



Global Implications of Web-Based 3D Virtual Worlds

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Society has always longed to escape reality. People accomplish this through many various forms including books, writing, television, movies, and more recently, through the use of the computer. Computer-based 'escapes from reality' can be traced back to programs written for the Commodore 64 and Apple II such as *Zork* (1980), *Enchanter* (1983), and *The Hitchhiker's Guide to the Galaxy* (1984). One 'game' in particular could be considered a predecessor of modern internet-based virtual worlds in addition to providing insight into society's desire to 'be' someone else. *Alter Ego* was a computer game title released by Activision in 1986. The player made life decisions for an imaginary person and these decisions had an impact or consequences on the outcome of the game.

Enter Second Life virtual world, developed by Linden Research, Inc. in 2003. This particular internet-based virtual world does not have an overall objective and/or strategy. Nor does it have winners, losers, or the ability to accumulate a score. However, by the end of March 2008, approximately 13 million accounts were registered. Additional figures show that residents spent over 28 million hours last year immersed in Second Life. Therefore, on average, approximately 38,000 residents were logged on at any particular moment.¹ There are various internet-based virtual worlds in existence today such as *There* and *Active Worlds* but none of them are having a substantial impact on the 'real' world beyond social networking to the extent of Second Life.

Second Life has a style similar to *The Sims*. *The Sims* is a life-simulation game developed by Maxis and Electronic Arts in 2000. Like Second Life, it lacks an overall objective. However, by 2002, *The Sims* had sold more than 6.3 million copies worldwide and its sequel *The Sims 2* had sold more than one million copies in the first ten days after the game's release.² The popularity of this type of interaction method has assisted in the familiarity and acceptance of the Second Life environment. Like *The Sims*, users in Second Life control an 'avatar' which is a 3D representation of the user. However, this avatar can be customized in any way. Avatars range from animals to close-to-reality representations of one's self. The virtual-world in which these avatars reside is

¹ Wikipedia: The Free Encyclopedia, http://en.wikipedia.org/wiki/Second_Life

² Inside Mac Games, <http://www.insidemacgames.com/news/story.php?ArticleID=10194>



as diverse as its inhabitants primarily because the building of the world is left up to the inhabitants.

Social Networking in Virtual Worlds

First and foremost, these virtual worlds are considered a place conducive to social networking. Second Life and its competitors have a significant impact on society especially when these communities are complimented by other digital and/or technological mediums such as text messaging, instant messaging, and Skype. For the cost of an internet connection, an individual has access to anyone situated anywhere around the world. Sometimes it is difficult to grasp the concept that an individual you may be speaking with is in a country that could be thousands of miles away.

Second Life incorporates many of the facilities available in 2D or more conventional social network sites (myspace, facebook, etc) which match people through shared interests and similarities. However, Second Life extends the networking focus from shared interest to an immersive experience. It allows participants to meet other avatars and walk around their virtual homes. Second Life features open networking facilities, including Group affiliations, Friends lists, publicly-viewable Avatar Ratings, and profiles.

Recent studies have shown that the group that spends large portions of time in Second Life is not only economically but also socially privileged. There is a strong correlation between happiness and success in Second Life and happiness and success in real life. The number of friends one has in the real world correlates strongly with the number of friends one has in Second Life. There is, however, a small group which feels less comfortable in the real world but has discovered fantastic social possibilities in Second Life. This is true for some retirees, unemployed, housewives who are bound to the house by certain circumstances, and those who are ill or physically challenged.³

Business in Virtual Worlds

Users interested in social networking are not the only ones involved in virtual worlds. Where there is a potential audience, business opportunities will develop. Currently there are more than 3100 fulltime enterprises residing in Second Life. Some companies are merely interested in raising awareness of their products within the online community, while others are trying to sell their real-world or virtual-world services. As businesses compete in the real world, they also compete in virtual worlds. Since there has been an increase in the buying and selling of products online, businesses have been forced to adjust to accommodate the new market.

³ The Hague, EPN - Electronic Highway Platform, December 2006



Where there is business there has to be currency for buying and selling of goods. Second Life has its own currency, the Linden dollar that can be exchanged for real US dollars. One US dollar is worth about 250 Linden dollars. In Second Life, virtual transactions amount to more than USD \$1 million daily.

Similar to the internet boom of the 1990's, virtual worlds are thriving in popularity therefore businesses want to have a presence in these worlds. But merely having an existence similar to the real world is not necessarily the best approach. Virtual worlds have their own unique advantages and these advantages need to be realized and exploited in order to have a successful business venture.

Singapore currently has a strong presence in Second Life. First Meta was one of the first Singapore-based companies to set up shop in the virtual community. It was established in February 2007 making First Meta the first virtual bank to provide credit card and corporate financial services in Second Life. According to First Meta's co-founder Aileen Sim, the bank has 10 employees, most of whom are full-time staff. Its credit cards are accepted by more than 100 merchants in the online world. Users in Second Life can utilize the credit from First Meta to buy digital goods their avatars can use in the virtual world.⁴

Furthermore, IBM is an example of a large, traditional business that has set up a presence in Second Life. IBM has dedicated sales staff to serve customers from Singapore, Australia and Malaysia at its virtual IBM Business Centre. The centre had nearly 10,000 visitors in the first two months after its launch.⁵

Unfortunately, not all business ventures in virtual communities have been successful. When Cisco Systems decided to go virtual in Second Life, the experience did not turn out precisely as the company had expected. "We were quick. We got into 'Second Life' and put up a big building with repurposed Web content. It was a ghost town. Digital tumbleweeds," said Christian Renaud, head of Cisco's networked virtual environments. It turned out people wanted to log on to Second Life to hang out with friends and play casual games, not visit a 3-D version of a corporate Web site.⁶ However, Cisco Systems did not give up, instead they adjusted their strategy. Cisco Systems decided to restructure their space into an environment that focuses on collaboration and interaction. Cisco employees interact with each other, customers, and partners or trainers in the company's virtual offices.

