this case heteronormative – representations of space.

In chapter 6, 'Teenage Tweet Tribes', I conducted a case study into the use of mobile and locative interfaces by girls in their late teens and, ultimately, early twenties. I paid particular attention to the various social media applications they used to share their locations, activities and experiences with, and across, their various social circles. In doing so, I analysed with whom, and how, these girls stayed in touch while they moved through hybrid space. I have again reorganised my findings along the lines of the Lefebvrean triad in order to tease out more general conclusions.

One, the girls use mobile and locative interfaces to sustain a tribal mode of spatial appropriation that befits our nomadic spatial practices in the urban operating system. In this sense, their territorial behaviour (as a mode of communication) – i.e. constantly signalling, like tweeting birds, both their whereabouts and the properties of this or that location – has become a necessity for our highly mobile and flexible lives in the urban mode of production. We have seen that from the standpoint of production, being-with-another-in-hybrid-space, as well as its associated opportunism, curiosity and small talk, is absolutely key in, and for, the urban mode of production. From the standpoint of our everydayness, we can now add that mobile and locative interfaces are the key tools to coordinate and sustain cooperation within the urban operating system.

Two, mobile and locative interfaces enable users to create, and sustain, chains of interaction rituals that they mesh through and across every social situation of everyday life, resulting in intimate spheres that users, as it were, carry with them all of the time. So whereas Grindr's and Foursquare's interfaces are geared towards new social and spatial encounters, mobile and locative interfaces such as WhatsApp or Snapchat can also be used to filter out stimuli that are unrelated to one's life (which is one of the defining traits of city life: the need to cognitively process and filter such alien stimuli) and filter in stimuli that are personally relevant and familiar.

Three, territorial behaviour and ritual interaction chains result in what can be described as ambient awareness: the capacity to simply *know* the whereabouts, directionality and intentionality of one's social circle. This once more points to a new layer stacked upon the layers of our traditional, relatively static, cognitive maps that we use to orient ourselves in our environment: A dynamic layer consisting of the mobility patterns of our peers.

Four, like the users of Grindr, the girls are not at all concerned about today's post-privacy norms. They tacitly accept – and do not even mention – that social media corporations collect, aggregate and manipulate data in order to sell advertisements or personalise interfaces. They are very aware, however, of the publics they address when they are posting and sharing messages, and often photos, on platforms such as Facebook, Instagram and Snapchat. For them, Facebook is a public sphere populated, in principle, by each and everyone they know (provided they have 'met' them at least once) and not, conversely, by strangers. Instagram is a semi-public sphere with a more selective public consisting mostly of their peers (so family members and colleagues mostly excluded) and Snapchat a private sphere consisting of their close friends. Like the Grindr users, they considered, in other words, whether images would be appropriate or inappropriate in a particular context or appropriate at

all. Most users that I interviewed, in other words, actively curated their public image, mostly to avoid losing jobs or missing out on future job opportunities. This practice is a clear example of the 'for profit' logic of the entrepreneur of the self that is a dominant trait of the urban mode of production.

Five, and related to this, the girls mostly shared photos when they were *somewhere* – as one of the girls put it – that is: a place out of the ordinary like a party, dinner, festival, holiday and so on. They developed a simple routine to report such visits to their targeted publics: arriving at a special event or place, taking and sharing a picture (often a selfie or a group photo), checking in (through 'places' or 'add location'), tagging who they are there with. This once more illustrates today's relative ideological importance of leading highly mobile lives geared towards aleatory social and spatial encounters in a competitive environment (in this case competition for cultural capital), while hybrid space's affective register should be calibrated around the practico-neutral, optimistic and fun.

