The Co-Evolution of the “Social” and the “Technology”: A Netnographic study of Social Movements in Virtual Worlds

Research-in-Progress

Introduction

Virtual worlds have the potential to change the way in which organizations and social groups organize (Castronova 2005a; Castronova 2005b). Virtual worlds enable millions of people to interact with one another through avatars in online three-dimensional worlds. These online worlds contain mountains, trees, oceans, and wild creatures, and are made to look something like the real world (Castronova 2007). Schultze and Orlikowski (2010) suggest that virtual worlds enable globally distributed work, project management, online learning, and real-time simulations.

One important social phenomenon which has moved into the virtual world is the social movement. Social movements are an important means of bringing out social, cultural and political changes through collective action (Staggenborg 2011). Historically, humans have employed many tactics to raise awareness for their cause (Goodwin and Jasper 2003) or to lobby for social change. People have banded together in social movements with the aim of pursuing common goals and achieving social or political change. In the virtual world, there have been virtual protests in Second Life (Blodgett and Tapia 2010; Robinson 2008), in World of Warcraft (Abalieno 2005; Blinded 2011), and various other virtual worlds (Blodgett 2009; Blodgett and Tapia 2011; Castronova 2003).

However, virtual worlds have some important characteristics which make them quite different to the real world (Kozinets and Kedzior 2009). A virtual world may constantly evolve as designers make modifications, often in the form of a patch, expansion pack, or terms of service (Roquilly 2011). These changes may have impacts on the users of these virtual worlds. This suggests that further understanding of how virtual world technologies, avatars, and the unique nature of virtual worlds impact social phenomena (and vice versa) is needed.

Williams and Pollock (2012) advocate what they call the ‘biography of artifacts’ approach, or how a system (in their particular case, ERP software) evolves over time and space. We extend this idea of ‘biography of artifacts’ to examine not just the evolution of the technological artifact itself (the virtual world), but also its co-evolution with the social phenomena (a social movement).

One of the authors conducted netnographic research - a form of ethnography for the Internet - (Kozinets 2010; Myers 2009), with a social movement in a virtual world called World of Warcraft (WoW). He conducted netnographic ‘fieldwork’ and became immersed in the movement’s regular activities. On several occasions, the movement was forced to reorganize its structure due to changes implemented by the designers of WoW, or by other social factors inside the game. It also became clear that the game is being used in ways which the designers did not originally intend. We use new social movement theory and actor-network theory to help explain our findings.

Virtual Worlds

A virtual world can be defined as “a synchronous, persistent network of people, represented by avatars, facilitated by networked computers” (Bell 2008 p. 2). Virtual worlds include social virtual worlds such as Second Life, and gaming virtual worlds, such as WoW. Virtual worlds have the potential to be used by political and social scientists to observe individual and collective patterns of online behavior in order to test social theories or develop new ones (Papargyris and Poulymenakou 2008).

Virtual worlds differ from more traditional social networking technologies because they provide a richer, and more immersive experience, and can be deeply engaging (Wasko et al. 2011). However, creators of virtual worlds have been seen by some as “gods”, and users of these worlds must follow whatever decisions they make. In a study of 20 different virtual worlds, Roquilly (2011) examined five key factors...
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(creativity, community, codes, copyright, and contract) that creators use in the development and control of virtual worlds. These factors control what users of these virtual worlds can and cannot do within these worlds.

Millions of people have invested their time and energy into using these virtual worlds, creating characters, meeting new people, and engaging in new forms of social interaction. Schultz and Rennecker (2007), Assmann et al. (2010), and Schultz and Orlikowski (2010) argue that virtual worlds 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 also provide an interesting research stream. For example, WoW offers an alternative world where social functions, learning, and the development of social skills occur in a virtual environment (Davidson and Goldberg 2009). Virtual worlds have the potential to become laboratories where experiments in social science can test new norms, values, and institutions (Bainbridge 2010). Virtual worlds also have the potential to be proving grounds for real world social innovations, cultures, and social movements (Bainbridge 2009) as well as substituting for social institutions in the real world (Williams 2006).

