

## STUDENTS' FIRST IMPRESSION OF SECOND LIFE: A case from the United Arab Emirates

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### ABSTRACT

Emerging 3D virtual worlds such as Second Life can offer students with opportunities to enhance learning using rich collaborative asynchronous media. Virtual worlds are believed to impact the future of higher education and therefore, universities across the world are immersing themselves inside virtual worlds to establish a unique learning and research environments. This research examines the viability of Second Life as an educational platform from the perspective of a group of students in an Islamic society context. The students were attending one of the universities in the United Arab Emirates. The analysis indicates that students experienced both positive and negative aspects of Second Life. The results do encourage further experimentation in this positive novel way for learning.

**Keywords:** Online learning, Virtual Worlds, Culture sensitivity, Technology Adoption

### INTRODUCTION

A virtual world (VW) is an interactive multiuser computer created environment (Hendaoui et al. 2008; Messinger et al. 2008). The inhabitants or the users of these environments are represented by three-dimensional graphical figures of humanoids (avatars) that communicate in real-time using text or voice.

Avatars engage in socializing and creating 2D & 3D content. Virtual worlds have the ability to simulate the real world in terms of landscape and activities and expose users to a high level of interactive immersion. VWs are not games since there are no rules to dictate the flow of events and no pre-set objectives nor expected outcomes. It is believed that the next predictable transformation of the internet will be based on VWs. VWs are opening new frontiers for experimentation, executing ideas, and inspirations. The interactivity and participation in VW is different from the current Web environment; it is subsequently changing the way we share, co-create and communicate.

Currently there are more than 300 VW and "Second Life" ([www.secondlife.com](http://www.secondlife.com)) is the most popular and emerging as a leading Internet-based trading platform. Second Life was launched in 2003 by Linden Research, Inc (Linden Lab). Linden Lab provides the land (called Islands) and free construction tools and the content are co-constructed by the imagination and skills of its registered residents or avatars.

Second Life has critical mass created from various sectors such as business, health care, education, entertainment, government and non-governmental organizations. Ives and Junglas had discussed in the APC forum the growing potential of VW for business such as IBM and DELL and a comparable number of educational institutes and universities including MIT, Oxford, Duke, Edinburgh, and University of Southern California (Jennings, 2008). SimTeach (2008) lists registered educational organizations inside SL.

Second Life has been used to hold meetings and conferences and deliver seminars, workshops and lectures across disciplines. For example, Harvard law school has built a court room in SL for students to practice their advocacy skills. Second Life in Education (2008) illustrates with practical examples, as shown in the list below, how SL is being leveraged by educators:

#### SL activities in education

- Distance and Flexible Education
- Presentations, Panels and Discussions
- Training and Skills Development
- Self-paced Tutorials
- Displays and Exhibits
- Roleplays and Simulations
- Data Visualizations and Simulation
- Libraries, Art Galleries and Museum
- Historical Re-creations and Re-enactments, Living and Immersive Archeology
- Computer Programming
- Artificial Intelligence Projects
- Artificial Life Projects
- Multimedia and Games Design
- Art and Music Projects
- Literature, Composition and Creative Writing
- Theatre and Performance Art
- Treasure Hunts and Quests
- Virtual Tourism, Cultural Immersion and Cultural Exchange
- Language Teaching and Practice and Language Immersion
- Social Science and Anthropology Research
- Awareness/Consciousness Raising and Fund Raising
- Support and Opportunities for People with Disabilities
- Politics, Governance, Civics and Legal Practice
- Business, Commerce, Financial Practice and Modeling
- Real Estate Practice
- Product Design, Prototyping, User testing and Market Research
- Interior Design
- Architectural Design and Modeling
- Urban Planning and Design

Second Life is a resident-driven world. Residents live and interact synchronously with millions of people globally. Upon registration with SL you are given the ability to select and modify your avatar. The avatar becomes the reinvented "self"; you can be of any shape and design with the freedom of choosing between human, animal or objects and with the ability to change your gender or you can even mix and match. The avatars represent the minds and the emotions of their originators.

