An Exploration of Social Movements in Virtual Worlds

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Abstract

Virtual worlds have the potential to change the way in which organizations and social groups organize. Virtual worlds are large scale IT artifacts that enable millions of people to interact with one another through avatars in online three-dimensional worlds. One important social phenomenon which has moved into the virtual world is the social movement. Social movements are large, informal groups of people that aim to pursue common goals and bring about social, cultural or political change through collective action. Using netnography, an online form of ethnography, this research aims to understand how social movements are impacted by virtual worlds. The social movement studied in this thesis is a lesbian, gay, bisexual, and transgendered (LGBT) group which has over six thousand members in World of Warcraft (WoW). This thesis presents our explorations of virtual world social movements through five original articles.

1. Introduction

Virtual worlds, are computer-generated virtual spaces (Nardon et al. 2012) where millions of people can interact with each other via avatars (Castronova 2005; Shen et al. 2009; Suh et al. 2011). They enable people to be someone else or to take on multiple personalities at the same time (Castronova 2001). Virtual worlds are transformation technologies (Wasko et al. 2011), which enable globally distributed work, project management, online learning, and real-time simulations (Schultze et al. 2010). Virtual worlds are nonphysical spaces, where individuals, groups, and organizations can interact (Saunders et al. 2011), assume an embodied persona (Schultze 2010) and engage in socializing, competitive quests, and economic transactions with other globally distributed players (Schultze et al. 2007). In 2011 it was estimated that the total number of global people was around 1.4 billion across all virtual worlds (KZero 2011).

Increasing computer power and the growing penetration of broadband Internet have allowed for the steady growth of virtual worlds (Suh et al. 2011). Current research has shown that by the end of 2011, 80 per cent of active Internet users and Fortune 500 enterprises participated in some form of virtual world.

Among the most well-known virtual worlds today is Second Life (SL), a 3D virtual world where users can socialize, collaborate, and conduct business using voice and text chat through personal avatars. Another kind of virtual world is known as Massively Multiplayer Online Games (MMOG), the most well-known being World of Warcraft (WoW) (Bainbridge 2010; Schultze et al. 2007). MMOGs are attracting scholarly attention as an important social phenomenon (Assmann et al. 2010; Castronova 2006; Goh et al. 2012). Games such as WoW offer alternative worlds where social functions, learning, and the development of social skills can be practiced in a virtual environment (Davidson et al. 2009). Virtual worlds such as SL and WoW have implications for education, business, social sciences, and society as a whole (Messinger et al. 2009).

Virtual worlds have changed the way in which organizations communicate and conduct business (Schultze et al. 2010; Schultze et al. 2007). Users of virtual worlds create an avatar which offer the affordances of "real" bodies (Schultze 2010), and enter a highly immersive world where they can interact visually, verbally, and textually with other avatars. Virtual world users find the avatar experience far more appealing than using Facebook and Twitter, where you can only read what others are doing (Nah et al. 2011; Wasko et al. 2011). The virtual world itself is like an ecosystem, with social activities happening in this highly immersive world. This ecosystem is often altered by the designers (Nardi 2010; Roquilly 2011), which means that users (or avatars) "living" within this ecosystem must act within the technological configurations imposed on them by those designers.

2. Motivation

An important social phenomenon which has moved into the virtual world is the social movement (Blodgett et al. 2010; Blodgett et al. 2011). In modern history people may have banded together with others to pursue common goals and achieve social or political change. This collection of people is called a social movement. Social movements are an important means of bringing out cultural and political changes through collective action (Staggenborg 2011). Some movements have responded to threats or violence, while many seek opportunities to claim new rights. Some movements seek political and economic liberation, while others fight for lifestyle changes. Some social movements create formal organizations, others use informal networks, while some others use more spontaneous actions such as riots (Goodwin et al. 2003). Studying social movements gives people new understandings of human diversity, human action, and more generally, social interactions. Social movements also provide knowledge about politics, as movements are often a main source of political conflict and change (Goodwin et al. 2003).

