Arm chair activism: Serious games usage by INGOs for educational change

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ABSTRACT

The battle between educators and entertainers continue when it comes to gaming. While this is so, the edutainment battleground has expanded to include actors outside formal schooling agencies, namely International Non-Governmental Organizations (INGOs). These actors employ digital games with the aim to educate and activate towards specific social causes. These *serious games* are viewed to have tremendous potential for behavioral change through their interactive and persuasive aspects. This paper examines serious games deployed by certain prominent INGOs and analyzes the educative aspects of such new media platforms. What is revealed at the design, audience, and content level compel us to examine what constitutes as education through serious games. Here, education is seen as social marketing employing sensationalism, morality, and emotional capital to stimulate activism. Such games sustain the converted rather than create new understandings of complex social issues.

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INTRODUCTION

This is an era of leisure. Information is the new entertainment. As social media pervades daily

life with its constant micro-updates, it influences how we interact, process and act. The demand

for digital gaming is clear, with a market of 25 billion dollars in revenues per year (Susi et. al, 2007); what is less clear is the role it has in education and activism. The debate between education and entertainment is hardly new, with much written on this tension, birthing the concept of *edutainment* as a compromise to some, and a new breed of learning to others (Singhal & Rogers, 2002). Within this world, serious games (SGs) have sprung up, capitalizing on this platform of entertainment to communicate messages deemed pro-social, educational and meaningful (Bogost, 2007). This has made gaming more palatable amidst skeptics. Yet, it continues to create controversy in academia as seriousness, not enjoyment, is often equated with higher learning. However, if we step outside the institution of formal education, we see SGs harnessed by a range of new actors such as International Non-Governmental Organizations (INGOs). While several studies have been done on the implications of SGs in schooling (Garris et al., 2002; Gee, 2007; Ritterfeld et al., 2009), few have focused on such games by and for INGOs as an educative- activism tool.

Therefore, this explorative study will investigate the nature and process of INGO serious games to gauge its learning and activism potential. We seek to identify some of the features typifying serious gaming. We look into the range of SGs created for and by INGOs, the selection of information about social issues that INGOs include in the game design and their intent and mission. Therefore the overarching research question is explorative, *what is the nature and design of online serious games created by INGOs*? Three research sub-questions are:

1. What is the range of characteristics that constitute a SG?
2. What are the INGOs' intent, purpose and desired outcomes for SGs?
3. What are the key strategies employed in SG design to lead to activism?

Through triangulating of interviews with INGO staff, content analysis of the gaming platforms and auto-ethnography, we find that instead of critical learning and activism through SGs, we

encounter emotional manipulation, top-down pedagogy, and social marketing. We argue that in the design and deployment of SGs by INGOs, attention needs to be paid to the following:

1) Design –information is embedded as a key motivation for players and old institutional top-down pedagogical style prevails

2) Audience - the focus is on the already converted versus new members given that certain 'inside' knowledge is necessary to proceed, creating few novel learning opportunities

3) Content level – education takes the form of social marketing, leveraging on morality and emotion than on critical thinking to foster activism

While admittedly, this is a small sample and in no way represents all SGs employed by INGOs, it serves to open up ways to critically approach INGO serious gaming by offering a framework through the design, content, and audience focus. This paper intends to serve as a starting point for discussion on the nature of informal education through SGs as used by INGOs as it reveals assumptions instrumental in the construction of these new media platforms.

THEORETICAL FRAMEWORK

This theoretical framework is constructed around three core concepts, namely (serious) gaming, entertainment-education and social change. Considering that the analysis is exploratory, alongside the fact that INGO serious games per se have not been intensely researched by scholars, we present different perspectives academics and game designers have taken with respect to such endeavors.

Putting the 'serious' in Serious Games: In an attempt to grasp the core elements that compound SGs and to define the concept, Susi et al. (2007, p. 1) states that there are "as many definitions available as actors involved." The common ground is that these types of games are not created to be played primarily for amusement, although it does not mean that the entertaining

feature should be eliminated. As Ritterfeld, Cody and Vorderer (2009, p.6) point out, SGs are "any form of interactive computer-based game software that has been developed with the intention to be more than entertainment;" they are "entertaining games with non-entertainment goals" (p.11) and thus are different from casual games because they are educational and immersive. With more than 600 different SGs in the market, there is a need for a classification of types, according to intention of design. Therefore, there are educational games, games for health, for military training, games for social change, corporate and governmental. INGO games can be seen as a sub-category of SGs for social change.