Six, the sheer number of exchanges in and through all of these apps and platform, as well as the resulting hyper-sequentialised forms of attention on at least two different focal points, should do to illustrate the manic restlessness that dominates our directly lived experience. Interestingly, however, the girls generally do not auto-report that they are burdened by, say, data fatigue, information overload, or attention disorders. In fact, they univocally pointed to one particular member of their little group who is seemingly incapable of making the rapid focal shifts needed to navigate the attention economy of hybrid space, implying that they themselves generally are. Within the context of a now newly hybrid metropolitan life, therefore, we can paradoxically observe both an intensification of the barrage of stimuli that *demand* our attention (since they are *not* unrelated to our everyday lives) and that we have to mentally cope with in a Benjaminian sense as much as the radicalisation of the Simmelian blasé attitude as a result of our newly found capacity to continuously foreground those stimuli that *do* matter (when space is empty, time stalls and life seems meaningless). This paradox results in the manic restlessness that is the dominant structure of experience of hybrid space.

In sum, we can observe both a different role and a structural transformation of the third space of public space (loosely defined as a space that is not the first space of the home or the second space of the factory floor or the cubicled office). The notion of public space, however, seems to be too old-fashioned a notion in the context of hybrid space. Hybrid public space, ultimately, is a social space that – enabled by our interfaces onto the intimate, private, semi-public and public spheres of our everyday lives – interpenetrates these other spaces as

much as it can be used to recombine our communicative, cognitive, and affective capacities with various publics and the relatively new (by means of chatter and curiosity).

Hybrid public space - of all of the spaces in the metropolis - has become the pre-eminent locus and engine room of the *double* social production that characterises the urban mode of production, as much as the stitch that keeps the seam between the fabric of social life and work life from unravelling as we live our lives in the urban operating system. As split subjects we both add to the use value of, and the common forms of wealth circulating in, hybrid space as much as our practices are aligned with the interest of capital and in tune with capitalist realism with a cybernetic twist (at least for the moment). Meanwhile, we use our mobile- and locative interfaces to make do in everyday life and get by in hybrid space.

We can also observe a structural transformation of public space. I argued that we have seen a shift from the vertical logic of the representational regime of aesthetics and politics to a horizontal – fully cybernetic – aesthetic regime of aesthetics and politics in public space. The aesthetic regime of public space enables – in the first instance and in principle – that each and everyone can have a stake in that what is common to a community, yet in the final instance the mobile and locative interfaces of social media corporations redistribute or police the sensible – i. e. that what is visible and sayable, and hence that what can *become* common to the community, in and through hybrid space. In the resulting social situation, hybrid public space becomes a differential space, and hence a compartmentalised space with certain publics sharing specific traits, interests or goals among themselves, while all of these bubbles of desire (for new social and spatial encounters) and/or spheres of intimacy (attuned to the practical and affective needs of this or that tribe) may never – or relatively rarely - converge, coalesce or jell.

7.2 Openings: Future research

In this last and final section I would like to reflect on two interrelated, yet distinct lines of inquiry that this dissertation has touched upon but need to be addressed by future research: The changing temporality of hybrid space and the changing role of chance in hybrid space.

"If", Simmel (2004 [1903]) once observed about metropolitan life the context of the industrial mode of production,

> all clocks and watches in Berlin would suddenly go wrong in different ways, even if only by one hour, all economic life and communication of the city would be disrupted for a long time. In addition an apparently mere external factor: long distances, would

> make all waiting and broken appointments result in an ill-afforded waste of time. Thus, the technique of metropolitan life is unimaginable without the most punctual integration of all activities and mutual relations into a stable and impersonal time schedule (p. 14).

For Simmel, the clock – and the 'stable and impersonal time schedule' it represents – served as the key integrative instrument, as well as the quintessential symbolic form, of the metropolis in industrial societies. It held together the fabric of social and economic life.

Let's imagine this scenario in the twenty-first century: What if all clocks and watches would go wrong in different ways? Not much – in all likelihood. Some deadlines might be changed; some meetings might be missed – but soon the social and economic fabric would be stopped from unravelling by a barrage of phone calls, social media updates and text messages. There would be no massive and lengthy disruptions - and 'ill-afforded' time wasting would instantly be made productive by the manic foregrounding of things that *do* matter.