Social movement literature has, in recent times, began to investigate how social movements have used the Internet. The Internet has played an important role in initiating and steering activism (Postmes et al. 2002) and as movements take advantage of the Internet's capabilities

in growing numbers, more social protest will take place online (Leizerov 2000). This study is focused on social movements which occur within online virtual worlds. Previous studies of social movements have examined how movements connect "through" the Internet; however, virtual worlds also allow people to connect "within" the Internet (Wasko et al. 2011), which provides a new set of issues for social movements. This enables a more engaging experience when compared with two dimensional environments (Nah et al. 2011). In the virtual world, there have been virtual protests in SL (Blodgett et al. 2010; Robinson 2008), in WoW and various other virtual worlds (Blodgett 2009; Blodgett et al. 2011; Castronova 2003). These examples substantiate the need to study how social movements are using virtual worlds.

Virtual worlds have enabled intense human interaction, and have become powerful social platforms which enable millions of users worldwide to gather, produce massive economies of their own, while giving rise to virtual communities and complex social relationships (de Andrade 2009). It is clear that the Internet has changed the way in which social movements mobilize, recruit new members, organize their strategies and campaigns, and affected movement outcomes. We still need more understanding of how collective identity processes work when social movements are online (Blodgett 2009; Clark et al. 2003). In particular, Blodgett (2009) emphasizes that greater synthesis is needed between social movements, game research, and computer-mediated communication as there is no clear understanding of what the technology means for social movements.

As new forms of technology-mediated social interaction are emerging (Boostrom 2008), we believe research into social movements in virtual worlds is timely. Virtual worlds have become the focus of attention for social researchers both in gaming and non-gaming virtual worlds on the premise that social behavior is easier to observe in computerised environments, and is comparable to behavior in the real world. Virtual worlds can be used to examine theories of sociology, culture, psychology, and human interaction (Bainbridge 2007). An increasing number of people will use virtual environments, so they should be studied as important phenomena in their own right (Castronova 2005; Castronova 2006), while virtual world games can teach us about human society as well as human behavior, innovations, and deviance (Mortensen 2008). In line with the call to theorize the IT artifact by Orlikowski and Iacono (2001), we see a need to further theorize about virtual worlds, and in particular how they impact the people who use them. This leads us to define our research problem and research objective.

Research Problem: There is little understanding of what virtual worlds mean for social movements.

Research Objective: To explore how social movements are impacted by virtual worlds.

3. Scope of this Study

This study is situated with the domain of virtual worlds, defined by Bell (2008), as "*a synchronous, persistent network of people, represented by avatars, facilitated by networked computers*" (p. 2). This study will be positioned in WoW, the most popular MMORPG (Ducheneaut et al. 2006; Meredith et al. 2009) which in 2010 reached over 12 million players

globally (Blizzard 2010). Players create a character (an avatar) and can interact with thousands of other players in the same world to adventure together or fight against others.

WoW was selected over SL as a field site for several reasons. Users have failed to embrace SL (Bateman et al. 2013), and research has shown that 13 million registered avatars did not return to SL after their first visit (Clark 2008). SL has even been referred to as being "dead" (Livingstone 2011). In contrast to this, WoW has a large user base and it is easy to identify active participants. Schultze and Rennecker (2007) argue that virtual world games represent a legitimate arena for IS research. Virtual worlds are of interest to IS researchers for both their business and social aspects (Messinger et al. 2009). Games such as WoW offer alternative worlds where social functions, learning, and the development of social skills can be practiced in a virtual environment (Davidson et al. 2009).

In our initial explorations of WoW, we discovered that social movements were using WoW. For example we found many religious movements, including make-believe religions which only exist in WoW. Cabiria (2008) explored how virtual worlds can act as safe havens for gays and lesbians, and other marginalized people where they can develop positive coping skills, and explore their identities. Blodgett et al. (2007) examined gay and lesbian issues in virtual worlds, and propose that further research is required to further understand the diversity of users in virtual worlds.

