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Nil GOKSEL CANBEK, Anadolu University
Maria MAVROMMATI, University of Macedonia
Despina MAKRIDOU, University of Macedonia
Ugur Demiray, Anadolu University

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LIFELONG LEARNING THROUGH SECOND LIFE:
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Nil GOKSEL-CANBEK, B.A., MA.
Instructor, Anadolu University, Eskisehir TURKEY

Maria MAVROMMATI PhD Candidate
Despina MAKRIDOU-BOUSIOU,
Prof. Dr. Dept. of Applied Inf., University of Macedonia, GREECE
Ugur DEMIRAY
Prof. Dr. Anadolu University, Eskisehir TURKEY

ABSTRACT

Lifelong Learning (LLL) has been a remarkable response to people-centered educational demand of 21st century. In order to provide effective formal, non-formal, and informal learning, immersive educational activities undertaken throughout life should be aimed to create a learning society in which people can experience individual and collective learning with no constrains of time or location. The concept of lifelong learning within the context of distance immersive education encompasses diverse 3D activities.

The three dimensional, Web-based structured activities supported by distance learning technologies can be viewed as interactive tools which foster LLL. In this perspective, Second Life (SL) can be regarded as one of the learning simulation milieus that allow learners to participate in various educational LLL activities in individual or group forms. The following paper examines how SL, taking advantage of its simulative nature and the possibility for creative interaction among participants, which are also common in games, allows the learners to participate in immersive constructivist learning activities.

The article will also touch on the current uses of SL as a tool for LLL, as well as its potentials for further development according to the current trends in adult education. Further, the authors will discuss its limitations and will make suggestions towards a more complete pedagogical use.

Keywords: Second Life (SL), Lifelong Learning, immersive education, 3D, virtual game

INTRODUCTION

Until quite recently, the game based three dimensional virtual platforms designed within the frame of distance learning technologies seemed to be built upon the nuances of Lifelong Learning (LLL).

As described by Areeya Rojvithee’s (n.d.), LLL is a learning concept that embraces formal, non-formal and informal education within a continuous lifelong process for all times and all places. Lifelong learning activities constructed within the frame of Web-based structured distance education might be the best tools to foster LLL.
As connoted by Pivec and Dziabenko (2004, p.24) game based learning is becoming a new form of interactive content that universities are also looking for a new positioning in the changing setting of lifelong learning. As one of the 3D centered milieus supported by LLL strategies, Second Life (SL) with its multicultural immersive form allows its registered users to have a vivid sense of belonging to an interactive community based on game engine (Gollup, 2007) but not specifically accessible for only a selective group of fanatical online gamers (Feldberg & et.al, 2009, p. 36). In this connection, SL can be viewed as an educational initiative in which instructional simulations and animation based learning approaches take place within the context of content development.

As highlighted by Kim & Baek (2010 p.165), SL is a classroom built in 3D cyber space in which in-game based constructive studies are conducted via digital course materials. SL, in this regard, emerges as a semi-structured, active platform that facilitates constructivist learning (Scott, Liu and Kumar, 2010). In the study conducted by de Freitas & et al. (2010), Second Life is estimated as a collaborative milieu, which might use the socially-based learning activities designed for lifelong learners. Thus and so, SL can be appraised as a unique platform for knowledge construction and collaborative interaction between the digital representatives of selves termed avatars and course instructors within an immersive social network based on LLL. According to Franklin (2008) an animated graphical character called avatar becomes the representative of a learner in the case of an educational setting. SL, as an ascendant platform, is an immersive multicultural source providing cyber interactions among avatars (Goksel-Canbek & Kurubacak, 2010). Therefore on SL, the avatars are encouraged to interact with one another in a communicative surrounding. The platform is ideal for the applications of technology-enhanced education which lead to participatory active education supported by distance related technologies. With its interactive-communicative unity, the integration of SL into higher education is highly debated (Jarmon & et.al, 2009) by many scholars. The reason for this debate is the structure of SL that allows its residents to learn in game based simulation forms.

