VIRTUAL ETHNOGRAPHY RESEARCH ON SECOND LIFE
VIRTUAL COMMUNITIES

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ABSTRACT

The rise of digital technologies like 3D virtual worlds has the potential to open new directions in virtual ethnography researches. Although there has been a lot of discussion about conducting research in online spaces and in virtual games, there are few studies on conducting research in virtual worlds.

In this study, within a holistic perspective, the virtual ethnography research potential in Second Life was investigated with the help of a detailed participant observation research conducted by researchers in Second Life and from a holistic perspective. This research was conducted in the fall semester of the 2009-2010 academic years. In this study, researchers in the role of a participant observer conducted 8 observations in ethnographic focus. Also, some important methods and techniques that can be used in doing ethnographic research in Second Life are presented in this study.

Keywords: Second Life; virtual ethnography; participant observation; virtual communities.

INTRODUCTION

Virtual distribution of information and authentic educational interaction is the major advantage of education today. Every day, renewed technology, exponentially ascending knowledge and communication possibilities provide innovative learning environments. These fairly faster and flexible communication based environments have a high degree of interaction potential that is of vital importance for educational applications. One of these innovative environments is the 3D virtual world platform like Second Life, Dreamworld, There, Active Worlds and Meet Me. Three-dimensional virtual worlds (synthetic worlds) are multimedia, simulated environments, often managed over the Web, which users can “inhabit” and interact via their graphical self-representations known as avatars (Minocha, Tran & Reeves, 2010).

Second Life stands out in terms of user numbers and service quality among 3D virtual world environments. Second Life (SL) is a 3D virtual world application created by a U.S. company called Linden Lab and opened to service on the 23rd of August in 2003. Only in February 2008, 38,000 people (residents) used this environment for 28,274,505 hours (Linden Lab, 2010). In January 2009, 18 million people signed up to this environment. This also shows us the occurrence of a new community in Second Life. This community has verbal and visual communication facilities with 3D high-quality interaction in virtual environments.
This rising 3D community also attracts the attention of researchers. Scholars are beginning to research the development of culture and community of Second Life in ethnographic studies of its overall social structure and of its subcultures. Although there has been a lot of discussion about conducting research in online spaces (e.g. Markham, 1998; Mann and Stewart, 2000; Hine, 2000; Hine, 2005) and in gaming environments (e.g. Yee, 2008), there are few seminal sources to refer to about conducting research in virtual worlds (Bainbridge, 2007). In this study, from a holistic perspective, the ethnographical research potential in Second Life was investigated with the help of a participant observation research conducted by researchers in Second Life.

VIRTUAL COMMUNITIES AND VIRTUAL ETHNOGRAPHY

Virtual world applications are sophisticated social networks beyond the three dimensional visual environment where individuals communicate with other different communication networks created and communication networks connected to each other (Joseph, 2007). With their learner-centered features and multimedia support, 3D virtual world applications are regarded as a convenient platform to establish a learning environment. 3D virtual worlds have a considerable importance and potential for the creation of learning environments for the following generations (Fırat, 2010). A virtual world can be described as a genre of online community that often takes the form of a computer-based simulated environment. In these environments, users can interact with one another and use and create objects. Virtual worlds are intended for its users to inhabit and interact. 3D virtual Worlds are interactive environments, where the users take the form of avatars visible to others graphically. Compared with the conventional 2D Web, virtual worlds offer novel ways (Boulos, Hetherington and Wheeler, 2007):

- to navigate multimedia contents (streaming audio/video/TV collections),
- to browse information spaces/document collections in 3D virtual libraries,
- to relax and visit new places and new sample cultures (e.g. visiting the pyramids in Egypt),
- to play multi player games in the virtual world including educational games,
- to buy, sell and advertise virtual and real life goods and services,
- to develop social skills and interact with other people via customizable, realistic, 3D animated avatars (3D social networking),
- to attend and participate in live events like Second Life conferences and
- to build communities including learners’ communities among many other things.

Developments related to Second Life show us the occurrence of a new community in Second Life. This demonstrates that a culture with its specific features has occurred in the Second Life environment and that ethnographic research can be conducted in this community.

Ethnographic research is one of the most complicated research types. Various perspectives are taken into consideration to explain a certain community, group, institution or situation as a whole (Fraenkel & Wallen, 2000).

Ethnographic research basically includes observations and interviews held with individuals and other related people to describe or explain their everyday experiences. In this type of research, the key tools are made up of in-depth interviews and constant observations used in all ethnographic studies.
Recent studies in computer mediated communication and consumer behavior areas have helped debate the definition of Internet ethnography (Kozinet, 2002). In his study, Hine (2000) argues that virtual ethnography tries to create a distinctive understanding of the significance and implications of the Internet. To Kozinet, (2002) ethnography on the Internet is a new qualitative research methodology that points to adaptation of traditional features of ethnography.