Further extending the studies of Cabiria (2008) and Blodgett et al. (2007), the social movement used for this study is a LGBT movement which aims to create awareness for LGBT issues, both in game and out. LGBT has over 6,200 members (players) in WoW and has over 15,000 avatars/characters (it is possible for one player to add multiple characters). LGBT consists of one main group and several smaller groups. The movement has been profiled in a number of gay and lesbian magazines and in a prominent WoW blog website. LGBT is a global social movement with members from many countries. LGBT also maintains a website with discussion forums. LGBT holds many regular activities inside WoW such as an annual pride parade with floats, model competitions, dance parties, group photographs, and events for Valentine's Day. They also organize members' meetings in the physical world, and have had meetings in Australia, Canada, and the United States.

4. Methodology

The philosophical stance of this study is interpretive which generally attempt to understand phenomena through the meanings that people assign to them (Myers 1997). This research looks at LGBT in WoW and uses a qualitative research method called netnography, which is a form of ethnography for studying online communities (Kozinets 2010; Myers 2013). The collection of data in netnographic studies involves participant observation and interaction with community members (Myers 2013). The sources of data used in this thesis are presented in Table 1. In total, the researcher spent over 1,600 hours immersed in WoW over all stages of this research.

Source of Data	Nature of Data Collected	Quantity Collected
Participant Observation	Movie screen cams from movement activities.	Several hours of movie files collected. At least 50 screenshots.
Discussion Forum Posts	Discussion posts from movement website.	128,773 posts dating back to 2006.
Chat Logs	Chat logs from movement in-game chat channels.	Approximately 1.5 years worth of chat logs.
Social movement's website	Textual information relating to background information about the movement and rules of membership.	Approximately 20 pages of information.
WoW Patch Notes	Documents the changing configurations of WoW.	Patches dating back to 2006. 114 patches.
Other WoW websites	Textual information relating to aspects of WoW gameplay.	Not documented but estimated to be over 100 pages of information
Informal conversations	Conversations with WoW players about game play.	Not possible to quantify

Table 1: Data sources used in this thesis

Article I formed the methodological chapter of the thesis and presented the netnographic approach which was applied to Articles II, IV, and V. It introduces the nature and applicability of this emerging method for conducting research on and within virtual worlds. Article I provides some unique aspects of studying virtual worlds, followed by a description of the netnographic method. Following this, the article presents a modified version of netnography, more suitable for exploratory studies, and illustrates this with examples of our interactions with LGBT. The article also discusses using images as a data source, and using Leximancer as a qualitative data analysis tool.

5. The Conceptual Framework

A thesis by publication must encompass an overarching conceptual framework (see Figure 1) which consists of three main stages. Each stage generated a research question, used different theoretical lenses and data collection methods, and builds upon the research presented within the preceding stage.