PURPOSE

Second Life (SL), as a novel distance related technology, is emerging as a new Web-based logical tool for distance education (Ritzema & Harris, 2008) SL, is an opportunity that embodies a community of learners in which learners and course instructors interact equally and collaboratively during the process of knowledge construction (Feldberg et. al, 2009). The user generated learning makes the platform a place with an interworking function of virtual reality from which the learners and course instructors both benefit from. As indicated by Clark (2009), Second Life offers hands-on and minds-on activities which make it possible for students to replicate the simulation experiments within a didactic immersive milieu.

SL is a teaching/learning milieu with courses offered by more than two hundred universities (Scott, Liu and Kumar, 2010) and has over 100 regions for SL islands used by universities and colleges (Kim & Baek, 2010). In this regard, SL, as a virtual learning system, is an advanced platform consisting of various higher education institutes across the globe. In this context, it is an active novel system of teaching and learning in which interaction can be observed obviously between learners and course-instructors. By interacting, both sides evolve their computer literacy skills and manage to gain effective and enriched communicative abilities. SL can be augmented by linking 3D objects to external applications and Web content (Sullivan, Baum, Dyer & Braman, 2009). That activates collaborative tasks within digital communities of the platform on which users can promote consistent learning.
This paper examines how SL used as a tool for LLL through its game-like co-created simulative nature allows its users to participate in 3D constructivist learning activities. The paper also explores current trends and potentials of Second Life within the context of LLL. Further, the authors will discuss its limitations and make suggestions towards a more complete pedagogical use. In accordance with the abovementioned objectives of this paper, LLL through SL is intended to be explained for promoting new approaches and perspectives toward future studies on virtual learning. The paper will elucidate the learning potentials of digital communities within the context of LLL.

**CURRENT TRENDS, POTENTIALS and LIMITATIONS of SL**

Second Life is a computer-generated platform on which instructors and learners are more active by developing the milieu rather than purely replicating real life into this cyber space (Kim & Baek, 2010). According to the mentioned authors, the virtual land makes the instructors and the designers apply incentive methods of learning within individual and group tasks. The land designed on game patterns with no competitive goals allows its users to get involved in a highly interactive educational process. Through their self created visual representatives, avatars can create unique designs and participate in team works. While clarifying the trends, potentials and limitations of SL, simulations should be taken into great consideration. As connoted by Wagner (2008; Feldberg & et al, 2009) virtual worlds have a great benefit of using simulations and simulations in 3D virtual worlds typically allow for the playing of different roles, and as such contribute to learning through experiencing. The simulative experiences of SL support the constructivist learning through collaborative activities.

**Learning with Simulations**

*Second Life* is a virtual world whose features are considered by some ideal for instruction. The ability to identify with one’s avatar, transforming it to the closest to one’s imaginary self, the possibility to wander around unknown worlds, the freedom to act in similar to real life circumstances without the dangers that doing it in real life would entail, social interaction with people with similar interests, and finally the ability to engage in different kinds of activities, are some of *Second Life’s* characteristics that make it more than a distance learning or a social networking platform. All the above, together with interactivity and the endless possibilities this virtual world offers to its “inhabitants”, call for a closer look on the *Second Life* phenomenon.

Various instructional approaches support the use of simulations in education, starting from different theoretical principles on knowledge. Cybernetic psychology, as used by Joyce, Weil & Calhoun (2004, 323-334) in order to form a model for teaching with simulations, sees learning as experiencing the consequences of one’s actions in their environment, which leads to alteration of their reactions.

Behavior is corrected and lead to adjustment to desired forms of reaction through the constant feedback one get from their environment depending on their actions. Consistent with this theoretical approach, cybernetic psychology sees simulations as ideal learning environments, because they allow learners to adjust their behavior in regards to the feedback they get from the system represented in the simulator. “Feedback” is what makes simulations an effective learning environment, while it enables the users to adjust their own cognitive skills to the process of learning.