Avatars are under your control, you can practically go places you have never been before. You can walk or fly around (with or without wings) and interact with others in a three-dimensional virtual space with no physical limitation dictated by gravity. Avatars are associated with clothes, accessories, and body shapes that can be created or purchased from retailers or designers. Avatars can also go shopping, explore nature, travel the world, visit museums, art galleries; rent and buy land and build and furnish houses.

Avatars can converse (text, audio), build in collaboration, attend events, listen to presentation, experiment with new products, and play games. They can also communicate beyond text or voice chat, and can choose from among many gestures that are easily created and freely circulated among users. Gestures make social interaction more realistic such as sitting, bowing, clapping, laughing, dancing, and doing artistic performances and other movements that are characteristically human.

Content generation in Second Life is iterative, interactive, and participative and the residents share willingly their experiences and knowledge. Construction of objects, buildings and its landscape in SL is very engaging and totally visual. SL is an illustration of the art and the creativity of residents, portrayed by the construction of buildings, houses, roads, café, shops, restaurants, golf courses, showrooms, offices malls, bookshops, supermarket, transports, conferences halls, beautiful scenery et cetera.

One of the most important aspects of SL is that every object such as vehicles or musical instruments can be controlled by embedding executable scripts. Scripts are based on event driven scripting language, which can control and change most aspects of the appearance and behavior of the object, and the way they communicate with avatars and with other objects and agents; as soon as a script is added to an object, it begins to execute.

As mentioned earlier, SL provides a novel way for learning and has a wide acceptance by educators, mainly because it is inexpensive and provides a large range of free tools. Richer et. al (2007) have identified four types of engagement that educators are experimenting in SL such as, demonstration, experiential, diagnostic, and role playing. Experiential learning had become an accepted practice in higher education to enforce collaboration (Lombardi, 2007). In addition it has been also used to develop simulations and games, which can engage students in higher-level of cognitive thinking, such as interpreting, analyzing, discovering, evaluating, acting, problem solving and creativity (Antonacci, 2008; Megan, 2007).

SL has been characterized to enable feelings of immersion, connection with students and content, shared social learning space, and real sense of being there. SL is considered as an ideal ground for social constructive learning, where knowledge and artifact are constructed collaboratively.

Teachers are designing learning activities and conducting complete courses in variety of disciplines. Second Life can provide a platform to mirror real workplace situations.

It is recognized for collaborative learning environment to foster teamwork and interactions for students' projects such as Systems Development, and developing electronic commerce business plans (Bixler, n.d; Ye et al., 2007, Bloomfield, 2007; Ives et al, 2008, Jarmon et al., 2008). It has a potential as a communication tool for lecturing (Martinez, 2007 ) and creating virtual offices to assist and advice students during office hours (Cliburn et al. 2009). It is for all these reasons, faculty and students are being attracted to SL.

## RESEARCH MOTIVE

Online technologies have great potential to enhance learning through different medium of communication. Students today expect technology to be part of their learning environment. Students enjoy the collaboration and communication fostered by the web 2.0 tools such as Facebook, flicker, YouTube and so on.

However, there is distinctive difference between Web 2.0 and virtual worlds in two main areas -synchronicity and interactivity. The web enhances communication across time, while communication in Virtual worlds requires synchronicity. The interactivity using virtual Avatars provides richer and more memorable experience than text chatting with emoticon.

SL can be appealing to instructors for the following reasons:

- More humanistic than the 2D Web
- Has real economy and culture
- Potential for socializing, entertainment, business tool, commerce, e-learning
- Scripting language
- Fast and low cost prototyping capability.

This was the motivation in this study for considering SL as a potential environment for learning. This study is explorative in nature to gauge students' perception towards the environment, in order to determine if SL is worth the investment?

The focus of this study, is to determine what do students think about their SL's first encounter and specifically in an conservative Islamic cultural society

## CASE CONTEXT

This initial study involved questioning a group of under graduate students at one of the universities in United Arab Emirates. Forty five students participated in this study. The students were mature, with an average age of 25 years, all of which had basic computer skills. Initially the students were introduced to Second Life and to its registrations process including how to create an avatar and how to navigate in-world. Students were asked to explore this environment freely over several days. Students' engagement with second Life averaged 4 hours with some students clocking 15 hours. At the end of the exploration students were asked to answer several open ended questions concerning their experience. They were asked to describe their negative and positive experience and if they would have interest in continuing using SL.