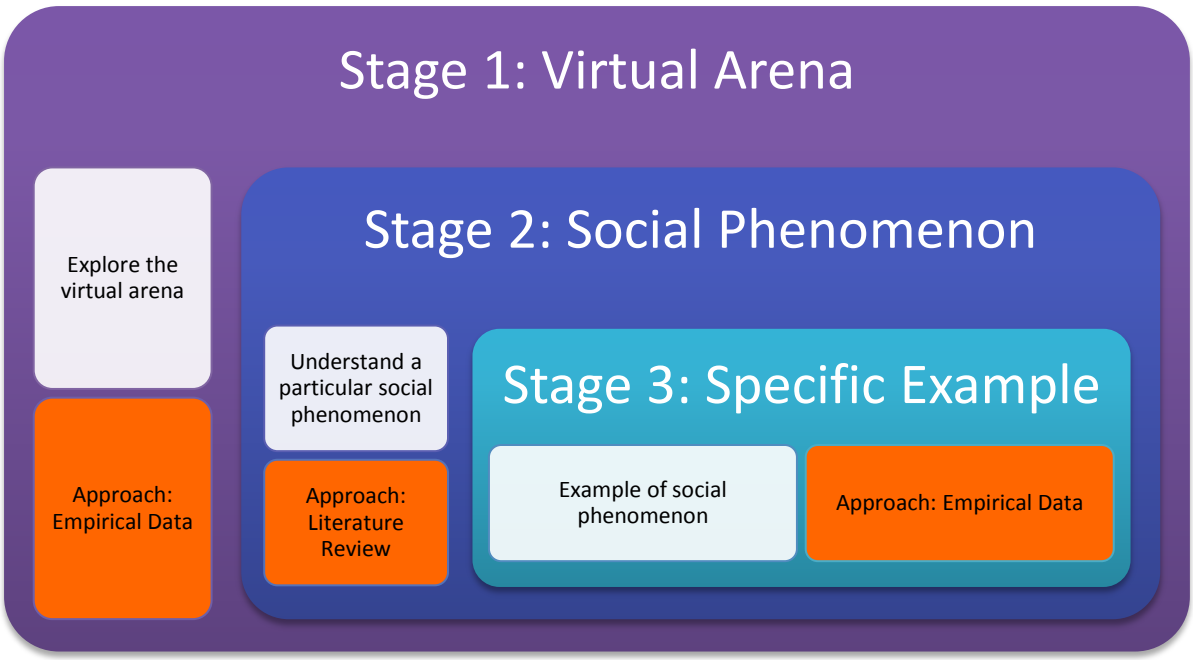

Figure 1 Conceptual Framework

5.1. Stage 1: Exploring the Virtual Arena

Initially we entered the virtual world with no preconceived ideas or hypotheses. The purpose of this stage was simply to explore WoW. After some time interacting with the general player population we eventually arrived at a research question which centered broadly around player experiences. The research question in this stage became:

Research Question 1: how can we explain differences in player experiences?

To answer this research question, and to gain a theoretical understanding of how players use WoW, Chaos Theory was applied which was able to assist in the understanding of MMORPG environments. Chaos Theory was selected for this study because it can aid in understanding how player experiences differ over time, and from player to player. Chaos Theory originated in mathematics and can be defined as "*the qualitative study of unstable aperiodic behavior in deterministic non-linear dynamical systems"* (Kellert 1993). Chaos involves the study of phenomena exhibiting a sensitive dependence on initial conditions. Therefore, if any parameter in a system is slightly changed, very different results can occur (Pickover 1994). Chaos can also be thought of as how something changes over time (Williams 1997). The existence of chaotic systems is now well established in mathematics, ecology, meteorology, and similar non-social science fields (Gregersen et al. 1993).

There are a few examples of Chaos Theory used in IS. Dhillon and Ward (2002) used Chaos Theory to discover patterns in complex quantitative and qualitative evidence for the nature of IS. McBride (2005) reviewed organizational literature relating to Chaos Theory and formulated a number of key concepts which should be incorporated into an interpretive framework for the analysis of chaotic systems. This stage of the research applies the framework of McBride (2005) to an analysis of the chaotic nature of WoW using two examples: *questing* and *raids*. The first example, questing, will show how Chaos Theory can

apply to solo players in WoW. The second example, raiding, is where multiple players must interact together in order to achieve a common goal.

The key finding in this stage was; despite the rules of WoW, and the limitations of its programming, the introduction of human players into the game extends the limits of the game and introduces a range of play experiences. Social behavior is often hard to predict and hence virtual worlds such as WoW may be inherently chaotic. We were able to demonstrate the blending of a technical ecosystem with social dynamics of players, which often provides unpredictable or unimaginable outcomes. During this stage, the researchers became very familiar with WoW. The findings of this stage are presented in Article II. We became aware that the limits of the game can become extended by introducing social behavior into the game. This further motivated us to explore what other aspects of the game may be extended beyond what the designers intended.

5.2. Stage 2: Understanding Social Phenomenon

During stage 1, we became aware of social activities taking place in WoW. One of those social phenomena was social movements. Before we explore this specific social movement (LGBT), we first have to conceptually understand the phenomenon of social movements in virtual worlds. We began to explore conceptually the issues in the study of virtual world social movements as there has been little research in this area. Previous research has claimed that social phenomena in the virtual world can be used as a proxy to studying social phenomena in the real world. However, virtual worlds have some important characteristics which make them quite different to the real world. Therefore, further understanding of how virtual world technologies, avatars, and the unique nature of virtual worlds impacts social phenomena is in need of attention. To address these issues, we presented a research framework designed to provide a roadmap for conducting research into the area of virtual world social movements.