Another approach, expressed by Reese (2007), sees simulations as convenient means for the creation of mental maps, namely representations of relations between facts and ideas. Simulations and games give the players opportunities to live experiences in virtual worlds, which enable the formation of mental models.
This means that a simulation enables the user to experiment with various factors and experience the results of his/her activity in the digital environment of the simulation, a process synonymous with knowledge construction and connected with situated learning conditions. The player who acts in a simulative environment constructs cognitive models by interacting in it with the material offered for learning. These models can function as preparation for future learning, since simulations allow the creation of cognitive maps, through the development of analogical thinking, namely creation of knowledge analogous to previous knowledge.

The third approach sees learning as a social construction. According to Wenger (1998), learning is constructed through one’s participation in communities with common interests, through a process of identity formation due to “membership” in such communities. Simulations and computer games enhance this feeling of belonging in a community with common interests, while the player/user learns ways to react in situations similar to those of real life, connected to a specific profession and its practices, enabling the user to not only adopt such behaviors in the virtual environment but also to transfer them in real life situations (Shaffer 2006a, Shaffer 2006b). This way, virtual worlds like Second Life or computer games allow the learners to construct understandings of simulated real life situations and proceed in problem solving techniques before they confront similar situations in real life.

Interaction with other participants in a virtual world, be it an online game or a simulation like Second Life, seems to be one of the core factors of enjoyment (Simon, 2006). Social interaction within the virtual environment (Lee & Hoadley, 2006), cooperation (The Games-to-teach Research Team 2003, 22), knowledge transfer between the users/players and team playing (Ke, 2008), as well as competition (Vorderer & et al., 2003), are also crucial factors connected with game enjoyment and are related with participation in virtual worlds in general, being completely aligned with learning theories that promote cooperative learning. Audiovisual representations that enhance interaction seem to promote identification of the users with their avatars inside the virtual environments (Hefner et al., 2007), which in turn brings more interest for the activity, creating conditions for what is known as “flow state” (Kiili 2005; Simon, 2006; Hefner & et al., 2007). Creating and taking an electronic identity may also enhance empathetic understanding (Lee & Hoadley, 2006). The greatest advantage of the digital simulations, however, is the chance given to the user to participate in environments that simulate reality, in a way that realizes what is called situated learning conditions (Gee 2003, p. 72-112). In particular, the players participate in real-life simulations, which they would not be able to experience otherwise, in their natural presence. Simulations thus engage users in activities otherwise unapproachable, which could correspond to real-life parallels.

Trends of Second Life for Education: Higher Education and Business Organizations

Since its launch in 2003, Second Life has been used as a virtual space for training and education, a trend that has been increasing in the following years. The numbers of institutions, private or public, higher education or other, which offer virtual modules in Second Life, have been increasing rapidly. According to the wiki.joycadia.com space, formerly known as the Second Life Education wiki, the variety of courses offered in Second Life (the editors of the site divide them in 43 categories in total, on January 2010) is tremendous, ranging from courses offered by University faculty as part of their traditional classes, to training sessions offered by international organizations, to virtual libraries with specified interests. The SaLamander project categorizes the courses offered in Second Life regarding the user’s expected learning outcomes, namely the kinds of activities they are engaged in when they enter the space of each of the educational Second Life projects.
These categories, which Experiential, Role play, Diagnostic, Problem solving, Demonstration, Collaborative, Constructive, Skill building, gaming, correspond to instruction methods, are listed as follows (http://www.eduisland.net/salamanderwiki/index.php?title=Main_Page).