Students were given the freedom to teleport anywhere to explore the various islands. Students accessed Second Life either from computer labs at the university or from home. As mentioned earlier the purpose of this explorative study is to get an initial understanding of students' perceptions and reactions towards Second Life in the context of United Arab Emirate's culture, a culture that is characterized by Islamic beliefs and values.

Approximately, 350 rich statements were generated from students' responses to the open ended questions. Through qualitative analysis several categories emerged. The analysis used constant comparative method to code the data into categories. Each statement was taken separately and allocated a representative category. These categories are then used to understand and explain the students' initial experience with SL. Interpretation of qualitative data is subjective because researchers' presuppositions or pre-understandings affect the interpretation of data (Lopez and Willis, 2004), therefore, the findings are the researchers perspective to the interpretation of the students statements. The outcome of the analysis is discussed in the next section.

## FINDINGS

Students were asked if they would continue using SL after their short encounter, only 35% said 'No', while the majority (65%), said "Yes", this indicates SL can motivate or inhibit students. Examination of students' statements does reflect both positive and negative implications (See table 1 for a list of motivators and inhibitors of using SL).

Looking first at what may motivate students to engage in SL, students' statements were grouped into five categories, namely:

- Socializing,
- Roaming,
- Empowerment,
- Captivating, and
- Educational.

Although students did not spend much time inside SL they were able to quickly sense the value of this enriching environment. Some of the students' statements are shown below to demonstrate the nature of the statements.

*Learned many things during my visits to the different islands, I found many people to chat and learn about their culture... I was able to talk to others and spend good time... The idea of SL is very nice because we are able to meet people from around the world... It contain lots of features and its not boring when you use it...I Like the idea of controlling the avatar and change the body shape and dress...and moving from place to place... I like the graphics and the weird characters that i met, they make me laugh... improves our language by talking with others.*

Students highlighted the 'socializing' aspect of SL, seen as the main attractor (34%). Students indicated that 'roaming' or teleporting from one island to another was viewed positively (19%). Other students mentioned they liked the sense of 'empowerment' through the ability to control their avatar(11%), Students did also mention 'captivating' remarks pertaining to the SL concepts and its 3D landscape, which may have given them a feeling of global exposure, playful environment, realistic (immersive)...etc (21%). Only 11% of the students recognized the 'educational' value of using SL. Finally some students (4%) mentioned that they did not like anything about SL and probably for the reasons mentioned later in this section.As mentioned earlier students had also expressed the negative aspect of their experience with SL, which may be viewed as inhibitors or barrier to entry. Below some of the statements of the students for illustration purpose:

*It is complicated... The appearance of woman and men without clothes.. Needs to restart a lot.. the slow action in moving the avatar... don't have clothes for Muslims.*

While 4% of the students did not like anything about SL and 16% did not mention any complaints about SL. Other students were more specific in mentioning the negative aspects of their experience, which were categorized into 'Cultural', 'Complexity', and 'Technical'. Student did not like certain aspects of SL due to cultural reasons mainly because to nudity and lack of cloths appropriate to the Islamic culture (41%). Students' statement was also related to the complexity of SL (19%).

Students mentioned that they had difficulty in operating in second life and specially controlling their avatars, moving from one place to another, and this required large investment in terms of time. Students were not satisfied with performance of SL (19%), students reported on the freezing, restarting and the slowness of movement of their avatars. Some of the students' comments were also related to the lack of help and support.

**Table: I**  
**Motivators and Inhibitors of using SecondLife**

<b>Motivators</b>	
<b>Socializing</b>	<b>Socializing with others from different community and from different time zone to learn about others.</b>
<b>Roaming</b>	<b>The ability to move from one location to another</b>
<b>Empowerment</b>	<b>The ability to create and control the avatar and other objects and giving sense of dependence.</b>
<b>Captivating</b>	<b>Portray a multitude of positive emotions to allure the users such as tantalizing, engaging, humorous, astonishing, entertaining, appealing, and immersive.</b>
<b>Educational</b>	<b>Educational platform allowing for observation, communication, thinking, learn from others, sharing, searching, discovery and keyboarding.</b>
<b>Inhibitors</b>	
<b>Cultural</b>	<b>Lack of cultural insensitivity (nudity).</b>
<b>Complexity</b>	<b>Complex and difficult to operate, and requires computer savvy.</b>
<b>Technical</b>	<b>Slow response, freezing, and little support</b>