Here, entertainment is seen as persuasive in reaching the public with meaningful content that can inspire a shift in mindsets and create behavioral change. However, a compelling argument is made where educational information needs to be transformed into "popular, pervasive, personal, persuasive, passionate, profitable and practical material" for it to be received through the gaming medium (Singhal & Svenkerud, 1994, p. 21). In the last few years, SGs have increased its market as it has become better at engaging audiences. Some scholars (Kelly et al., 2007; Prensky, 2001) have supported the idea that these types of games are an innovative and superior method to educate the public, in some cases proving to be more effective than other means of educational technologies or even traditional pedagogy. However, the looming concern of using entertainment for educating on social issues is that it would trivialize the message and interfere with learning. Developers often view the educational aspect as a 'burden' that they need to somehow carry when designing and packaging the game (van Eck, 2006).

Also, it is not always the case that the intended outcomes and objectives of a SG are explicit. Whilst in some occasions learning is the main purpose, sometimes the educational aims are more indirect (Dormann & Biddle, 2008). The trend in SGs is to set their objective to both

implicitly raise awareness and instigate change in attitude and behavior towards specific socio-political causes deemed significant to the organization deploying these games. This is usually achieved by attracting, engaging and sustaining the players in this game world and, through constructed narratives, fostering empathy for the characters and creating shared knowledge about the issue at hand, with the overall aim for personal involvement and activism towards the issue. Developed around learning objectives, SGs have the following properties: they are multimodal, interactive, have specific narratives that integrate the player, an option for social multiplayer use and a certain frame for gaming experience that bridge reality with fantasy (Klimmt, 2009). However, although there is a tendency to emphasize its particularities, SGs have more similarities with regular games than differences, since the element that is specific only for SGs is the connection between reality and fantasy. Hence, the key difference is that of purpose in design.

Further, we need to focus on the process of communicating these messages as well as the environment within which these messages are mediated to gain a better understanding of these games. Bogost (2007) asserts that the term 'serious games' is misleading, since the two aspects, 'serious' and 'games' are not necessarily exclusive. Instead, he alternatively proposes the concept of 'persuasive games,' suggesting that games might be persuasive if they are designed with the intention of expressing a specific argument or ideology. Moreover, the placement of an INGO game either on the organization's webpage or a separate website could provide further indication on its purpose. On the other hand, online games are usually placed on the official website of the respective organization. It is seen that people that enter these websites already have basic information about a certain issue, accessing the website with the intention of

acquiring more about that topic. Therefore, a large disadvantage of this digital platform is that they usually address people who are already familiar with the subject.

Game designers can set specific objectives, such as the sum of money donated for a cause, number of emails sent, number of petitions signed, number of stories written on the subject, number of times gamers click the 'tell a friend' button, or number of message board posts and events generated (Swain, 2007). The more general outcomes that influence the type of features integrated into the game design are knowledge-gaining, decision-support, civic engagement, campaigning, recruitment to causes and organizations, persuasion and attitude change. In order to change behavior, the gamer must be motivated, engaged in the game and the game narratives must influence the player's perception of the social issue. Thus, the goals of the game intertwine with the learning goals (Charsky, 2010). However, there are cases when "fun games are designed and instructional designers come in and suck all the fun out of it" (Kirkley and Kirkley, 2004, p.43). This happens they say, because a game is more than merely a text; it is an experience. Therefore, in order to serve the intended outcome, games created for social change have to balance the game structure that includes the educational elements and the dynamic play experience that engages the gamer.

In order for the equilibrium to happen, Swain (2007) advises on integrating subject-related experts in the design of the game. Nowadays, teams have been created in such a manner that they incorporate instructional designers, subject matter experts, game, interaction and graphic designers. It is worth keeping in mind that the important element of the learning environment in SG design is in the challenging tasks through the 'hooks' and 'choices' where players have an active role in the construction of knowledge (Dickey, 2007). As Gee (2007, p.2) mentions, well-developed SGs create a competing environment with "challenging but doable"

tasks. The challenges and competition are usually added in order to make the learning experience more pleasant and thus motivate the player to complete the game (Charsky, 2010). Hence, the player learns "new content, engages in higher order thinking and problem solving, makes decisions and interacts with others" (Ritterfeld et al., 2009, p.120). There are different kinds of hooks: action hooks (decisions about the mission of the game), resource hooks (such as different features of the character), tactical and strategic hooks (decisions taken by the character with respect to the resources and strategies employed) and time hooks (the temporal limits of the game) (Dickey, 2007, p. 77). Moreover, there are three types of choices, which refer to the number of options and decisions a player has to make before and during game play (Charsky, 2010): a) expressive choices (enhance the gamers' motivation to play through choice of avatars, location, music, etc. for generating higher empathy), b) strategic choices (affect game difficulty, level of play, allocated time or number of players, reinforcing attributes of interactions, roles and narratives), and c) tactical choices (address the player's skills on how to play the game).