**Potentials of Second Life as an Educational Tool**

The variety of the efforts described above however, raises some issues regarding the nature of learning in the simulative environment of *Second Life*. Is it used as just another distance education platform, providing synchronous and asynchronous distance learning opportunities? Do the creators and educators involved in it just transfer distance learning applications, without taking advantage of the simulative nature and the endless possibilities of the medium? The characteristics of *Second Life*, as well as virtual spaces in general, could make it an ideal virtual place for learning. What would differentiate it from other platforms created for distance learning applications? In other words, why use just another new technological tool, if it only utilizes the same applications as others? What is new in *Second Life* that could be used in education? No matter what, learning in *Second Life*, and in virtual worlds in general, is still an area full of potentials and possibilities. Our hope is that *Second Life* and all the other virtual worlds will be utilized in the best possible way, taking into account the particularities of the medium and fully developing them in purely pedagogical terms, and not seeing it solely as another distance education platform. What should be utilized in *Second Life* and all the emerging virtual environments, when used for education, is the advantage they offer for the user to experience certain possibilities, e.g. through simulations of historical worlds, professional environments or social simulations. Its current use mostly focuses on *Second Life* as an online meeting point, for the creation of e-classrooms and virtual conferences, constraining it in the possibilities most e-learning platforms already make use of. It does not therefore take advantage of the chance to create authentic experiences simulating real-life situations. Inserting a virtual environment such as *Second Life* in education is itself no panacea, if it is not followed by the utilization of its characteristics that make it a new medium.

For example, in teaching foreign languages in SL one would expect to find more opportunities for real interaction with native speakers of the language learnt or even virtual trips to foreign countries.

**Limitations of Second Life as an Educational Tool**

*Second Life* as a new digital innovation and a technology based semi-structured platform has some limitations in service. Even though, SL can be regarded as a Web based learning milieu built upon self-centered and collective hands-on and minds-on activities, it still faces some obstacles towards pedagogical utilization of the SL land. As indicated by Jiggins & Collins (2007), even though new technologies bring *pedagogical utopia* for the innovators, there is still an ambiguity regarding what *Second Life* will bring to educational evolution. New applications fed by distance related technologies of SL are still questionable in terms of skills gained on using three-dimensional game based images. With a similar approach, it is highlighted that limited access to simulation-based virtual worlds would impede possible learning opportunities if educators do not take the reservations and concerns (Franklin, 2008) related to constructivist learning approaches. According to a research in which SL users assessed SL, it can be claimed that the platform is a popularized Web 2.0 tool supported by 3D technology (Goksel-Canbek, 2009) on which new research on content and curriculum development should be reevaluated in order to achieve more interactive and goal oriented educational results. The constructivist activities planned beforehand and the curriculum designed onto appropriate pedagogical patterns would omit the restraints of SL.
The content built up on convenient communication and learning theories would generate promotive and prominent improvement on learning.

CONCLUSION AND SUGGESTIONS FOR FUTURE TENANCIES OF SECOND LIFE

The Web-based distance learning strategies elicit new tenancies through 3D interaction and interdependent communication on SL. In order to make the learning systems influential, the learning experiences should be financially reevaluated by the researchers. The learners’ views and attitudes toward SL learning might be clearly observed within the frame of avatar expression. In this regard, the game-like simulative nature of the land, as a tool for LLL, should be analyzed for the future approaches onto immersive learning. In addition to the abovementioned concerns such as the land’s current trends, potentials and limitations discussed by the authors, the suggestions for future tenancies (Goksel-Canbek, 2009) of Second Life are as follows:

- The SL platform should be enriched with effective and supportive Web 2.0 tools in order to eliminate the deficiency of immersive synchronous/asynchronous communication;
- The inadequacy in providing file sharing, IM should be omitted;
- Convenient curriculum and planned content should be taken into great consideration in course design;
- Diverse troubles confronting e-learning should be handled by self-regulating and dynamic experts and researches of SL;
- Web-based distance learning strategies for online collective and constructivist learning should be internalized by the designers and course instructors of SL;
- The online courses systems should include both independent and collective schooling that foster LLL;
- The learning experiences should be incentive;
- Self-centered and collective activities built upon creative thinking should be formed;
- Interactive communication should be provided in SL network;
- Joint sources should be clustered for extensive data exchange;
- The reconciliation of effective various ICT tools should be considered;
- Problem, project and research based activities should be provided.