Social Movements

In recent history many people have banded together with others to pursue common goals and achieve social or political change (Goodwin and Jasper 2003). This collection of people is called a social movement. Social movements often protest against the current social order to bring about cultural and political changes through collective action (Staggenborg 2011). Some movements have looked for opportunities to claim new rights, while others have responded to threats or violence. 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 and Jasper 2003).

Recently, social movement research has begun to investigate how social movements are using the Internet. The Internet has played an important role in initiating and steering activism (Postmes and Brunsting 2002) as movements take advantage of the Internet’s capabilities (Leizerov 2000). Brunsting and Postmes (2002) argue that the Internet affects the nature of collective action. Postmes and Brunsting (2002) suggest that the Internet has assumed a significant role in transforming collective action which ranges from confrontational to persuasive, and from individual activities to collective ones. The Internet enables mass communication which allows many people who may have previously been less politically active to become politically active.

Social movements can connect “through” the Internet; but virtual worlds now enable social movements to connect “within” the Internet. Blodgett and Tapia (2010) discuss a number of differences between real world and virtual world protests. First, a virtual world allows more distant participants to become involved in a protest. Second, the establishment of a hierarchy changes as hierarchies are now encoded into access and control rights. Third, using a virtual world enables the organizers to contact a broader audience. Last, building solidarity through technology allows the size of personal networks to grow and allows distant strangers to find commonalities. Using the concept of digital protestainment, Blodgett and Tapia (2011) discuss virtual protests as a blend of work and play, and work and entertainment, with each of these opposing forces impacting the way in which protest actions in a virtual world shape the eventual outcome.

As social movements proliferate through virtual worlds, the virtual world itself becomes more than just a game to these groups of people. Reference blinded (2011) discuss a social movement in WoW which holds annual parades and dance parties. This use of WoW is in sharp contrast to the original intention of WoW where the whole point is to ostensibly fight against others. However, this movement is actively promoting itself as a safe and inclusive place for members. Reference blinded et al. (2011) also presented an on-going conflict between the designers of the game, and the organization of the movement. As the movement grew in size, the designers released new patches which limited the size of the movement. This had consequences for the movement as they were then forced to re-organize to overcome the changes to the virtual world enforced by the designers. Due to continuous changes to the virtual world artifact, the social movement was forced to reorganize or change its form to meet the new technological requirements of the virtual world.
As more social movements move into the virtual arena, we believe that a greater understanding of the relationships between social movements and virtual worlds is needed. Blinded reference et al. (2011) presented a multi-dimensional research framework designed to address the major issues relating to the study of virtual world social movements. The purpose of this framework is to address the major differences in studying social movements in the virtual versus the real world.

**Research Design**

This research looks at a social movement in WoW and uses a qualitative research method called netnography, which is a form of ethnography for studying online communities (Kozinets 2010; Myers 2009). The collection of data in netnographic studies involves participant observation and interaction with community members (Myers 2009). Netnographic researchers must be active in some part of the community and not be invisible to the people under investigation, but nor should they lead the community (Kozinets 2010).

Netnography follows a similar process to traditional ethnography. The first stage is to define the research questions and social sites and topics to investigate. Stage two involves selecting and identifying an online community. During the third stage, the researcher will engage and immerse themselves in the online community using participant-observation and various data collection methods. This is followed by stage four where the data is analyzed and the findings are interpreted. The final stage of a netnographic study is to write, present, and report on the research findings and theoretical or practical implications (Kozinets 2010).

One of the authors joined a social movement inside WoW and participated in movement activities such as an in-world parade and dance party, and began participant observation of movement activities. Field notes were taken during involvement with the movement: this involves screen captures (WoW provides the ability to record the game in movie files), and note taking.

Data was obtained from discussion forums from the social movement’s website. Email interviews will be undertaken with movement leaders after the analysis of the discussion forum posts is complete. The purpose of these interviews is to obtain clarifications or extra information to back up the findings discovered from the discussion forum analysis. Other primary and secondary sources of data will be obtained, and are described in table 1.