Also, in order to develop 'fun' SGs, designers need to incorporate game interface, game mechanisms, game story and game play and thus game developers have to take into consideration the technological capacity of a game, its aesthetic presentation and the game design elements (Ritterfeld et. al., 2009). Special attention needs to be paid to the "narratives, characters and dialogue, humor and social interaction" (p. 58), all features having the potential of increasing the fun level of a game. In order for the game to be credible, Swain (2007) recommends that the information and background story presented in the game be kept as real and objective as possible and thus the message to come across as a clean and trustworthy one. Another important aspect of the design is the incorporation of community (Arora, 2011). Allowing the gamers to connect with one another and discuss about the game, through forums or

discussion boards or the possibility of sharing the game with friends keep the game in the memory of the player. Hence, when designing a SG, one has to pay attention to the formal features of games, as well as to investigate and connect it with the audience's 'offline lives' and take into account the context in which the game will be used. Nevertheless, there is no clear consensus amongst scholars in what concerns the primary features of SGs. Through this study, this paper intends to explore INGO SGs further, offering a rubric to help facilitate investigations on its design and impact on learning and activism.

Edutainment and Gaming: The area of serious games is embedded in the field of entertainment-education (E-E), edutainment, playful learning or (digital) game-based learning (Susi et al., 2007) and therefore, in order to better understand SGs, one must tap into the fundamentals on which E-E is built. Scholars have generally sided more with one term than the other, although the core elements are present in almost all the concepts related to the combination of entertainment and education. Game-based learning is considered an appropriate notion for SGs, as they have the potential of improving engagement, motivation, role-play and repeatability. As Charsky (2010) mentions, not achieving a task in a game-based learning environment is also a manner of learning due to the possibility of modifying the strategy and attempting once more to complete the mission. Moreover, digital game-based learning process is considered as the newest trend based on the changes in thinking patterns of learners today.

Having the same goals as edutainment, SGs extend beyond teaching facts and exercising the memory, as they encompass meaning-making and behavioral and attitudinal change with a focus on a "deeper learning in the context of an enjoyable experience" (Ritterfeld, Cody & Vorderer, 2009, p.4). Some scholars (Arora, 2006; 2010; Vorderer et. al., 2004) warn that when

games are developed with the educational content first in mind and then playability later, it can lead to the lowering of motivation, engagement and overall learning experience. For this purpose, edutainment, alongside with instructional computer games have been considered by some as the "worst type of education, drill and practice activities masked with less than entertaining game play" (Charsky, 2010, p. 177). Moreover, Resnick (2004, p. 1) considers that using this term implies that education is a "bitter medicine sweetened by entertainment" and also that the action of entertaining and educating seems induced by somebody else, such as schools, teachers, actors or studios. Thus, he supports the notion of 'playful learning' as it implies that the player himself does the action.

The growing interest in E-E exists due to its potential as both a theoretical and empirical approach to education, development and social change (Arora, 2012; 2012a). In the INGO field, E-E is "the use of entertainment as a communicative practice crafted to strategically communicate about development issues in a manner and with a purpose that can range from the more narrowly defined social marketing of individual behaviors to the liberating and citizen-driven articulation of social change agendas" (Tufte, 2005, p.162). It is seen that through discoveries and random encounters in the game, the player has more chances of understanding different opinions, points of view and learning lessons from unexpected scenarios. Bandura (2004) emphasizes the importance of using role models within these gaming platforms to disseminate information and ideas as they have a higher chance of instigating behavioral change, enhancing social mobilization and participation, and empowering marginalized groups to collective action. Overall, in the case of SGs, the optimal relationship between entertainment and education implies that entertainment functions as a sufficient motivator for information processing without distracting people from the desired knowledge.

Online Learning and Activism: Human perception and action are interconnected; people feel more empowered when they exploit tools that "extend their area of effectiveness" (Gee, 2005, p.9). Through games, players learn by facing problems that are gradually increasing in difficulty and apply to future problems what they have already learnt. Adding to this, it is argued that challenges should be doable and that the games should provide enough information 'just in time' and 'on demand' in order for the player to practice his skills and thus learn, though the game should supply only key variables for the learner in order for him not to be overwhelmed by the "complexity of the system" (p.12). These variables can be inserted through tutorials or tips inside the game world about how to master a certain task and needs to be essential information developers want the player to remember. Moreover, with games, the learner can exercise his skills and strategies in a protected environment where there are fewer risks though he needs to still feel the sense of authenticity and accomplishment.