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BIODATA and CONTACT ADDRESSES of AUTHORS

Lecturer Nil GOKSEL CANBEK currently works as an interpreter at Anadolu University (AU), Turkey maintaining effective communication between various world institutions and Anadolu University Rectorship. She completed her master’s degree in the field of Distance Education at the Graduate School of Social Sciences of AU in 2009. She conducted her thesis study on "Learner-Instructor Interaction within University-Community"
Partnerships by Giving Samples from SL”. She has various academic works related to SL, which are also presented in several international conferences. Her research interests are social networks and their potential usage in Distance Education, online and immersive learning, new learning technologies, Second Life in Education, Social Interaction, Augmented Reality, Mobile Augmented Reality, Mobile Web 2.0, Blogs, Collaboration Technology, Computer Mediated Distance Learning, E-learning, Mash-ups, Technological Innovation, Technology And Culture, User Innovation and Wikis.

Lecturer Nil GOKSEL CANBEK, BA, MA
ANADOLU UNIVERSITY
Office of the Rector 26470, Eskişehir /TURKEY
Tel : + 90 222 335 05 80 /1117 (Ext.)
Fax : + 90 222 335 34 86
E-mail: ngoksel@anadolu.edu.tr

Maria MAVROMMATI is a PhD candidate since 2007 at the Department of Applied Informatics, University of Macedonia, and Thessaloniki, Greece. She received her Bachelor’s degree in History (2004) from Aristotle University, Thessaloniki and her Master’s degree in History (2005) from the University of St Andrews, Scotland, UK. Her current research includes use of computer games as tools for instruction, intercultural education and history teaching.

Maria MAVROMMATI, PhD candidate
Department of Applied Informatics
University of Macedonia, Egnatia 156, Thessaloniki, GREECE
Phone: +30 2310 891887
Email: mmavrom@uom.gr

Dr Despina MAKRIDOU-BOUSIOU is a Professor of Applied Informatics at the Department of Applied Informatics, University of Macedonia, and Thessaloniki, Greece. She received her Bachelor’s degree in Economics (1979) and her PhD in Economics teaching (1992) from the University of Macedonia. She has published more than 60 papers in national and international conferences, and articles in scientific journals. She teaches principles of economics, teaching methods, teaching techniques for economists and teaching techniques for political scientists. Her academic interests lie in the field of teaching economics with new technologies and e-learning models.

Despina MAKRIDOU-BOUSIOU, PhD,
Professor of Applied Informatics,
University of Macedonia, Egnatia 156, Thessaloniki, GREECE
Phone : +30 2310 891845
Email: bousiou@uom.gr

Prof. Dr. Ugur DEMIRAY is Professor of Communication Teaching in the School of Communication Sciences of Anadolu University, Eskisehir, Turkey. He holds Undergraduate B.A. in the a media Studies at Anadolu University, Faculty of Communication Sciences, and also completed his Ph.D. at degree Anadolu University, Social Sciences Graduate Institution, in May 1986. He is currently working for the

Anadolu University.
His researches are dealt with distance education application of Anadolu University, Ministry of Education and by other universities in Turkey. His researches on Communicational gaps of distance education students with their institution, also interest also lies towards the profile of DE students, and relationship of graduates and job market in Turkey, and marketing of distance education programmes and e-learning universally. In addition, he has an extensive experience publishing e-journal on distance education internationally under the patronage Anadolu University since 10 years, named, TOJDE-Turkish Online Journal for Distance Education-TOJDE is a peer-reviewed quarterly e-journal and indexing in ERIC.

He is also an editor, consultant editor, reviewer, or book reviewer for more than 15 international journals which are deal with distance education and educational technology. In addition, he has responsibilities on advisory boards and as referee for conferences, symposiums, and panels. He has co-authored and individually contributed chapters in some Turkish and international books. Up to now he has around 15 imprint or eBooks dealt with distance education and many articles, which has been published national and international journals.

Prof. Dr. Ugur Demiray
Anadolu University Yunusemre Campus 26470-Eskisehir TURKEY
Tel: +90 222 335 0581 ext. 2521 or 2522
GSM: +90 542 232 21 167
Fax: +90 222 320 4520
URL: http://www.ugurdemiray.com
URL: http://www.midasebook.com
URL: http://tojde.anadolu.edu.tr
E-mails:udemiray@anadolu.edu.tr or udemiray33@gmail.com

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