

CO-CREATING "SECOND LIFE": AN ANALYSIS OF COLLABORATIVE CO-DESIGN PROCESSES OF INTERACTIVE VIRTUAL ENVIRONMENTS IN COMMUNITY-AUTHORED SOCIAL VIRTUAL WORLDS

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Co-creating Social Media and Virtual Worlds

New Media, with its developing technologies and various social interaction platforms, radically affect the way modern people observe and understand the world, find ways to express themselves and communicate their messages with others. With the introduction of global social networks (Facebook, Twitter, Digg, Blogs, etc.), and so-called "Web 2.0", digital communication became driven more by the meaningful interaction between people, as producers and users of digital messages. In this wide-ranged digital media landscape of today, Virtual Worlds offer users to share 3D virtual spaces, make friends, collaborate and network, start up businesses, develop new in-world media, create learning environments, go dancing, make love, create sites for art, music, and other cultural experiences. Developments in digital communication technologies, emergence of Social Media and shifting of digital media landscape towards a more participatory platform are not only the driving forces behind the implication of new and more comprehensive technologies to the market, but they also have significant effects on the ways people communicate, interact, participate and create communicative content in social contexts

In today's *interactive, hypertextual* and *networked* digital media landscape, media production and consumption became interweaved processes, contrary to the era of mass media where production of media information depended on well-established broadcasters (Lister et. al, 2003; Schrøder et. al., 2003; Schrøder, 2009; Castells, 2009; Kaplan and Haenlein, 2010). Today, average users of social media, (who were once defined as the passive 'audience') are well capable of expressing their ideas, stories, ideologies, etc. by creating archives of videos, images, sounds or 3D virtual artifacts, then sharing these with their peers through their online social networks, getting in dialogue with their target audience and receiving their feedback almost immediately. This new way of social participation, that was made possible by the convergence of media technologies and changing social structures, has also caused a shift towards a more politically active public (Schrøder, 2009); primarily by the help of rapid spread of the Internet, shrinking of the digital divide by decreasing prices of technologies and wireless connection networks (Castells, 2009). Today, millions of individuals from around the world are collaboratively building new communication platforms, modifying existing platforms for their communication needs, and creating new media artifacts to spread through their (often global) social networks.

Throughout this paper, the intention is to argue how the recent economical and social contexts of Social Media and Virtual Worlds has led to a shift in their usage patterns, their social functions, and how community authored virtual worlds, as an emerging technology, provide distinctive features that could support the new participatory communicative culture. Instead of the conventional understanding of the *passive audience* that awaits for the centrally-produced messages produced by the exclusive media producers, Social Media offers a more participatory media landscape, where users can collaboratively create, share, distribute and discuss the media content (and the platform itself, in such software that allows open-code development). User-generated content gradually became one of the defining characteristics of Social Media, as it allows individuals to represent themselves (their interests, lifestyles, emotions, ideologies, creative work, etc.) and be socially-present in a global communication environment.

While it is possible to look at this phenomena through the specific medium and observe how it allows participation (as Schrøder, 2009 analyzes "conversational media" within three media

types), looking at the transformation of the concept "audience" and how it gradually became a collective creative force and "*took charge of its communicative practices*" could also help (Castells, 2009). In most cases, this creative intervention (of the so-called *audience*) can even be so motivating for users that they might "*manipulate all technology at their disposal to achieve the ends they desire, many of which will have an effect on the economy that is not desired by the designers.*" (Castronova, 2005) The growing tendency in media users to participate in social shaping of their communicative practices by creating and sharing content is very critical for the purposes of this study; as it also relates to Virtual Worlds as a developing social media platform where users can design 3D virtual artifacts/spaces and co-create new forms of social interaction.

With the growing importance of user-generated content, we now know that it is not only the consumption of media content that concerns the *audience* (?) of today's Social Media. Users from around the world, also with an increasing rate of penetration in underprivileged areas, are getting online and contributing as the creative workforce of the emerging culture. Whether we call them as "Creative Audience" or as "Co-designers of Media", one thing is clear that the forthcoming versions of social media platforms will be largely evaluated by how much they allow user participation, creativity and sharing.

Collaborative Co-Design of Second Life: Why is it also an Architectural Problem?

Community-authored virtual worlds, such as Second Life, offer a whole new experience of sharing a (virtual) space by providing their residents a world ready to be explored and built (a virtual *tabula-rasa*) by millions of people at the same time; a world where people can design their own avatars to represent themselves, create virtual objects and share with others, and use these artifacts to design virtual environments that accommodate multiple avatars to explore and interact with. It is often stated that the economies of these virtual worlds, and the behavioral patterns of its consumers, are significantly similar to those of the real world economies (Castronova, 2005). Furthermore, these virtual economies now began to affect the real life markets, and they have already penetrated into our daily lives by the common technologies we use for both work and leisure.