Now, let's imagine the following scenario: What if all smartphones, tablets and laptops would suddenly switch off, and all interfaces turned black, even if only for an hour? What would happen to all the economic life and communication of the city? Well, to borrow a Heideggerian (1996 [1927]) idiom, our interfaces would cease to be 'ready-to-hand' equipment and would instantly appear as 'present-at-hand' handhelds, resulting in awareness of the thing in and of itself, which now becomes a conspicuous object embedded in a world of conspicuous objects from which the subject now finds itself distanced, at one remove (pp. 62-71). Due to our present-at-hand handheld, which now is a dead weight in our palms, we may notice the various ways in which the stitches holding together the seam between urban life and work life begin to unravel. Our universal opportunism is not claimed by anything in particular; the chatter has been muted and our curiosity has a hard time foregrounding anything that matters. Our cognitive maps no longer show the whereabouts of our peers and our intimate spheres become evermore porous. We would realise, in short, how dependent we have become on our mobile- and locative interfaces for a smoothly running urban operating system.

The disruption would no doubt be massive – but would it also be lengthy? I don't think so. I would argue that the urban operating system – as a mode of cooperation pivotal for the urban mode of production – would almost instantly reset the moment all of the interfaces blinkingly switch on. In stark contrast to the linearity of clock time, with its need for advance planning and its reliance on routine behaviour, the temporality of the urban operating system

seems much more associated with what Jencks and Silver's (1972) described as the *ad hoc* in the context of an avant-garde critique of modernist architecture (which is, not coincidentally, in line with the general trajectories from the 1960s to the present that I sketched in chapters 1-3) – or indeed: the opportunistic.

Previously (chapter 4), I cited Ling and Haddon's (2001) and Sutko and de Souza e Silva's (2011) argument that both the urbanisation of society and mobile- and location-based coordination may very well decrease the relative importance of clock time and increase the relative importance of the use of location in urban space to coordinate social and economic life. Mobile-based coordination results in a softening of time schedules because one's location ('I am here. Where are you?') determines the reiterative adjustments of the designated place and time to meet (see Ling, 2004, pp. 73–75); location-based coordination results in a further trivialisation of time schedules because "people may increasingly rely on the visualization of space rather than the management of time" (Sutko and de Souza e Silva, 2011, p. 815).

Throughout this dissertation we have indeed seen that our cognitive maps (in a phenomenological sense) can be seen as a visualisation of space; a visualisation with a dynamic network topology (nodes, locations, directionality, and mobility patterns) that enables iterative coordination, chance orchestration and desire synchronisation as we roam across hybrid space. This points to a new 'technique of metropolitan life', to paraphrase Simmel's citation at the top of this section, that is unimaginable without the most *flexible* integration of all activities and mutual relations into an improvised and personalised time schedule – a newly dominant temporal form, resembling *kairos*, which takes advantage of rights point in time, or opportunities, as they present themselves (see chapter 4-6).

Mobile-based and location-based coordination have, in sum, resulted in the relative dominance of place over clock time and of ad hoc improvisation over planning in the coordination of social and economic life. The interrelation between these newly dominant temporal and chance aspects of our daily lives in hybrid space, as well as its urban operating system, need to be further developed by future research.

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APPENDIX A: INTERVIEW GUIDES

I. Interview Guide Grindr Users

1. Since when do you use Grindr?
2. Why did you start using Grindr?
3. Did you – or do you - use similar applications or sites?
4. Could you describe the interface?
5. Could you describe how you look at the profile pictures?
6. Where and when do you use Grindr?
7. How often do you use Grindr?
8. How do you use Grindr?
9. Did your use of Grindr enable face-to-face encounters?
10. What kind of relationships does Grindr enable?
11. How do these usages affect the experience of the city, space and time?
12. Do you share photo's on Grindr?
13. What about privacy?
14. What about security?
15. Is there anything we didn't discuss?