To gain a conceptual understanding of the phenomenon, we chose a literature review approach to explore the concepts of the phenomenon under examination. To do this we explored three main issues of social movements: *mobilization and recruitment* of individuals (Edwards et al. 2003; Jenkins 1981; McCarthy et al. 1977; Staggenborg 2011; Tilly 1978); *social movement organization* (Pichardo 1997; Scott 1990; Tarrow 1994); and *strategies and campaigns* (Goodwin et al. 2003; Staggenborg 2011; Tilly et al. 2009). We then compared these against three characteristics of virtual worlds: *re-worlding, re-embodiment,* and *multiperspectivality* (Kozinets et al. 2009). The research question in this stage became:

Research Question 2: What are the key issues when studying virtual world social movements?

Our key contribution of this stage is the development of a research framework (Table 2). Using these dimensions, nine areas of importance are presented at the intersection of these dimensions which illustrate the main issues when studying virtual world social movements. The area VIII, for instance, is concerned with how re-embodiment affects the strategies and campaigns employed by a social movement, for example altering an avatar's appearance as a

strategic tactic for a movement campaign. To gain a complete understanding, we extended our conceptual framework to other genres of virtual worlds for a more comprehensive exploration of this phenomenon. The research framework is presented in Article III.

		Virtual Worlds		
		Re-Worlding	Re-Embodiment	Multiperspectivality
Social Movements	Mobilization & Recruitment	I	II	III
	Organization	IV	V	VI
	Strategies & Campaigns	VII	VIII	IX

Table 2 Research Framework from Article III

5.3. Stage 3: Specific Examples

After we explored the virtual arena (stage 1), and conceptually understood the social phenomenon (stage 2), we explored specific examples of the research framework presented in stage 2 within the virtual arena presented in stage 1. First we set out to explore the organizational differences between real world and virtual world social movements. Our research question became:

Research Question 3: How do virtual worlds affect the organization of social movements?

To explore this research question theoretically, we applied New Social Movement Theory (NSM) because of its fit (Myers 2013) with the nature of LGBT. NSMs break from earlier industrial era movements that focused on the redistribution of wealth, and now focus on concerns for forms of alternative lifestyles (Habermas 2008; Pichardo 1997). They promote direct democracy, self-help groups, and collaborative styles of social organization (Pichardo 1997). LGBT had no grievances over wealth; rather they are interested in creating awareness for their cause. NSM tactics tend to remain outside of normal political channels and use disruptive tactics to influence public opinion. They also employ pre-planned and highly dramatic forms of demonstration, often with costumes and other symbolic representations (Tarrow 1994). LGBT has annual pride parades, and attendees often use alternative methods of representation such as lighting and sparkling effects (spells).

NSMs emphasize action in the cultural sphere or civil society as the arena for collective action (Cohen 1985; Melucci 1989), while stressing the importance of strategies which promote self-determination and autonomy (Rucht 1988), rather than conflicts over material resources. Our interpretive analysis of LGBT with NSM as a sensitizing theory enabled us to find a number of differences and similarities when this theory is compared against real world and virtual world social movements.

It was during this engagement with LGBT that the researcher became aware of a constant struggle between the technical ecosystem (WoW) and the social activities occurring within it. Often LGBT had to make changes to its structure or processes as the virtual world it was acting within evolved. We set out to explore how the social and the technology co-evolve. As

the technology is altered by its designers and new configurations implemented, this sometimes forces the social groups acting within the technological ecosystem to co-evolve with the technology. We found that LGBT was forced to change the way it acted within the virtual ecosystem multiple times over the course of this study. This encouraged us to formulate a new research question.

Research Question 4: how do the technological artifact (the virtual world) and the social world (the social movement) co-evolve?