### Table 1: Data sources for the study.

<table>
<thead>
<tr>
<th>Source of Data</th>
<th>Nature of Data Collected</th>
<th>Expected Quantity</th>
<th>Progress</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participant Observations</td>
<td>Field notes; movie screen cams from movement activities.</td>
<td>Several hours of movie files collected. At least 50 screenshots.</td>
<td>Completed.</td>
</tr>
<tr>
<td>Discussion Forum Posts</td>
<td>Discussion posts from movement website.</td>
<td>128,773 posts dating back to 2006.</td>
<td>Completed.</td>
</tr>
<tr>
<td>Chat Logs</td>
<td>Chat logs from movement in-game chat channels.</td>
<td>Approximately 1.5 years worth of chat logs.</td>
<td>Completed.</td>
</tr>
<tr>
<td>LGBT website</td>
<td>Textual information relating to background information about the movement and rules of membership.</td>
<td>Approximately 20 pages of information.</td>
<td>Completed.</td>
</tr>
<tr>
<td>Email Interviews</td>
<td>Conversations with guild leaders relating to issues/challenges of guild maintenance in virtual worlds.</td>
<td>5-10 interviews</td>
<td>To be completed after data analysis of discussion forum posts.</td>
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</table>
The field site selected for this study is WoW, which is the most popular virtual world game with 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 as a field site for several reasons. First, WoW has a large user base and it is easy to identify active participants. Second, few IS researchers have studied virtual world games, although Schultze and Rennecker (2007) and Assmann et al. (2010) suggest that more IS researchers should study virtual world games. Third, we believe that this field sites demonstrates an interesting combination of gaming and social movement activities, which takes the game beyond that of which the designers initially intended.

To examine the co-evolution of the virtual world artifact and the social movement, it is necessary to examine the evolution of each at various points in time (see figure 1). To examine the evolution of the virtual world, patch notes will be used. WoW regularly releases patches which change the way in which the game operates, which in turn changes the way the movement is instantiated within the virtual world. Often these changes are minor, but sometimes a major change occurs which may affect the social groups within the virtual world. Changes made to the virtual world will be compared with changes in the social movement by examining the history of the social movement (using the discussion forums and participant observations), especially around the time in which patches were released.

Figure 1: Co-evolution of virtual world and social movement.

Preliminary Observations and Research Question

The social movement used for this study is a Lesbian, Gay, Bisexual, and Transgender movement, hereafter referred to as the LGBT movement. LGBT has over 6,200 members (players) in WoW and has over 15,000 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.

To place the following observations in context, it is necessary to first explain some vital characteristics of WoW. When a player starts a new character in the game, they first have to decide what realm to play on. A realm (also called a server), is the game world which exists for several thousand players within it. Each realm in the game is exactly the same, however each realm has its own characters (players) who are tied to that realm. It is possible to interact with players on your own realm, but not with players on other realms. The world in which WoW is set is named Azeroth, which is divided up into zones. Each zone is suited to characters of a certain level. Once a character is created, they can then be “born” into the world. Each new
character starts at level 1. One of the most important activities in WoW is leveling a character. To achieve a higher level, the character must perform quests and kill in-game monsters which reward experience points. Once a character has earned enough experience points, they will “level up”. Leveling up increases the strength and power of the character, and allows them to learn new spells and abilities which may only be available once a character has achieved a certain level. Leveling is also important because it allows a character to travel around Azeroth. Each zone has a certain level range, for example 10-20, which means players below level 10 are not yet strong enough and may easily die if they enter, while players over level 20 will not earn many experience points if they remain in that zone. Rettberg (2008) and McKenna et al. (2010) have described quests and leveling in more detail.

WoW provides a system where players group together into guilds. Guilds consist of several players with similar interests within one of the two in-game factions (Alliance or Horde), who provide opportunities for assistance with quests, social interactions, and protection from rival factions (Brignall and VanValey 2007). If any group in WoW wishes to form a long term group, they must form a guild.