If companies can understand and exploit the strengths of 3D virtual worlds, their venture into this environment has a much better chance of being successful. One strength of virtual worlds that is proving successful is the training of employees. Virtual training has a lot of advantages compared to the traditional classroom and meetings. First and foremost, it saves a company time and money

⁴ ZDNet Asia, May 25, 2007

⁵ IBM News Online, August 23, 2007

⁶ FoxNews Online, Friday, October 12, 2007



in terms of travel, accommodations, etc. Virtual training really has its advantages over traditional training when it comes to content focused on sensitive or dangerous materials. An interactive, virtual-world is an excellent place to develop simulations that would be too dangerous to conduct in the real world.

Virtual training is becoming a more widely accepted form of training and is being used more often. One example is made by the AHG, Inc. The company specializes in Second Life training simulations. Perhaps the most important and strongest feature of Second Life is the ability to create training simulations. Second Life training simulations can target both "soft skills" such as teamwork, leadership, sales, etc., and technical skills such as equipment training, technical support and others.⁷

As the advantages of 3D virtual worlds becomes more apparent and well documented, Companies will begin to embrace this technology in wider fashion. Examples of companies that are currently focused on the corporate aspect of virtual worlds include IBM, BMW, Dell Computers, and Mercedes Benz. Additionally, the Entertainment industry is also adapting successful strategies for the virtual communities. In particular, the industry is designing complex storylines that span the television and computer divide. The CBS show "CSI: Crime Scene Investigations" planned an episode where a killer is pursued into Second Life. Viewers can continue the chase from within the world, or try a few other games related to the show.⁸

Government Agencies in Virtual Worlds

The Maldives was the first country to open an embassy in *Second Life*.⁹ The Maldives' embassy is located on Second Life's "Diplomacy Island", where visitors are able to speak face-to-face with a computer-generated ambassador about visas, trade and other issues. The Island was established by DiploFoundation as part of the Virtual Diplomacy Project. The Maldives was quickly followed by Sweden and Estonia. Currently there are many government sponsored agencies with a presence in Second Life including the Center for Disease Control and Prevention, NASA, and NOAA to name a few.

Singapore has recently invested in this area of Second Life as well. Singapore's Infocomm Development Authority, the Singapore Tourism Board, and the Economic Development Board are developing virtual world presence. However, the goal is not commercial gain, but to explore operations in a virtual world and reach an emerging audience. Senior Minister of State for Information, Communications and the Arts, Balaji Sadasivan, noted that life in this digital age

⁷ AHG, Inc. Online, <http://www.ahg.com>

⁸ TechCrunch Online, October 20, 2007

⁹ The Times Online, May 24, 2007



was making the world increasingly porous, so it was important for people to 'exploit the opportunities opening up' in the cyberworld.¹⁰

Educational Opportunities in Virtual Worlds

Education and learning focused projects have perhaps enjoyed the most success in virtual worlds. The distinctive qualities of a 3-dimensional virtual world can provide opportunities for rich immersive experiences. These include simulation and role-play, data visualization and opportunities for collaboration. The use of virtual worlds can give educators the opportunity to have a greater level of student participation. It allows students the ability to carry out tasks that could be difficult in the real world due to constraints such as cost, scheduling, location, or hazards.

In general, educators develop an online presence where students can interact, using their avatars to learn about new assignments or create projects that are viewable within the virtual world. For example, Dr. Mary Anne Clark, a Professor at Texas Wesleyan University developed Genome Island. This island focuses on using Second Life to teach genetics. She has created laboratories where students can take part in virtual experiments that produce analyzable data. The Island is also designed as a place where students and other residents can meet and talk with professional geneticists.

The Second Life platform also allows for the creation of immersive environments based on historical places and events. These environments can be used for a range of learning activities including role-plays, action learning and research and historical study. Rome, Renaissance England, and the Sistine Chapel are just a few examples of historical places that exist in Second Life.

Summary

Although virtual worlds are still typically seen as 3D Games, their influence on the real world is increasing. There are many different forms that contribute to a virtual world including forums, blogs, wikis and chat rooms. They are their own world because they have their own rules, topics, jokes, members, etc. Individuals who belong to these communities find like-minded people with whom to interact. Virtual communities such as Second Life are not all about video games. These types of virtual worlds play a larger social role in that they allow people to share knowledge with each other, in contrast to online 'game' focused communities such as World of Warcraft which have the ability to contribute to anti-social behavior due to the fantasy-focused storyline. Second Life is completely unique because players or inhabitants develop communities and businesses in the game. Second Life is a game where the player has to create his/her own character with a human aspect and live in a virtual world among

¹⁰ Sunverse.net, August 22, 2007



other players. So to call Second life a game and its inhabitants players is not accurate and to assume that it does not and never will have an influence on the real world is a gross underestimate.

Second Life has a strong virtual economy which further distances it from the 'game' category. While the developers have a great deal of control over the economy, it is however the actions of players that define the economic conditions of the virtual world. The economy in virtual worlds is typically driven by in-game needs such as equipment, food, or trade goods and to a lesser extent the exchange of virtual currency to real world currency.

In the future it is safe to assume that businesses and educational institutions will strengthen their presence in virtual worlds. Since all that is needed is the software and internet access, this provides great return on investment. In particular, as a consequence of the ease of learning brought by the spread of virtual worlds, learning will become lifelong and remain in a state of continuous evolution. Employees and students alike will be able to learn through virtual worlds, no matter how old they are or where they may live.