Another principle is that humans think through experiences and not definitions or logical principles and that different people learn in different manners (Castells & de Jenson, 2003). Thus games are a good environment to allow the player to experience and customize the learning setting in order to use the best learning style. In addition, learning implies an extended commitment to the process, which can be enhanced by developing in the game world characters with specific identities towards which the players could feel empathy. Empathy, however, is built on strong emotions towards the characters and the storyline of a videogame. As scholars (Garris et. al, 2002) have pointed out, emotions are an important part in designing engaging games, whether they are casual or serious games. Affective learning focuses on creating an emotional experience that "motivates players and deepens learning" (Dormann & Biddle, 2008, p. 41).

Therefore, when designing a game, developers need to focus on recognizing the players'
emotions in order to "tailor the game responses to these emotions" (p. 42), because emotions
have an influence on decision-making, planning and action. Further, emotions play a crucial role
in behavioral change, including decision-making, planning and action. Therefore, aiming at
raising awareness and behavioral change, SGs make use of emotions that manage to actually
influence attitudes.

International NGOs, Social Change & ICTs: The proliferation of International Non-
Governmental Organizations (INGOs) started in the 1900s and increased substantively, with the
presence of more than 4000 INGOs within the last decade (Kamat, 2004). From initially viewed
as organizations on the sidelines of social policy, INGOs today are considered more as "catalysts
of change" (p.155). The optimism of INGO advocates is based on a general sense that INGOs are
doing 'good,' are not attached to the greed of the market and are generally neutral actors in social
policy and politics. INGOs often position themselves as agents of change by persuading and
mediating between various stakeholders. The functions of such organizations are: to explain their
main beliefs and principles, objectives and activities; to raise funds for their causes; to engage
volunteers and publicize their campaign outcomes; to raise awareness through advocacy
campaigns about targeted causes; and to work on influencing policy makers and mobilize the
public on certain social issues.

In recent years, new information and communication technologies (ICTs) available
facilitate and enhance the power of INGOs to communicate their causes and obtain support
(Arora, 2006; 2010). The impact of such changes has nurtured and shaped communication
campaigns of INGOs in reaching their public. There is an increasing interest in virtual activism,

as it enables and supports large scale campaigns across geographical distances, being cost and time effective (Arora, 2011). In order to deliver their message to the audience, INGOs have to use a variety of virtual tools and e-campaigns to fundraise, communicate, inform, mobilize, educate and enhance social change. They used to mobilize and coordinate activism that fosters behavioral change (Garrett, 2006), by, for example, lobbying through email, sharing photographs from a protest or broadcasting live events. As Bach and Stark (2004) argue, the number of online persuasive and pressuring actions, such as petitioning and letter writing are growing fast, as the Internet has the potential of supporting collective actions. Defined as actions taken by individuals or groups for a collective purpose, collective actions subscribe to the wider notion of online or virtual activism. Although there are many forms of collective action through the Internet, it appears that without great engagement for a certain topic, it is not translated into a greater involvement. In fact, such lower entry barriers and cost has led to a deluge of information that sometimes overwhelms the targeted user. Thereby, this information overload can actually reduce the effectiveness of the Internet as an information source. Therefore, SGs could be considered an innovative idea of using a non-mainstream channel (which, nevertheless, has a wide potential public) to disseminate information about social causes and reach the INGOs purpose of raising awareness and enhancing social change.

METHODOLOGY

We explore the characteristics and nature of select serious games by conducting a comparative multimodal content analysis of four game designs and their interfaces by two prominent INGOs. We focus on three areas to conduct multimodal content analysis: the (a) Game World (Table 1), investigating the narratives and storytelling, (b) Game Structure (Table 2), focusing on the

interactive design and (c) Game Play (Table 3), including the features of a game learning environment. Also, we triangulate content analysis of the game platform, interviews with the INGOs with auto-ethnography to gauge usability and engagement. As Aarseth (2003, p.3) points out, if the researcher has not experienced the game himself, he is "liable to commit severe misunderstandings."

In conducting expert interviews, the approach was to formally interview game experts and online marketing representatives from these INGOs to gain insight into the decision-making process. These were open-ended questions in order to go in depth about the subject of SGs and the strategies employed in the game design that fulfill the games' purposes. The questions were grouped in different categories, aimed at identifying some main components of the decisions involved in creating a SG. From general questions about the reason for choosing online games as a new media tool for communication campaigns and the motives behind choosing specific social issues, we then asked more specific questions on the design of their SGs, the frequency to which they update their game platform as well their self-evaluation processes of these SGs. While no doubt user perspectives are important to study, for this paper our focus is on the design of the actual game and its educative and activism implications. Overall, our findings propel an investigation along the lines of its design, content and audience level.

The reasons for choosing these INGOs are multiple. Firstly, they are both international well-known NGOs that work in multiple markets and thus have a large and diverse audience and high expertise in the development field. Secondly, they use new media applications and especially serious games, which are implemented directly on the organizations' official websites. Thirdly, the select INGOs focus on different issues (environmentalist and animal rights), allowing us to look for common patterns across different discourses.