In June 2010, one of the authors started a new character in the game and joined LGBT (a guild). Soon after joining, LGBT held a pride parade inside the game. However, the parade took place in a zone which was beyond that of the researcher’s current character’s capabilities. Therefore, in order to attend the parade, extensive time was needed to level the character to an appropriate level in order to enter the zone without fear of attack from the wild creatures of that zone. A similar problem occurred when the movement held a dance party. This time, the current character in the movement was level 20, however the zone where the dance party was to be held was a level 60 zone. To overcome this problem, a level 60 character which had previously been created on another realm was transferred to the same realm as the movement for a cost of $25 USD. This introduces the first observation: participation in social activities is tied to the ability of the character and its virtual world location.

At the time the researcher joined the movement a number of steps were involved to become a member. First an application form must be completed on the movement’s website. A successful applicant must then join an in-game chat channel which LGBT created. Once in the channel, the player must wait for an officer who formally invites the player into the guild. In August 2010, a message was sent to all members informing them of a change in invite procedures, due to ‘trolls’. A troll is a player who spams discussion forums or chat channels. Many trolls had discovered the invite channel and were constantly spamming the channel, causing problems for the officers. The invite channel was then moved from in-game to the movement’s website. This introduces the second observation: interactions in the movement are impacted by both virtual world technologies, and in-game social aspects.

LGBT periodically holds in-game social events, such as the pride parade, and dance party as well as a group photograph. At the end of the parade various other activities took place such as a model competition named “Azeroth’s Next Top Model”. Some players temporarily changed the gender of their character, and most players performed spells that created lighting and sparkling effects around their character. In July 2010, the movement held a dance party in the city known as Shattrath. In October 2010, the movement had a guild photograph. See figure 2 for an illustration of these activities. This introduces the third observation: the game is used in ways which the designers did not originally intend.

Figure 2. Parade (top left), dance party (top right), and group photograph (bottom)
Image: ©2004 Blizzard Entertainment, Inc. All rights reserved
LGBT is a family of several guilds. An important aspect influencing the organization of these guilds is the technological requirements of the virtual world. This was evident in October 2010 when Blizzard announced that it would cap the size of guilds to 1,020 members prior to the release of the next expansion pack, Cataclysm. We can speculate that from Blizzard’s perspective, these groups were becoming too powerful within the game, so they needed to have some constraints put on their size. As a result of these actions, by late January 2011 the main LGBT guild had 3,500 players (down from 5,000). Inactive members were removed and many players volunteered to move their characters from the main guild to one or more of the sub-guilds. Later that same year, however, one of the sub-guilds disbanded from the LGBT movement altogether. Since this time, LGBT has increased its number of guilds to ten in order to overcome the design decisions forced upon the virtual world by Blizzard. Another issue relating to this movement having multiple related guilds is that each guild has its own guild chat channel that allows members of each guild to have discussions in game. Due to the technical requirements of the game, this means that members of another guild (even an affiliated guild) cannot share a guild chat channel. To overcome this, the LGBT movement created an add-on for the game that joins the chat channels for multiple guilds, thus allowing all ten guilds to combine their chat channels as though it were one channel. This introduces the fourth observation: social groups can overcome issues placed on them by the design of the virtual world. This may involve reorganization or creating game add-ons.

Based on the participant observations made of the LGBT movement, it becomes clear that there is an interplay between the virtual world (technological artifact controlled by designers), and the social (groups of people within and reacting to the virtual world). As more social activities take place in virtual worlds, it is important to understand exactly how they might be impacted by the technology in which they are acting within. It is also clear from the observations presented above, that the reverse (social groups affecting technology) is also true. For example, Blizzard changed the design of the virtual world when the groups within it became too large. Each time a new patch is released, certain aspects of the social group need to change, for example, chat add-ons may no longer work and need to be re-programmed. Another example occurred after the most recent game expansion was released. The annual pride parade had to alter its route as the old virtual world location of the parade had been destroyed when the designers implemented new storylines into the game.