To explore this research question, we needed to combine NSM with a theory to help us explain the co-evolution. NSM is a theory which helps us to understand the dynamics and structure of social movements, but does not explain how they can be enacted through technology. We required an approach which would allow us to examine changes to the configuration of WoW and what impact they had on LGBT. To understand the technical evolution of the virtual world, it is necessary to examine how its configuration has changed over time. As WoW is constantly changing as the designers of the game release patches, we had to understand *how* the system has changed over time. Hence we used the approach known as Biography of an Artifact (BoA) (Williams et al. 2012).

Williams and Pollock (2012) advocate understanding the biography of an IS by following it through time and space. Their approach attempts to study an IS over multiple frames of analysis, through extended longitudinal studies (i.e. ethnography). These biographies compare systems at different moments in the lifetime of the system, and capture linkages between different actors in time and space. To get an understanding of how the virtual world has evolved over time, we analyzed patch data. WoW regularly releases patches which change some nature of the game. Each time a patch is released it also comes with patch notes which describe the changes to the system. The BoA approach recommends using Actor-Network Theory (ANT) as a theoretical lens by following not only the system, but also the actors which use the system.

Therefore, to illustrate the co-evolution of the social and the technology we will also utilize ANT (Callon 1986a; Callon 1986b; Callon 1999; Latour 2005; Law 1992; Walsham 1997), which is an appropriate tool for socio-technical research (Callon 1986a), and has been advocated for use in Information Systems research by Walsham (1997). ANT can be considered a theory for explaining (Gregor 2006) and therefore will be used to explain how the social movement has been impacted throughout the biography of the system. ANT is a useful means for data analysis in this study for its ability to examine the co-evolution of society and technology (Callon 1986a), and for understanding a systems biography, or how a system is shaped over multiple time frames and settings (Williams et al. 2012).

Using ANT, we can analyze how the LGBT actor-network was created, and how it is maintained over the evolution of WoW. When a patch is released, we can follow actors through the network and determine how they are affected by the release of the patch. ANT also enables us to explore the power structures as Blizzard asserts its authority over players of

WoW, and enables us to explore the impacts to these power struggles between the technical and the social.

The outcome of this study is an understanding of how the technological artifact itself (WoW) and the social phenomena (LGBT) co-evolve over time. Our study has some important implications for business as new forms of organizing are enabled by virtual worlds. In this final stage, we used empirical data from our interactions with LGBT, to fully explore this social phenomenon. The findings of this stage are presented in Article V.

5.4. How the Papers Fit the Conceptual Framework

In the preceding section we presented the conceptual framework applied to this study. It is also necessary to discuss how each of the original articles presented in this thesis fit with the conceptual framework (Figure 2), alongside a summary of each stage of this research and its contributions (Figure 3).