INGO INTENT AND DESIRED OUTCOMES

The formal expert interviews with both INGOs revealed certain intent, purpose, desired outcomes and strategies. Both INGOs communicated that SGs are important marketing tools that address a varied audience, and, alongside other instruments of communication, assist in specific campaigns developed on focused social issues. The environmental INGO considers that SGs goals are to "explain and "call attention to a specific social issue", and "interact with the public and to encourage the gamers to share" their opinions. Also, they believe that SGs have "good viral potential." The Animal Rights INGO believes that SGs have an "important role in shaping the narratives and mindsets of our culture" as youngsters are learning more from videogames than books, even though both mediums in fact "tell a story."

Accordingly, the games are usually developed as part of a specific marketing campaign and target active players; whilst Animal Right games are specifically targeted at players between 13-21 years, the Environmental games address a wider audience instead of the "usual targeted young, online, savvy audiences." Interestingly, both INGO representatives stated that their aim was to target people that have no previous knowledge about the subjects depicted in the games. However, as the game analysis will reveal in the next section, specific features of the game design entail that the target group might actually be expected to be more familiar with the issues in the games than a regular first time user. Further, in terms of choice of social issues, the Animal Rights INGO claimed that "we try to focus on areas where there is greatest room for improvement" while the Environmental INGO stated that selection is "usually centered around a specific campaign which has appropriate funds and whose target audience has a potential to play games online." In terms of evaluating the impact of SGs, INGOs were not forthcoming with

details on their processes, although the Environmental INGO representative suggested that "success is measured against the objectives," as well as feedback from their target community. Both INGOs expect the "viral potential" to be maximized through the SGs and see it as a successful outcome which can "create a ripple effect as these young people repost, retweet, and forward the games, which are a fun way to spend a few minutes if you're procrastinating anyway."

To sum up, these INGOs perceive SGs as effective marketing tools that they use as part of large communication campaigns; SGs are seen as useful to raise awareness, explain the social issues, "tell a story," influence the mindsets and share information amongst many players. Both INGOs believe in the "viral potential" of these games based on its entertaining features and embedded motivating aspects and both INGOs do not appear to have structured ways to evaluate impact of SGs as of now. Lastly, it is interesting to note that they claim to target audiences who are unfamiliar with the select social issues that the games are designed to educate these audiences about.

OVERVIEW OF INGO SERIOUS GAMES

This study focuses on four different serious games that have been created and deployed by two prominent INGOs that we will refer to as the Animal Rights INGO and the Environmentalist INGO. The game sample contains four different serious games addressing different social issues as seen below (see Table 4).

SG1 - New Super Chick Sisters (Animal Rights INGO)
SG2 - Cooking Mama: Mama Kills Animals (Animal Rights INGO)
SG3 - Switch 'em Off (Environmentalist INGO)
SG4 - Face the G8 (Environmentalist INGO)

SG1: New Super Chick Sisters: was designed in 2009 as a part of the 'McCruelty: I'm Hating It' campaign against the McDonalds corporation. Using the well-known videogames Super Mario Bros characters, the INGO developed a parody version of Mario and Luigi through which they accuse McDonalds for not reacting to the mistreatment committed by its American and Canadian chicken suppliers and not adopting the Controlled-Atmosphere Killing (CAK), which the Animal Rights INGO argues to be a more humane manner of slaughtering poultry. In this game, Nugget and Chickette, two baby chicken sisters venture to rescue 'Princess Pamela Anderson' (Baywatch actress and Playboy model) who is kidnapped by Ronald McDonald (the mascot of McDonald). Ronald McDonald has taken the princess to torture, alongside thousands of chickens, for his 'unhappy meals' (a word game of the 'Happy Meals' children's menus at McDonalds). The player is encouraged 'to help free her now!' This SG was launched right before the New Super Mario Bros Wii release, so as to create a connection between this event and the game where the two Mario brothers are portrayed as interested in rescuing the princess. However, the famous videogames brothers are depicted as not being able to save Pamela Anderson because they are too engaged in promotional and marketing related activities, thus implicitly signaling a disapproval of their 'commercial-oriented' behavior. The game has five levels during which the player, who initially witnesses the story of the kidnapping, chooses his character (between Nugget or Chickette) to begin his rescue mission. The levels, entitled 'Worlds,' are modeled after the Mario Bros games with, for example, a typical outdoors level, an underwater one or a 'Super Mario Galaxy' stage. In the fourth level the character travels through a desert whilst in the fifth and final 'world' he reaches the play area of McDonalds, which represents the real life playground for children from the McDonalds restaurants. Similar to all games from the sample, the navigation system is basic: the player controls his character with the

help of the arrow keys. Throughout the game, the player has a pre-established number of seconds for each level to complete the task and he has to find the McDonalds flag in the game and replace it with the Animal Rights INGO flag whilst avoiding 'doomburgers,' pricking 'McFries' and, in the end of the game, Ronald McDonald himself. In order to earn more points, the player has also to free as many chickens as possible as he explores the levels. The main characters Nugget and Chickette, are constructed as mirror images of Mario and Luigi. Amongst the positive characters are Princess Pamela Anderson, depicted with a pink dress and tiara. On the other hand, there is the villain, Ronald McDonald who is portrayed as overweight, with messy hair, running make up, a butcher's knife in his hand and an evil laughter.