## **DISCUSSION**

While Second Life has numerous potential for online education (Bixler, n.d; Ye et al., 2007, Bloomfield, 2007; Ives et al, 2008, Jarmon et al., 2008), this study had demonstrated Second Life can offer opportunities for learning environment, but this potential is also overshadowed by several barriers, which might make Return on Investment difficult to justify.

The emerged categories (Socializing, Roaming, Empowerment, Captivating, and Educational) provide a combination of characteristics that is appealing for social constructivism education. A study by Fetscherin and Lattemann (2007) revealed that 70% of the respondents perceived that SL improves collaboration and communication. The recent Media Consortium (NMC, 2007) survey with 209 education related staff had mentioned that SL has the greatest potential for simulation activities and Scenario based training.

The finding from the Schome pilot project with 149 students revealed that SL can enhance knowledge skills including communication, teamwork, creativity and leadership skills (The Schome Community, 2007). The same study had also mentioned that "People are using Second Life not to change their identity, but rather to explore and visit new place and meet people". Captivating is another appeal of SL according to the students' comment.

This attraction is due to its visual appeal and the ability to discover new places and meet new people with no restriction to time or distance. The ability of student to control their avatars and movement in 3D gave them a sense of self and empowerment (Cross et. al, n.d.). Another perception that was made by student is the possibility of realism or impressiveness of the environment, which means that students can become involved mentally and emotional in an activity and this has a great potential for developing higher level learning (Jeffery et al., n.d). From these characteristics Second Life may be considered as a viable platform for education. See Salt et al. (2008) in their extensive review of how SL is being used in the various educational disciplines and how it renders itself to various educational theories (behaviorism, congitivism and constructivism).

However, one should also consider the barriers and the dissatisfaction that were noted by the students, which may hinder SL adoption. Probably the most pressing barrier is related to cultural issues in particular in some Islamic regions, where modest cloths and wearing head scarves is the norm across the population. Faculty from Western countries need to be aware of this fact when they are engaging students from diversified backgrounds or when faculties are engaged in cross-cultural collaboration activities.

The other barrier is the complexity and technical issues related to second life. Steep learning curve is one of the characteristics of this type of environment. Meeneck et. al. (2008) their study with 29 graduate students indicate that student were overwhelmed with the complexity of Second Life.

In another study 24% of the respondents perceive SL as difficult to use.

In this study students also complained of complexity. These issues may be reduced if students had longer training and support prior and during their self discovery journey. In this case students had only received three hours of SL demonstration.

Students who accessed Second Life from home had better experience than those who used the university computer lab.

From the point of view of these students Second Life still needs improvement. However, it is critical that prior training to SL is needed before taking a full plunge, in addition to guidance throughout their learning experience.

From these barriers we should expect different students' reaction including resistance to change since in this study shows that 37% of student would not like to use SL again. These barriers are considered problematic and source of anxiety for students. These barriers need to be considered carefully when designing and implementing SL activities.

## CONCLUSION

The findings from the small sample size in this research are not adequate to reach a decisive conclusion the opportunities and the barriers of Second life. However, the study reveals new findings in this culturally diverse environment; according to this study students are willing to use Second Life for its perceived attributes (Socializing, Roaming, Empowerment, Captivating, Educational) and for those students who are not happy to return to Second Life, due to the senesede barriers i.e. Cultural, Complexity, and Technica.



Second Life still has a long way to become a mainstream. Researchers and educators have only just begun to research this area. Educators who are planning to enter the virtual world need to prepare themselves for this new culture, shaped by 3D environment, multiple media and technical requirements.

Despite students' dissatisfaction with SL, we still encourage faculty to research the educational value of Second Life and in particular how it can be applied to meet specific IS learning outcomes. According to Sherman et al. (2007) "There are limitless possibilities for educational research and evaluation within the Second Life environment."

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