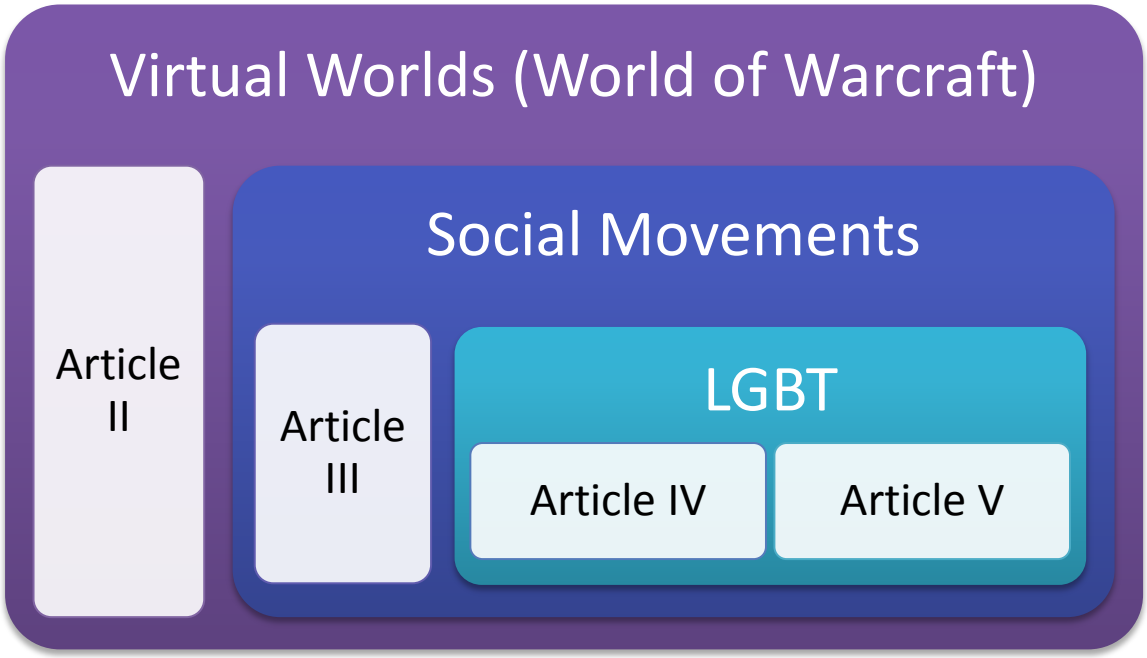

Figure 2 How the original articles fit the conceptual framework

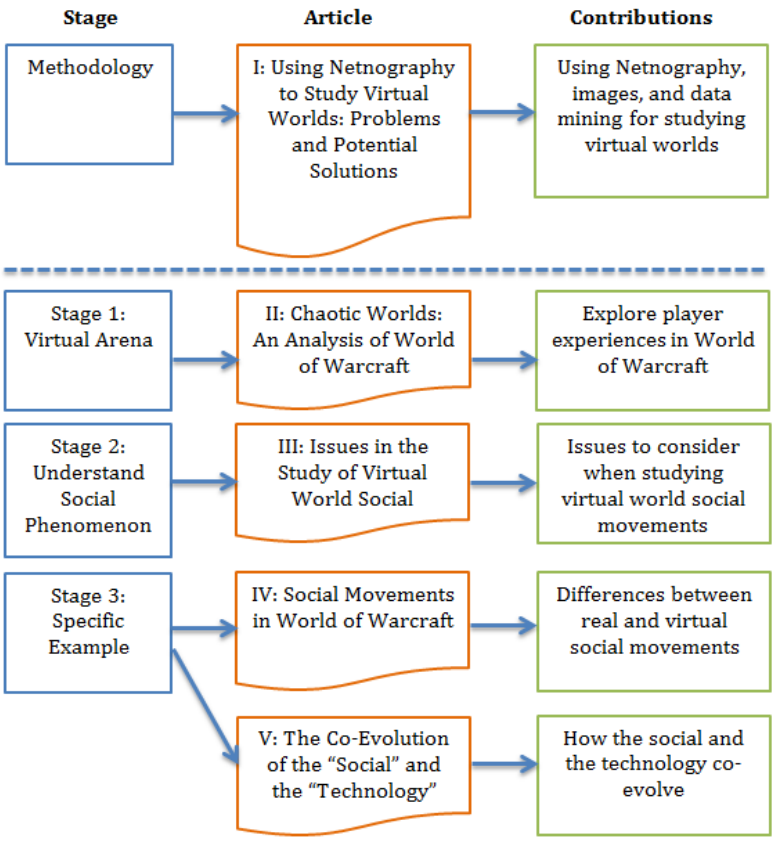

Figure 3 Stages, articles, and their contributions

6. Conclusion

6.1. Contributions to Theory

This study has made multiple contributions to theory. In Article II we suggested that Chaos Theory (Gregersen et al. 1993; Kellert 1993; McBride 2005; Pickover 1994; Williams 1997) can be applied to a virtual world such as of WoW. Although WoW has rules and is defined by the limits of its programming, the introduction of human players into the game extends the limits of the game and introduces a range of play experiences. Interactions in WoW take many forms which we presented are inherently chaotic, in the sense that the game experience is significantly different from player to player. Every player who logs into WoW is likely to experience the game differently from any other player and ultimately arrive at different outcomes.

In Article III, we examined the issues as social movements move into the virtual arena to provide a greater understanding of the relationships between social movements and virtual worlds. The multi-dimensional research framework was designed to address the major issues relating to the study of virtual world social movements. We believe our proposed framework is a potential starting point for researchers wanting to understand the relationships between social movements and virtual worlds.