SG2: Cooking Mama: Mama Kills Animals: This game was released in 2008, before the American Thanksgiving holiday and the release for Wii of a new series from the "Cooking Mama" collection. Developed as an unauthorized parody of the casual online games produced by Majesco, the purpose of this game is to accuse the Majesco recipes of being too dependent on animal products, and also to draw attention on the general killings and mistreatment of turkeys in the US and Canadian slaughterhouses. The INGO demands Majesco to create a new version of Cooking Mama that contains only vegetarian dishes, encouraging gamers to become vegetarian. However, the aim of the game to attack Majesco is not straightforward, as the player is not given any further details about the Majesco "Cooking Mama" game series or the recipes they introduce in their games. Thus, the gamer is expected to have previous knowledge of the original Majesco series or the INGO discourse and campaign against Majesco. The player, acting as Mama, is in the kitchen as she needs to prepare the Thanksgiving feast that involves a stuffed turkey with gravy. Following a recipe built in the game structure and working entirely with the mouse, the

player goes through three levels with ten short sub-levels to prepare the turkey. For each sub-level she has approximately 15 to 20 seconds to finish the task, and in order to gain more points, she needs to be as violent as possible, by slashing, cutting and ripping the turkey. According to the game design, the bloodier the hand, the more points the player scores for her performance. Regardless of the final score of the player, in the end of the game a fourth hidden level is revealed under the message, 'Thanks to you, Mama had a change of heart.' Therefore, the game implies that the player's attitude has changed and has persuaded the Mama character to become vegetarian. At the bonus level, 'Mama loves animals,' the player has to prepare a vegetarian tofu recipe. In the extra level "What Mama Never Told You," information about slaughterhouses is depicted as being known by the mother, who decides not to share these cruel facts.

SG3: Switch 'em Off : This SG was developed in 2009 by the Environmental INGO. According to their website, 'dirty power stations are polluting our atmosphere, causing climate change and global warming. Switch them off as fast as possible to save our planet!' Therefore, the mission of the game is simple: the player has to shut down as many power plants as possible in the time limit given. There are six levels increasing in difficulty: while the first two levels are located in a forest, levels three and four take place in the arctic and the last two levels take the player on an island, with tropical trees, a local village, and fish in the sea. Both the ranger and the villagers appear to be angry at the situation, namely the appearance of more coal power stations, as their environment becomes destroyed; 'the trees from the forest are drying and the fish from the ocean are dying' as stated in the pop up box at this level. The player has to click the switch off sign in order to shut the power plants down. To this task, the game adds two time limits: a counter clock that provides the time frame of the level, meaning that the player has to 'survive' for a number of

seconds (thirty seconds in the first level; up to two minutes in level six); and a pollution level

limit, that increases according to the appearance of more power stations. The 'villains' of the

game are the coal power plants that appear in great number in natural environments. Although

they are the cause of pollution and are personified as evil (with sharp teeth and big black eyes),

they are not connected to any real life company, but rather represent the entire coal industry.

SG4: Face the G8: This game was part of the INGO campaign for the G8 Summit that took

place in July 2009 in L'Aquila, Italy. Eight of the richest and most powerful country leaders in

the world (United States of America, Japan, United Kingdom, France, Germany, Italy, Russia

and Canada) engaged in discussions with the purpose of committing to keep the global average

temperature rise below two degrees Celsius in order to prevent future disastrous effects on

climate change. The simulation game parodies the real life meeting with the player acting as a

fictive nine leader present at the Summit. Thus, the gamer needs to take decisions about policies

regarding the environment and the economic crisis, presented as inter-connected. Unlike the

previous three SGs that are action games, 'Face the G8' is focused on the process of decision-

making. The mission of the player is to choose between possible solutions for the agenda items:

energy security, poverty and development and global economics crisis. For this, he receives

information and alternatives that he needs to choose from and recommendations from his

Advisors based on market research and opinion polls. However, due to the game structure and its

limitations in the amount of information that can be displayed, one can observe that this SG,

alongside the others in the sample, implies the existence of a certain a priori knowledge of the

subject from the player's side in order to fully comprehend the game and be able to complete the

tasks. Also, the player has the opportunity of 'foreseeing' the future, 'fifty years after that fateful

day in July 2009,' to learn how his decisions have affected 'the world of people that live in this future.' Depending on the actions taken by the player in the meeting of G8, a short thirty seconds video is displayed with a child recalling the impact of the decisions on his society and, in particular, his family and friends. The graphics of the serious game are inspired from the South Park animated serial. In comparison with the other SGs here, which have limited to no possibility for the player to customize his character, here the character's head can be a headshot of the player.