AN ETHNOGRAPHIC RESEARCH IN SECOND LIFE

This ethnographic study aims at revealing the community in an island in Second Life environment as well as the interactional and communicational culture created by this community. In line with this purpose, through this research process, we have conducted detailed observations for collecting the research data. For a good ethnographic field study, in-depth observation has great importance. Participant observation is a key feature of virtual ethnography research. Participant observation, which requires the researcher to obtain firsthand experience of the online culture, has vital importance for successful virtual ethnography research (Hair & Clark, 2003).

In ethnographic research, each phase of detailed observation requires preparation and attention. In this study, before starting the observations, all the details from determining the number of observations to be done in the environment to discussing the focus and scope of each observation were planned in advance. Before starting doing observations in Second Life, the points determined for detailed observation are as follows:

- The physical structure of the Second Life environment
- The social structure of the Second Life environment
- Individual-Environment interaction
  - The activities regarding the individual’s interaction with the environment and the techniques applied for this purpose
- The interpersonal interaction dimension
  - Interpersonal interaction activities
  - Communication opportunities
    - Written communication opportunities and the tools applied
    - Visual communication opportunities and the tools applied
    - Verbal (auditory) communication opportunities and the tools applied

Throughout the present study, approximately 30-minute long detailed observations were done at different times. This study was conducted in the Fall Term of the academic year of 2009-2010. In the study, the researchers in the role of participant observer conducted 8 observations in ethnographic focus. The observations carried out in this study are presented in Table: 1.

<table>
<thead>
<tr>
<th>Observation</th>
<th>Date</th>
<th>Time</th>
<th>Data</th>
<th>Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Research in Second Life</td>
<td>13-20 October</td>
<td>Average 70 minutes</td>
<td>Document Scan</td>
<td>The availability of conducting qualitative research In 3D Second Life</td>
</tr>
<tr>
<td>Observation 1</td>
<td>26 October</td>
<td>22:11-23:41</td>
<td>Physical</td>
<td>Examining the physical structure of the Second Life area determined as the observation place</td>
</tr>
<tr>
<td>Observation 2</td>
<td>4 December</td>
<td>21:10-22:05</td>
<td>Physical</td>
<td>Going on examining the physical structure of the Second Life area</td>
</tr>
<tr>
<td>Observation 3</td>
<td>8 December</td>
<td>19:43-21:02</td>
<td>Physical</td>
<td>Going on examining the physical</td>
</tr>
</tbody>
</table>
An avatar is necessary for doing observation in Second Life. The avatar used in this study was created by the researchers about two years ago. The researchers followed the Second Life environment starting from the day it was established; thus they knew all about the features of the environment. This capability of researchers is an important advantage for the present study requiring detailed observation conducted within the scope of virtual ethnography. The researcher should be a part of the online community for an extended period of time before formal data collection (Hine, 2005).

As can be seen in Table 1, in the first phase, the researchers carried out a preliminary study on the applicability of qualitative research techniques. In this preliminary study, they examined the researcher’s participant observer role, the technical capabilities of the computer connected to the environment and the detailed description of the observer’s location in a 3D virtual environment.

<table>
<thead>
<tr>
<th>Observation</th>
<th>Date</th>
<th>Time</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>14 December</td>
<td>12:17-13:24</td>
<td>Physical, Social</td>
<td>Examining the social structure of the environment and the changes in the physical structure</td>
</tr>
<tr>
<td>5</td>
<td>17 December</td>
<td>02:12-03:02</td>
<td>Physical, Social</td>
<td>Examining the interactions and actions of the users in the environment and the changes in the physical structure</td>
</tr>
<tr>
<td>6</td>
<td>23 December</td>
<td>19:28-20:40</td>
<td>Physical, Social</td>
<td>Examining the written communication activities of the users in the environment and the changes in the physical structure</td>
</tr>
<tr>
<td>7</td>
<td>25 December</td>
<td>00:20-01:00</td>
<td>Physical, Social</td>
<td>Examining the visual communication activities of the Second Life users together with the physical changes.</td>
</tr>
<tr>
<td>8</td>
<td>29 December</td>
<td>11:44-13:02</td>
<td>Physical, Social</td>
<td>Examining the auditory communication activities of Second Life users in the environment and the physical changes.</td>
</tr>
</tbody>
</table>

Figure: 1
Observer locations
As a result of this preliminary preparation, the researcher’s participant observer role was adopted for these observations; a computer with sufficient technical equipment was obtained; and a decision was made on drawing outlines clarifying the location of the observer in SL during the observations. As can be seen in Figure: 1 below, the mini map application of SL was used while drawing the outlines. Before and after doing each observation, the researchers kept “research logs”. In this way, without being away from the focus and context of the study, the participant observer researcher’s views likely to directly influence the success of the study were recorded.

In the research process, the decisions made by the researcher, the problems experienced by the researcher and the important turning points were also recorded.

Below is a paragraph of quotation from the research log demonstrating two important turning points regarding the participant observer’s observation?

As a result of the observations I have made up to now, I believe it will be beneficial to repeat the points that I should pay attention to in my observation. First of all, I have to do careful physical observation during each observation for faster physical environmental changes. In addition, I have to do a planned strolling since objects are not seen clearly in SL if they are not so close.

For this reason, before starting my observation, I determined a route to stroll and decided to stroll according to this route.