Richard Bartle (2004) defines virtual worlds as "*shared or multi-user, persistent virtual environments that are simulated/implemented by a computer (or a network of computers)*". Although his study is not focused on social worlds in which user-generated content is possible, Bartle's emphasis on virtual worlds being *places* relates his theory to Bridges and Charitos' (1997) ideas on the use of architectural knowledge for designing virtual environments. Following Bartle, when virtual worlds are (contextually) defined as "*places*", which "*accommodate human activities, such as navigation, interaction and communication*", it is reasonable to consider design of a VE as an *architectural problem* as well (Bridges and Charitos, 1997; Benedikt, 2008). At this point, communication and social interaction in these virtual environments become subjects of design, as they are expected to be collectively created, used and evaluated by the residents of the virtual world. The interactive nature of social virtual worlds such as Second Life also makes them valuable platforms for designers to meet, collaborate and co-design the world's content.

Purposes of Research

This project intends to analyze factors/affordances of virtual worlds that support and/or hinder collaborative content-generation within the social world of *Second Life*, and aims to outline major characteristics of user-based design process that shape/affect user creativity in community-authored social virtual worlds. In this context, the term *content* consists of various types of interactive virtual designs that could require a creative collaboration: i.e., including graphic design, product/object design, interior/architectural design, area/region (urban) design. Research questions in focus (and their second-level considerations in parentheses) are:

- What methods do (professional) designers of Second Life employ to collaboratively co-design immersive virtual spaces to facilitate virtual social interaction for different purposes?

(How do these methods resemble/differ from real-life design methods and theories on collaborative creative work?)

- How do specific categories of Virtual World affordances on designers' communication, collaboration, design and 3D object-building affect the structure (and efficiency) of design processes of these types of environments?

(How does Virtual Worlds designers' participation in collaborative co-design activities are effected by: experience in VWs, MMORPGs or 3D modeling software, professionalism, context of design activity, immersion and avatar-based interaction, etc.?)

Within this context, *user-driven innovation* is intended to include innovative user practices within virtual worlds to find new ways of interaction and participation, rather than innovation concerning real-life companies/organizations' collaborations with their users for testing/marketing purposes. Here, major focuses on the level of observation that I intended to explore are:

- Collaborative design processes, and their structures
- Affordances of Second Life that support the development of user-driven innovation
- Limitations of Second Life that hinder the development of user-driven innovation
- Areas of development that are required for more effective collaborative design processes in community authored virtual worlds

Proposed Methodology

At the current stage of the research, Grounded Theory Methodology (GTM) is the most fitting method that can describe the variety of case-studies and the applied observation/categorization methods. There are several reasons why I believe developing a Grounded Theoretical Model, which reveals critical categories that concern collaborative co-design processes in Second Life and explores their relations among each other in the social context of the virtual world:

- Grounded theory assumes the researcher to explain a social situation not by verification of existing hypotheses, but adding a new dimension to the existing knowledge (Stern, 2007).
- GTM aims to study and theorize social processes by examining categories of activities that shape real people's experiences in real social situations (Dey, 2007; Bryant and Charmaz, 2007; Stern, 2007).
- It is also stated by GTM theorists that, instead of a big case-study with a large number of participants, series of smaller related studies with different contexts could help discovering the social reality with the actors' point of views (Stern, 2007).

I believe, generating a theoretically supported and empirically grounded theory of 'how virtual worlds are co-created by residents would fit with the purposes of this research project, since the field within which we study collaborative creation lacks established/mature theories on user-driven innovation and co-design. Considering the current situation of the research (described below), it makes sense to use the categories that emerge from the data during the two pilot studies, to explore the overall paradigm:

Exploring the Field: Two Pilot Studies

First, design and building processes of a virtual laboratory (Metrotopia) built in Second Life for a series of experiments and observations on digital communication, social interaction, collaborative design and education in virtual worlds was observed. The analysis, so far, indicates that Second Life comprise various affordances to facilitate object-based collaboration in design processes, and allows designers to develop context-specific design methods by using related design resources (inspirational or material) situated within the virtual world (i.e., building 3D models, shopping for supplies, outsourcing design tasks).

In "*Communication and Design in Virtual Worlds*" Workshop, during 3 weeks, 15 international students were lectured on semiotics, design and communication, and asked to design group projects in Second Life for representing their communicative messages in fictional contexts. By observing students' collaborative design processes, their ways of communication, and the methods they use to collaboratively design virtual objects and environments, it is aimed to understand the critical aspects of virtual collaboration in learning situations (for novice users).