II. Interview Guide Smartphone Usage Teenagers/Adolescents

1. Which Smartphone Applications do you use?
2. Which smartphone Applications did you use when you first got a smartphone?
3. Which Smartphone applications have you used from then until now?
4. Did you use Ping, and how?
5. Did you use Twitter, and how? Where and when?
6. Why did you start using Twitter?
7. Do you use WhatsApp, and how? Where and when?
8. Why did you start using WhatsApp?
9. Do you use Facebook, and how? Where and when?
10. Why did you start using Facebook?
11. Do you use Instagram, and how? Where and when?
12. Why did you start using Instagram?
13. Do you use Snapchat, and how? Where and when?
14. Why did you start using Snapchat?
15. Who are your friends or followers on these different platforms? And who do you follow?
16. Do you use functionalities like geotagging and social tagging on these platforms?
17. Would you post anything about your self?
18. What would you post and not post about your self? And what on which platform?
19. What kind of photos would you post and not post on those platforms? And why?
20. Do you sometimes think about your privacy?
21. Do you scroll back through your photo archive? And why?
22. Can you describe the conversations you are having – and the role of your smartphone - when you are seeing your friends IRL?
23. How do you – and others – combine face-to-face conversations and use of your smartphones?
24. Is there anything – or any app – we didn't discuss?

ENGLISH SUMMARY

This dissertation has broadened the definition of hybrid space, and hence the scope of any critical inquiry into the nature of hybrid space. Hybrid space has been mostly defined as a social space in which the ontological and phenomenological convergence of the bricks of the physical realm and the bits of the digital realm has been realised as a result of the proliferation of mobile and locative interfaces. Hybrid space, in this definition, is produced *with* and *through* the use of mobile and locative interfaces, and only *if* and *when* users open this or that smartphone application. Yet this is too narrow a definition. It analyses hybrid space by means of the narrative device of the *deus ex interface* based on an origin story in which the technological conditions of hybrid space – proliferated mobile interfaces and unscrambled GPS signals – emerged at the turn of the millennium. In this dissertation I have broadened the definition of hybrid space to the extent that it should also be seen as a product – and reproduction – of the urban mode of production, as well as a very specific way of life.

In Part I, 'The Social Production of Hybrid Space', I analysed the emergence of the urban mode of production and hybrid space from the perspective of, respectively, the technological revolution and the urban revolution. In chapter 1, I argue, while using Rainie and Wellman, that the main representation of hybrid space space should be described as networked individualism of the networked mode of production. This representation has three main aspects: the idea of the networked social operating system, the post-privacy-discourse and the post-boredom discourse. In chapter 2, 'The Urban Mode of Production', I argued, while using Lefebvre, Hardt and Negri, that today's mode of production emerged in the 1960s and became the dominant mode of production in the 2000s. The transition from an industrial to an urban mode of production – by way of the post-industrial or informational mode of production – and the shift from an industrial working class to an urban multitude entails that (1) the city rather than the factory becomes both the locus and the engine of production and that (2) the focus of production has shifted from objects on assembly lines to subjects in networks. The immaterial labour that is at the core of the urban mode of production feeds off, and feeds into, the common forms of wealth that circulate in the metropolis and the aleatory (social and spatial) encounter with that which is different that characterises city life, as it allows creative recombinations of communicative, cognitive and affective capacities.

I then argued, from the perspective of the lefebvrean triad, that the urban mode of production produces networked dividuals (rather than networked individuals) in, through and by means of hybrid space. Social and spatial practices take place in an urban operating system

(rather than the networked operating system); the dominant representation of space – its post-privacy transparency – enables a constant modulation or software-sorting in, and of, hybrid space intended to channel desires (anticipating wants and needs) into what you can want and may need under determinate circumstances, including your coordinates in hybrid space, your social standing or your spending power; and, the dominant structure of experience could be described as a manic restlessness induced by (1) the post-boredom promise of smartphones ('make the most of now') and its logic based on the principle of want, as well as (2) the self-direction, and temporal and spatial flexibility, demanded from labour working and living under precarious circumstances. Meanwhile, the seam between the fabric of immaterial labour and the fabric of urban life is held together, and stopped from unravelling, by the mobile and locative interfaces that enable us to navigate, and negotiate, the nomadic urban operating system.