In Article IV we further explored some of the key issues which were addressed in Article III. Specifically, we have looked at the organizational aspects of NSM and applied this theory to a virtual world social movement. We found a number of differences and similarities when this theory is compared against real world and virtual world social movements.

In Article V we further explored virtual world social movements by combining our analysis with ANT and a BoA approach. This article has contributed to the theoretical understanding of virtual worlds. It examined the concept of co-evolution by addressing the issue of how changes in technical configurations of virtual worlds impact the social fabric of activities which occur within these technological ecosystems. This study contributes a theoretical understanding of how the technological artifact itself (WoW), and the social phenomenon (LGBT) co-evolves over time. We saw what changes in technology, or limitations with technology caused LGBT to have atypical social movement characteristics, such as the way methods of expressiveness became an issue during the parades. For organizations which operate within virtual worlds, these findings could begin to shed some light on the issues faced when operating within virtual worlds, and suggests that organizations need to be willing to co-evolve with any technological configurations imposed on them.

6.2. Contributions to Methodology

This study has adapted the netnographic approach to studying new forms of social media. The key contribution to this was the addition of a preliminary stage, which sets out to explore the virtual arena which is under investigation. This helped us to understand the context of the virtual arena under investigation, as is recommended by Urquhart and Vaast (2012). Virtual worlds are an entirely new form of online media, and to understand the social dynamics of these worlds, it is important to first understand the broader context of the virtual world (Boellstorff 2012).

We also contributed methodologically in two other ways. Firstly, we provided further examples of using images as a data source (Andrade et al. 2009), which is not something that IS researchers are familiar with. Secondly, we advocated for the use of Leximancer as a data analysis tool, which is useful for automatically coding large data sets. We provided examples of how we have used multiple data sources and analysis techniques to tell the story of virtual world social movements.

6.3. Contributions to Users of Virtual Worlds

Our study may have some important implications for business as new forms of organizing are enabled by virtual worlds. For example, we can generalize some of our findings to organizations operating within virtual worlds. In fact, Greenpeace (a social movement organization) has protested the killing of penguins within WoW. For organizations which operate within virtual worlds, these findings could begin to shed some light on the issues faced when operating within virtual worlds, and suggests that organizations need to be willing to evolve if they want to continue operating in these virtual environments which may constantly be evolving.

6.4. Contributions to Social Movements

We saw what changes in technology or limitations with technology have caused the social movement to have atypical social movement characteristics, such as the way methods of expressiveness became an issue during the parades. In particular, Articles III-V discussed some important issues for virtual world social movements. If a social movement wants to begin using virtual worlds to advance their cause, it is necessary for the movement leaders and members to be aware of virtual world characteristics which they could use to their advantage, or be aware of characteristics which could potentially be a hindrance to their cause. Social movements also need to be aware of the type of social movement their might use, i.e. a social virtual world, or a gaming virtual world, as depending on the type, different limitations or affordances might affect the movement.

6.5. Contributions to Game Designers

We concluded in Article II by emphasising that we do not consider chaos to be a negative aspect of virtual worlds. In fact, it is chaos which makes MMORPGs fun and enjoyable for players. Slight changes in initial conditions for a character ensure that every time the game is played the possible end points can be vastly different. We suggest that this may have contributed to the success of WoW. The practical implications of this paper is that it suggests developers of MMORPGs should ensure games remain fun and interesting by ensuring that game experience differs between players and characters each time the game is played.

6.6. Summary

Finally, we can conclude that social movements, no matter what their cause, are finding new methods to express themselves or to raise their concerns on a local or global scale mediated by technology. Humans have always found ways to express their concerns, and we have reached the era where virtual worlds and social media are being used as tools for social movements. Going forward, we expect to see a greater number of social movements using a broader range of technologies for demonstration or raising public awareness for their causes. We might also see virtual social movements beginning to have an influence on policy makers, or have stronger influences on the real world equivalents of these movements. As Snow et al. (2003) say, we live in a “movement world”, which as we have seen now includes virtual worlds.

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