One of the most important turning points recognized during this research process was the fact that the planned routes for strolling in the environment observed should be determined because the objects were seen only after coming close enough to them in the Second Life 3D virtual environment.

In this study, the observer determined a route for strolling in advance for each observation.

This route determined for strolling was followed during the observation. By following different routes for each observation, the environment was observed as a whole.

Figure: 2 below shows the route determined for strolling for observation 5.

![Route Determined for Observation 5](image-url)
During the observations done in the research process, everything the researcher witnessed together with the field notes were video-recorded.

Therefore, for each of the 8 observations done, separate videos were recorded. As can be seen in the study, in social studies carried out in the Second Life environment, data triangulation is easier as well as necessary due to the different characteristics of the individual in the environment. Figure 3 below presents the techniques applied in this study.

The findings obtained in the study were confirmed by comparing with the data obtained via different data collection techniques. Data triangulation is conducted for the confirmation of the validity and reliability processes of the study (Patton, 2002).

The environment including the avatar in Second Life can be recorded with all its visual and auditory components.

The latest Second Life client also supports advanced, realistic voice chat, text chat and instant messaging, featuring 3D mapped voice with ‘audio focusing’ capabilities and speech gestures. This provides researchers with important facilities. In a real environment, it is not possible to record all the things the participant observer researcher sees or hears. For this, the video camera should be installed in the researcher’s eyes and a high-level of audio should be recorded, which is not a practical situation in real life.

The data obtained via the observations done within the scope of the ethnographic research conducted by the researchers were transformed from observation notes into detailed observation forms, descriptive indexes and indexes of researcher’s comments. In this way, the data were transcribed and made ready for detailed analysis.

For example, three different transcriptions regarding the 5th observation are presented in Figure: 4 below.
The most advantageous side of participatory observation is that it requires examining cultural issues. Generally, an ethnographic researcher has to study for eight-nine weeks or more with the individuals being observed in order to conceptualize the basic beliefs, fears and expectations of the individuals in that group. The researcher should be a part of the online community for an extended period of time before formal data collection (Hine, 2005).

It does not mean that they should participate in all the activities but that they should be aware of what is going on in a general sense.

The fact that the researchers have observed the Second Life environment starting from day it was established and that they know well about the features of the environment is an advantage in this study.

DISCUSSION

Studies in social media, online games and virtual worlds have a number of challenges in different aspects. The characteristics of these technologies are in a constant structure. Therefore, the emergence of new technologies changes the behavior and online identities of users (Shailey, Minh and Ahmad, 2010). As a result, the user adopts different technologies over time. However, providing its users with a wide range of virtual creativity, SL is an authentic 3D learning environment which is not based on imitative wars as in video games and which does not have a certain theme but draws researchers’ attention (Fırat, 2008).

The challenges of conducting research on Second Life and within Second Life are distinct from carrying out research regarding 2D virtual environments. One key difference is that the user’s avatar and the avatar’s appearance are additional dimensions of the user’s identity in a virtual world.

The reason is that in 3D Virtual World, the avatar can navigate (fly, walk, sit, teleport) and communicate with other avatars through gestures, voice, text and instant messaging. These communication and interaction possibilities in virtual worlds create a sense of being in an authentic environment.
This sense of place in a virtual world is more similar to face to face situations in the real world than interactions in a two dimensional virtual environments (Minocha, Tran & Reeves, 2010).

One major consideration when conducting research in Second Life is the collection of data from within the Second Life. Currently available methods are: use of existing Second Life data collection objects and services, use of existing screen capture software and third party web metric softwares. Here are two Second Life data collection tools and description of data collection (Sherman & Tillies, 2007): V-Tracker can be used to determine the number of visits, number of unique visitors, average time per visit and avatar details; and Lifecrawler can be used to determine Second Life traffic data, including visits, duration and specific activities within a location.

**CONCLUSION**

In this study, the virtual ethnography research potential was discussed generally in 3D virtual worlds in general and specifically in Second Life. For this purpose, ethnographic observation research carried out by the researchers was used. The methods, techniques and strategies applied in the process of this research conducted via 8 participatory observations in an island of the Second Life environment are described in detail in the present study.

In ethnographic studies to carried out in future in the Second Life environment formed by communities constituting their own culture, the way followed in the present study could be applied. To Murthy, (2008) New Media Technologies can exponentially extend the reach of social research, and the rise of digital technologies has the potential to open new directions in ethnography.

The ethnographic research possibilities of Second Life are endless, and interest in research and evaluation in Second Life is rapidly growing.

In addition, in Second Life research, there are important current questions mentioned by different researchers: When an avatar in Second Life provides informed consent (Hair & Clark, 2003; Landers, 2010);

- are they giving permission to share their avatar’s identity or their real selves?
- critically for research purposes, when they answer questions, who is answering them: the person or the avatar that person has created?
- what differences arise as a result of spoken interviews (using the in-game voice chat functions) versus text? Does this confuse the avatar distinction even further?
- how will they react to emancipator and participatory agenda in the absence of traditional contact of the researcher in a physical sense?
- will they be willing and able to improve conditions of digital relationships?

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