In Part II, 'Representations of Hybrid Space: Networked Dividuals', I expanded the above-mentioned themes and arguments by conducting one case study into locative media art and one case study into the interfaces and algorithms of Foursquare. Both cases illustrate that the preferred way of life in the urban mode of production is hyper-mobile and geared towards aleatory social and spatial encounters in a competitive environment (in this case through games and the gamification of daily life *tout court*), while the directly lived experience of hybrid space should be practical, positive and fun – or at the very least not boring.

In part III, 'Bubbles Bursting with Desire, Spheres Teeming with Intimacy', I conducted case studies into the use of mobile and locative interfaces by teenage girls and gay men. In chapter 5, 'London Cruising', I analysed the ways in which gay men use Grindr, a GPS-enabled application to meet other gay men. I paid particular attention to the various ways in which Grindr enables specific types of social- and spatial interactions, spatial awareness and cognitive mapping, and lived experience. In chapter 6, 'Teenage Tweet Tribes', I conducted a case study into the use of mobile and locative interfaces by girls in their late teens and, ultimately, early twenties. I paid particular attention to the various social media applications they used to share their locations, activities and experiences with, and across, their various social circles. In doing so, I analysed along the lefebvrean spatial triad, with whom, and how, these girls stayed in touch while they moved through hybrid space.

NEDERLANDSE SAMENVATTING

De belangrijkste bijdrage van deze dissertatie is dat het voorliggende onderzoek de definitie van hybrid space heeft verbreed en aangescherpt en, hiermee, de analytische reikwijdte van het begrip hybride ruimte. De hybride ruimte werd voorheen vooral gedefinieerd als een sociale ruimte waarin een ontologische en fenomenologische convergentie had plaatsgevonden tussen de fysieke werkelijkheid en de virtuele werkelijkheid als gevolg van de proliferatie van mobiele en locatieve interfaces. In deze definitie wordt de hybride ruimte geproduceerd *met* en *door* een smartphone applicatie, en slechts *indien* en *wanneer* gebruikers zo een applicatie openen. Maar deze definitie is te eng. Het beschouwt en analyseert de hybride ruimte door middel van het narratieve instrument *deus ex interface.* Dit narratieve instrument is gebaseerd op een ontstaansmythe waarin de technologische condities van hybride ruimte – dat wil zeggen: proliferatie van mobiele interfaces en GPS-toepassingen – ten tonele verschijnen rond de millenniumwisseling. In deze dissertatie heb deze definitie verbreed door te wijzen op de verschillende manieren waarop hybride ruimte ook fungeert als een product – en reproductiemiddel – van de urbane productiemodus, en een specifieke manier van leven.

In deel I, 'The Social Production of Hybrid Space', analyseer ik de opkomst van de urbane productiemodus vanuit het perspectief van de technologische revolutie (de 'big bang' van 1972) en de urbane revolutie (van de 'jaren zestig'). In hoofdstuk 1, beargumenteer ik, al voortbordurend op het werk van Rainie en Wellman dat de belangrijkste en meest omvattende representatie (in fenomenologische en ideologische zin) van de hybride ruimte de volgende notie is: 'het genetwerkte individualisme van de genetwerkte productiemodus'. Deze representatie van de hybride ruimte omvat tenminste drie aspecten: Het idee van het 'genetwerkte sociale operating system', het post-privacy discours, en het post-verveling discours.