Two pilot studies also showed that certain aspects of social and interpersonal communication actually resembles real world behavior, while some problems that arise during the collaborative design processes are caused by the lack of necessary information (i.e., orientation, sounds, non-verbal messages, movement skills) that the participants would have normally needed during a similar real life activity. Although these do not necessarily show that Second Life designers are working in exact similar conditions as real life professionals (in terms of market conditions, production constraints, costs/benefits, etc.), it is important to note that users are more comfortable with features that they are familiar with in their "real" lives; and they try to come up with imaginative methods to cope with the problems they face by using what they can get from the technology. Considering these observations, and the theoretical views presented above, it is possible to hypothesize that the more a virtual world allows its users to participate and co-create, the more innovative its users will get to achieve a more satisfying experience. In this respect, it is critically important for virtual world developers to understand how their residents could be encouraged to collaborate and participate in the world's design.

Conclusions

As digital communication technologies develop rapidly, it is inevitable that the platform developers are constantly working on more captivating and graphically-satisfying virtual environments and more interactive and immersive virtual experiences. In a (near) future, where most of the digital information will be accessed and used through immersive 3D virtual environments, the question of how these 'information spaces', or 'Spaces of Flow', (Castells, 2009; Stadler, 2006) will be designed for providing better access and a more immersive experiences becomes a tricky one; because it requires a multidisciplinary vision and a flexible theoretical sensibility. One purpose of this study is to analyze how designers of virtual worlds communicate and co-design the world's content, in order to understand the motivations, methods and processes behind these creative social activities.

Community-authored virtual worlds, such as Second Life, offer a whole new experience of sharing a (virtual) space by providing their residents a world ready to be explored and built (a virtual *tabula-rasa*) by millions of people at the same time; a world where people can design their own avatars to represent themselves, create virtual objects and share with others, and use these artifacts to design virtual environments that accommodate multiple avatars to explore and interact with.

Ultimately, the aim of this study is to observe how these virtual environments facilitate the emerging online culture of participation and collaborative creativity, and to generate a theoretically grounded analysis of how Second Life designers collaborate, communicate and co-design virtual artifacts/spaces, in order to understand on which aspects of user-driven design processes should virtual world developers stress on if they intend to emphasize user-generated content. In a world of rapidly developing visualization technologies, increasing accessibility rates, and the emerging global network of people willing to participate and create, I believe, theorizing how developing communication platforms can offer better immersive virtual environments that allow their users to participate, collaborate and co-create, is important for both communication and design research fields.

References

- Bartle, R.A., 2004. *Designing Virtual Worlds*. New Riders. California.
- Benedikt, M.L., 2008. Cityspace, Cyberspace, And The Spatiology Of Information. *Journal of Virtual Worlds Research*, Vol.1, No.1, July 2008.
- Bridges, A., and Charitos D., 1997. On Architectural Design In Virtual Environments. *Design Studies*, 18; 143-154.
- Bryant, A. and Charmaz, K., 2007. Grounded Theory Research: Methods and Practices, in *Handbook of Grounded Theory*, ed. Bryant A. and Charmaz, K., pp. 1-28, Sage, London
- Castells, M., 2009. *Communication Power*, Oxford University Press, Oxford.
- Castronova, E., 2005. *Synthetic Worlds: The Business and Culture of Online Games*, The University of Chicago Press, Chicago.
- Dey, I., 2007. Grounding Categories, in *Handbook of Grounded Theory*, ed. Bryant A. and Charmaz, K., pp. 167-190, Sage, London.
- Kaplan A. M. and Haenlein M., (2010), "Users of the world, unite! The challenges and opportunities of social media", *Business Horizons*, Vol.53, Issue 1.
- Lister, M., Dovey, J., Giddings, S., Grant, I., and Kelly, K., 2003. *New Media: A Critical Introduction*, Routledge, Oxon.
- Schrøder K., Drotner K., Kline S. and Murray C., 2003. *Researching Audiences*, Arnold, London.
- Schrøder, K., 2009. Audience Theories, in *Encyclopedia of Communication Theory*, Littlejohn S.W., and Foss K.A., Sage, CA.
- Stalder, F., 2006. *Manuel Castells; The Theory of the Network Society*, Polity Press, Cambridge.
- Stern, P.N., 2007. On Solid Ground: Essential Properties of Growing Grounded Theory, in *Handbook of Grounded Theory*, ed. Bryant A. and Charmaz, K., pp. 114-126, Sage, London.