In conclusion, the decision of using simple graphics is deliberately taken in order to create a more educational platform across all INGOs. In order to engage the player and develop commitment towards the social issue, these SGs exploit brands and popular stereotypes to enhance emotion and thus deliver the message. There are stringent time limits imposed for each game level and the nature of information provided is more subjective in nature.

CRITIQUE DIMENSIONS: DESIGN, AUDIENCE, & CONTENT

As pointed out in the theoretical framework, to create behavioral change through SGs, the player needs to be engaged through new content and learning. There is common acknowledgement that there needs to be sufficient room for decision-making and higher-order thinking for these games to sustain interest. While scholars such as Dickey (2007) points out a range of hooks and choices that enable this, there is less consensus on what are the primary features of SGs. It is indeed challenging to create equilibrium between organizational interests with gaming interests. While Resnick advocates for random encounters to foster a wider perspective on a social issue, there are organizational pressures to market a single idea to stimulate activism. Hence, how does Swain's proposal for information objectivity and trustworthiness balance with the institutional

agendas for disseminating a particular perspective on a social issue? Further, while there is no doubt that affective learning is essential to create empathy with the characters and social issue, how does one differentiate this from emotional manipulation of the player to facilitate a predictive behavior? Are there really opinions generated or beliefs reinforced? This section juxtaposes the theoretical framework against the INGO intent and strategies and the nature of game design. The analysis below is framed along the following dimensions as it is seen that game design, audiences, and gaming content are essential areas of concern, particularly on its means of educating audiences on issues of social change.

I. Design Level

Where information is the Prize: There is a conspicuous choice by INGOs for the educational over the entertainment aspect of the game. This is revealed through the game structure and graphics being limited and linear, offering the player little to no narrative choices and few possibilities to personalize the game world. These two variables, narrative choice and personalization as stated in the review enhance engagement. Instead, these interfaces are constructed to handhold the player through a single narrative and role-play. A good example is with the 'Cooking Mama' SG2 where there is no choice for Mama but to reform and become vegetarian through the embedded game design where all players by default become converts at the end of the game as they reach the final stage of 'Thanks to you, Mama had a change of heart' and 'Mama loves animals,' where she gets to prepare a tofu dinner. Also, all four games repeatedly underlie the social issue at the expense of being redundant. These games are loaded with messages and information factoids on the cause at hand. While on the INGO websites, there is a claim to present the player with a complete, accurate and factual depiction of the social issues, in practice, such information is deeply subjective in its language and content. For

example, embedded in the design of 'Switch em Off' is that power plants are the main cause for climate change and global warming with few sources as evidence nor is there a challenge for the player to think about energy alternatives that are the core of this debate. Or for instance, in 'Face the G8,' for the player to move ahead, a choice needs to be made between 'secure cheap oil', 'finance green grids' or 'clean-up transport, save jobs'. However, the last two are the only viable solutions offered to the player to successfully complete the game. While understandably, games need to simplify complex information to fit the gaming format and assumptions are often embedded, it comes at the cost of reducing rich debates into a simple 'good-evil' and causal argument. Thereby such SGs cannot claim to foster higher and critical thinking amongst its audiences.

The ratio of play time versus information acquisition is highly skewed, making this less a game and more an online tutorial. For instance, in the 'Mama Kills Animals' game, there are 15 to 20 seconds for the player to finish each level, which add up to approximately 3.5 minutes of play, whilst there are three bonus videos on turkey slaughterhouses each being 1.5 minutes long and four text boxes with information about turkeys that requires additional reading time. Additionally, to move to the next level in the game, *information serves as a prize*. The assumption that the player is motivated by information on social issues is in-built into the design. These games position information as a 'treat' and an engagement hook as seen in this introductory call, "are you game for finding out more about key conservation issues? If you are, then go right ahead and indulge yourself!" (e.g. SG4). In this information age where knowledge is accessible with a simple click of the mouse, these games continue to be programmed with information serving as a prime incentive within these gaming worlds. Interviews with INGO actors reveal that their intent is to first engage their audiences and provide games that have "good

viral potential." However, given the above design choices, this is less likely to engage and entertain and instead, serves as a more conventional online method of information dissemination. Overall, this section reveals the tension between the ideal of SGs as platforms for participatory, interactive and higher-order thinking against classic top-down pedagogical approaches to prime players on specific social issues, influencing design.