In hoofdstuk 2, 'The Urban Mode of Production', beargumenteer ik, voortbouwend op het werk van Lefebvre, Hardt en Negri, dat de hedendaagse productiemodus opkwam in de 'jaren zestig' (in plaats van na de technologische 'big bang' van 1972) en de dominante productiemodus werd in de 'jaren 2000'. Deze transitie van een industriële naar een urbane productiemodus – via de postindustriële of informationele productiemodus – en van een industriële arbeidersklasse naar een urbane multitude houdt in dat (1) de stad in plaats van de fabriek (of het kantoor) de belangrijkste locus en aanjager van productie wordt en dat (2) de productie zich niet langer focust op objecten op lopende banden maar op subjecten in

netwerken. Het is belangrijk hierbij op te merken dat de immateriële arbeid die ten grondslag ligt aan, en de kern vormt van, de urbane productiemodus zich voedt met, en voeding geeft, aan de gemeenschappelijke vormen van waarde die in hybride ruimte van de hedendaagse metropolis circuleren *en* de toevallige (sociale en ruimtelijke) gebeurtenis of ontmoeting met datgene dat verschillend is die zo kenmerkend is voor de stad, omdat het een creatieve recombinatie mogelijk maakt van communicatieve, cognitieve, en affectieve capaciteiten.

In deel II, 'Representations of Hybrid Space: Networked Dividuals', illustreer en analyseer ik bovenstaande thema's en argumenten door het uitvoeren van één case studie naar locatieve mediakunst en één case studie naar de interfaces en algoritmes van Foursquare. Beide studies illustreren dat de urbane productiemodus een hypermobiele manier van leven prefereert dat gericht is op het faciliteren van toevallige sociale en ruimtelijke ontmoetingen in een competitieve omgeving (in dit geval middels spelvormen en de gamification van het dagelijkse leven *tout court*), terwijl de ervaring van de hybride ruimte gestructureerd is rond het praktische, positieve en 'gezellige' (fun) – als het maar niet tot verveling leidt.

In deel III, 'Bubbles Bursting with Desire, Spheres Teeming with Intimacy', voer ik casestudies uit naar het gebruik van mobiele en locatieve interfaces door adolescente meisjes en homoseksuele mannen. Deze case studies dienen om voorgaande thema's en argumenten te illustreren en te verdiepen. In hoofdstuk, 'London Cruising', analyseer ik de wijze waarop homoseksuele mannen gebruik maken van Grindr: een rond GPS – en dus locatie – gebouwde applicatie die ten doel heeft homoseksuele mannen met elkaar in contact te brengen. Ik besteedde hierbij met name aandacht aan de verschillende manieren waarop Grindr specifieke vormen van sociale- en ruimtelijke interactie, perceptuele en ruimtelijke ervaring, en cognitieve cartografie mogelijk maakt. In hoofdstuk 6, 'Teenage Tweet Tribes', voer ik een casestudie uit naar het gebruik van mobiele- en locatieve interfaces door jonge vrouwen (in hun late tienerjaren en, uiteindelijke, vroeg-twintigers). Ik richtte mij hierbij op het scala aan sociale media applicaties die 'de meiden' – zoals ze zichzelf noemen – gebruiken om hun locaties, activiteiten en ervaringen te delen met, en doorheen, een verscheidenheid aan sociale cirkels. Gebruikmakend van de Lefebvreaanse ruimtelijke triade, analyseer ik aldus met wie, en hoe, de meiden in contact blijven terwijl ze door de urbane ruimte reizen in hun hypermobiele alledaagse leven.

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Robin van den Akker (1982) is Senior Lecturer in Continental Philosophy and Cultural Studies at Erasmus University College Rotterdam. He also is the academic program coordinator of the Humanities majors at EUC.

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Robin has written extensively on the digitization of everyday life and contemporary aesthetics and culture. As a member of ‘Het Filosofisch Elftal’ he has a regular column on current events in the daily newspaper 'Trouw'. He studied Social History (BA), Media and Journalism (MA) and Philosophy (MA) at the Erasmus University Rotterdam and Cultural Inquiry (MPhil, Distinction) at the University of Birmingham.

Publications related to this dissertation:

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