Virtual worlds have changed the way in which organizations communicate and conduct business (Schultze and Orlikowski 2010; Schultze and Rennecker 2007). However this study is focused on the social phenomena which occur within virtual worlds. Previous studies of social movements have examined how movements connect “through” the Internet; however, virtual worlds also allow movements to connect “within” the Internet. The virtual world itself becomes like an ecosystem, with social activities happening in a highly immersive world. This ecosystem is often altered by the designers which means that users (or avatars) “living” within this ecosystem must adapt to the new technological configurations imposed on them by those designers. Therefore, this study explores how the technological artifact (the virtual world) and the social world (the social movement) impact each other and co-evolve.

**Theoretical Basis**

This study will apply two theoretical lenses: new social movement (NSM) theory, and actor-network theory (ANT).

NSM is used to theoretically describe the social movement used in this study. 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). 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).

NSMs emphasize action in the cultural sphere or civil society as the arena for collective action (Cohen 1985; Melucci 1989), while stressing the important of strategies which promote self-determination and autonomy (Rucht 1988). Rather than conflicts over material resources, NSMs tend to emphasize post-materialist values of collective action (Inglehart 1990), while their grievances and ideologies are social constructed, rather than constructed from a groups structural location (Johnston et al. 1994;
Klandermans (1992). NSMs also present temporary, latent, and submerged networks which underlay collective action, rather than assuming that collective action emerges from centralized organizations (Melucci 1989). Scott (1990) discusses the organizational form of new social movements, they: (1) are locally based, or centered around small groups; (2) organize around specific or local issues; (3) are characterized by cycles of movement activity and mobilization, i.e. periods of high or low activity; (4) have fluid hierarchies and loose systems of authority; and (5) have shifting membership and fluctuating members. An analysis of how these organizational forms differ in virtual worlds is presented in Blinded for review purposes (2011).

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. A socio-technical approach is required to understand both the social aspects enacted, and the technology which mediates those social actions. To understand the technical evolution, it is necessary to study the biography of WoW. Williams and Pollock (2012) advocate understanding the biography of an information system and follow it through time and space. Their approach attempts to study an information system 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 gain a socio-technical understanding of this phenomenon, we will also utilize ANT, which is an appropriate tool for socio-technical research (Callon 1986), and has been advocated for use in information systems research by Walsham (1997). ANT does not distinguish between human and non-human elements, including people, software, hardware, organizations, and treats the social and the technical as inseparable (Walsham 1997). We believe ANT is a useful means for data analysis in this study for its ability to examine the co-evolution of society and technology (Callon 1986), and for understanding a systems biography, or how a system is shaped over multiple time frames and settings (Williams and Pollock 2012).

This research will explore the socio-technical aspects relating to the instantiation of social movements within virtual worlds, and examine how the technology and the social are related. In particular, ANT will help us analyze how the biography of WoW impacts the social movement aspects such as mobilization and recruitment of individuals (Edwards and McCarthy 2003; Jenkins 1981; McCarthy and Zald 1977; Staggenborg 2011; Tilly 1978); social movement organization (Pichardo 1997; Scott 1990; Tarrow 1994); strategies and campaigns (Goodwin and Jasper 2003; Staggenborg 2011; Tilly and Wood 2009), and movement outcomes (Buechler 1995; Gamson 2003; Staggenborg 2011). Using ANT, we aim to follow these aspects through the evolution of WoW.

**Conclusion**

As social movements proliferate through virtual worlds, virtual worlds become more than just a game. Combining new social movement theory with actor-network theory, the next stage of this research is to examine how the technology of virtual worlds impacts social movement activities such as mobilization and recruitment of individuals for social movements, social movement organization, strategies and campaigns, and movement outcomes.

This study has the potential to contribute to IS research in two ways. Firstly, this study is a contribution to research methods in that it is one of the first to apply the netnographic approach in information systems. Secondly, this study will contribute to an understanding of how the technological artifact itself (the virtual world and the social phenomena (a social movement) co-evolves over time. Our study may have some important implications for business as new forms of organizing are enabled by virtual worlds.

We recognize that there are a number of limitations to this study. Firstly, we acknowledge that this study is based entirely on WoW, and as such some of the results presented are very WoW reliant. A second limitation is that this study presents only one social movement. Future studies could examine social movements in other virtual worlds to further deepen our understanding of the relationships between virtual worlds and social and political change.
References


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