II. Audience Level

In some worlds, Pamela Anderson is the princess: The fact that information on social issues is the prize connotes that this is a self-selective process, targeting players who are already interested in the cause. Hence, the goal for SGs here is not attracting new clientele but sustaining and facilitating existing members. This is contradictory to the INGO interviews where they claim that their goal is to target new players with little previous knowledge on the chosen subject. For example the 'New Super Chick Sisters' game positions Pamela Anderson as a princess who is in need of being rescued. Considering the dominant media image of Pamela Anderson as a Playboy model and Baywatch actress, a regular player with no previous knowledge of her association with animal rights campaigns and her committed membership would not be able to see this relevance and could in fact view this as a trivialization of this issue with her presence. We see this 'insider' status again in the 'Face the G8' game where certain a priori knowledge is needed on complex policy issues to move ahead given the limited time constraints. Overall, this implies that contrary to their intent, INGOs target players are 'insiders,' with familiarity on the social issue and campaign. This is problematic given that these games are driven by information as the incentive. Hence, these gaming platforms serve as instruments to sustain converts rather than attract new players to the cause.

III.   Content Level

Mother does not know best- Sensationalism vs. education: Serious games are ideally meant to educate and engage through critical thinking and dialogic reasoning. Decisions made on this interface are meant to come from new insights on an issue so as to proceed further into the game. However, what is found is that there is heavy focus on stimulating emotion over thought as a means to activism. While in the literature emotion has been linked positively to empathy and motivation for the player, there is a thin line between affective learning and emotive manipulation to facilitate action. In these games, sensationalism and morality is employed through the exaggeration of game characters and demonization of corporations. Guilt is used strategically to convert players into believers. For example, 'Mama Kills Animals' was released just before Thanksgiving and its explicit portrayal of mothers as violent and distrustful appears more manipulative than educative. Here, players are forced to take on the role of being violent with the turkey with its point system for aggressiveness, and then go through a redeeming stage where they become vegetarian by default. Also, framing of these discourses are along the lines of 'good' and 'evil' through the employment of rhetorical strategies (e.g McDonalds as 'doomburgers' in SG1) or visual strategies (factories with fangs and frowns in SG3). Information dispersal is through short videos presented as 'bonuses' after the completion of each level. However, the nature of information is deeply subjective as for instance, in the SG1 game where videos were undercover operations in different US slaughterhouses with titles ranging from 'Meet Your Meat,' 'Butterball's House of Horrors' or 'North American Turkey Slaughter.' These videos show turkeys dying in different conditions, being mistreated and killed with inhumane methods. This is accompanied by comments such as '15000 birds killed daily in violent processes', and 'live birds tortured by employees,' with no attempt to appear balanced.

The language gives no room for second thoughts and activism is propelled based on guilt, as for instance in their call, "Chickens who are killed by McDonald's suppliers have their throats cut while they are still conscious. You must save them from this cruelty!" While there is a chance that these emotive rhetorical devices motivates the player into action, there is less of a chance on higher cognitive learning taking place given the nature of such information.

CONCLUSION

Serious games by INGOs are touted as a novel way to educate and activate. However, reaching equilibrium between the organizational, educative and gaming interests continue to persist as these case studies demonstrate. While current literature emphasizes higher-order thinking and choices for decision-making to foster engagement, in practice, this sample provides few options in the design and content front and perpetuates top-down information dissemination. Also, while the literature promotes objective information for trustworthiness, the nature of information here is deeply biased. Here, SGs are more social-marketing instruments than tools for learning. Less new knowledge is created and more old information is circulated amongst the already converted to sustain niche communities bound by social causes. And indeed, while research supports affective learning to promote empathy, we need to position this against the idea that emotion can be counter-productive to critical thinking. As these cases demonstrate, sensationalism and emotional manipulation can be powerful and possibly easier tools to mobilize audiences to action, this comes at a cost of reflective thinking. It begs the question of whether SG platform affordances are less inclined to such educational pursuits as institutional pressures for campaigning drive its design and content. Perhaps we need to disassociate education with activism as one could stimulate activism successfully without necessarily enhancing critical

thinking. For future research, the following needs to be investigated, not just from the gaming and institutional point of view, but from a player's perspective:

- ➢ The role of emotion in SGs and its relation to critical learning and activism
- ➢ The nature of information on SG platforms and its linkage with organizational interests and campaign agendas
- ➢ The type of audiences SGs attract and sustain

Overall, what constitutes as a successful SG is dependent on whether we view these tools as educational or social marketing instruments.

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