

Preface

THE EVOLUTION OF VIRTUAL REALITIES

When many people think of virtual worlds, they think of games such as *World of Warcraft*. Others think of virtual worlds as places where people socialize, gamble, have cybersex or otherwise spend their extra time. Both of these notions about virtual worlds are correct ones because certainly virtual worlds started as places for people to play, and they still are.

Virtual worlds had their genesis when government scientists who were connected via intranet, the internet still being some years in the future, developed games that they could play with each other while they were at different workstations. Later, influenced by the game *Dungeons and Dragons*, Will Crowther developed a game called *Adventure* with a computer language called *Apranet* in 1975. Roy Trubisaw and Richard Bartle developed the first MUD, multi-user domain, in 1978 (Bartle, n.d.). From there many other MUD's were developed using "telnet," including the once very popular Lambda MOO, created by Pavel Curtis at Stanford University. Lambda MOO (MOO stands for multi-user domain, object oriented) remains in existence and is created entirely with text so that as one moves from place to place, s/he reads descriptions of the space and of the people in that space.

Virtual worlds have changed significantly over the years, changed rather than developed because 3-D worlds limit what can be done in virtual worlds as much as they expand what can be done. For instance, while many wild and interesting things can be created in *Second Life*, the most popular 3-D virtual world, what can be created with pixels still cannot match the creations of a person with a keen imagination and a sharp facility with words. Too, a place like Lambda MOO is truly created collaboratively by all the people who go there and create characters and spaces because everything is connected directly or indirectly. On the other hand, one "sim" may not be connected at all to another sim in *Second Life*, either physically or thematically.

VIRTUAL REALITIES IN CORPORATE EDUCATION

Nonetheless, the evolution of virtual realities has been positive for education in general and corporate education specifically, at least technically. While one might applaud the ease that the newer technology has made connecting people with images, text and audio, creating with words as was done in the earlier MUDs has largely been lost. Yet the ability to connect has been the primary catalyst for corporations and other organizations to begin considering potential uses for virtual realities. Corporations first took notice of *Second Life* when they thought they could market within *Second Life*'s space, since *Second Life* supposedly had so many participants and its own economy. To tap into that market, a number of

corporations established a presence, spending much money to build spaces and to market. But nobody came. Moreover, the porous firewalls needed for Second Life, the need for high performance computers, the gambling and sex sims right next door and the spotty technical support, in my experience, caused many corporations to abandon Second Life.

Over the past couple of years, corporations have taken another look at virtual realities not because of their potential for marketing but because of their potential for connecting people. Unlike other technologies, a 3-D virtual reality provides the illusion of space and identity, so a virtual world such as Second Life can accommodate a real time meeting with employees all over the globe interacting within the same space. Moreover, since identities can be created in Second Life by buying clothes, skins, shapes, even walks, people can interact with one another through avatars that serve as representations of themselves. This technology has an advantage over technologies such as video or audio conferencing, then, because all participants can be in the same space at the same time, an advantage if the space has been personalized.

Corporations have discovered the training and educational potential of virtual worlds as well as the potential for collaboration. AHG Corporation uses training simulations within Second Life so that people can make “real” mistakes without any real life consequences (“AHG, Inc,” 2008). Medical schools and other health care providers simulate emergencies within the virtual world so doctors and nurses can make quick decisions and develop their team skills (Gage, 2009). Northrop Gruman has built a replica of a high-tech bomb disposal system on which it trains people with Second Life, and if they make a mistake, nobody really gets blown up (“Case Study” 2009). Other entities such as the U.S. Military, the Financial Leadership Corporation, and IBM, who has made a large commitment to training in Second Life, have training activities within the virtual world (Hood, 2008).

The ability to connect people and the ability to create simulations has also allowed corporations to train managers, sales staff, even receptionists. The immersive nature of the 3-D virtual world and its ability to provide space also creates enormous possibilities for team training. A number of corporations have started to use this environment for team training, and some consultants have specialized in training teams in the virtual world. Since the technology can bring teams together in one space, cultural contact zones can be created where team members can learn about each other in ways that will help them accomplish their team’s mission more effectively.

A FEW OF THE VIRTUAL WORLDS BEING USED WITH THEIR BENEFITS AND DRAWBACKS

Thus far, Second Life has dominated training in virtual worlds, but other worlds are seeking to solve Second Life’s issues. For instance, Sun Microsystems has devoted its Wonderland to strictly business applications. Wonderland boasts of a totally immersive experience for participants by employing VOIP (voice over internet protocol) and video and making it easier to use. Another advantage over Second Life, a Wonderland platform can be devoted to a corporation’s server, solving security issues. Wonderland lacks, however, the enormous identity creation capacity of Second Life as well as the capacity for creating personalized spaces, an important point because teams work better in spaces that they can claim as their own. Also, rather than having employees create identities, Wonderland allows for people to connect directly to a LinkedIn, Facebook or Human Resources profile. While this capacity provides a deeper portrait of employees, it disallows anonymity, useful for learning projects such as transformative learning that I discuss in one of this volume’s chapters. On the other hand, my personal experience and

the research of others suggests that anonymity and the creation of avatars that may not even resemble a human may cause people to dehumanize the other's avatar and may promote anti-social behavior.

As Sun continues in its development, it may address issues such as these and others that have applications to education, but thus far they have asked for much input from programmers but not much from educators. To develop this technology for corporate education, Sun should seek the collaboration of educators, not just programmers. Otherwise, the tool may become just another gadget, something to play with rather than work with.

Other technologies such as Forterra Olive offer more flexibility than Second Life for the corporate user who wants to load a virtual reality onto the corporation's server, but it seems only capable of giving corporations another meeting venue, and with software such as Webex available, one wonders why this software would be used. The demonstration video on its website illustrates how it can be used for PowerPoint presentations, and it likely has chat and VOIP capabilities, but I saw no mention of it. It may have more potential, but since it will not download onto a MacIntosh, I could not fully test it.

Also geared exclusively to the corporate user, Qwaq Forums offers more versatility in identity creation, but not much more. Upon entering the forum, one is provided with a character that looks much like the old Gumby cartoon character, but one can download a personal picture to act as Gumby's head. Also, it does not seem to offer the opportunity for a group to create its own space, one of which the group can take ownership. Nevertheless, because a corporation can buy the software and load it directly onto their server, it provides greater security than Second Life. The issue of being "griefed" or of other avatars sexually harassing employees or of sensitive employees accidentally running into sexually themed sims does not exist.

Still in the alpha stage of development, Open Simulator claims that one has the flexibility to create identity in the same way as one can in Second Life. A group can also, apparently, create its own space. If this virtual reality has the same features as Second Life, simulations for skills training can be accomplished in it as well as team training and transformative learning, a shortcoming of the other virtual worlds at which I looked because their avatars could not be "animated." For skills training, avatars that can perform actions are essential, so if this technology can accomplish this feat, it will answer some significant training needs.

Another great plus for this Open Simulator, an intranet can be created for it so that it operates on a private grid. At this stage of its development, I could not download the software; thus I could not test it. However, if its claims are true, then perhaps this technology has successfully addressed Second Life's issues while retaining its benefits. I hope that in further developing this technology, the developers will seek collaboration with corporate educators and consultants.

Virtual realities cannot answer every training need of the networked corporation. Other technologies should be used in complement to virtual realities in order to fill the toolbox of the educator or consultant. Issues with Second Life such as the technical issues as well as the social focus of the environment make Second Life, perhaps, not the best tool for the educator's toolbox.

HOW TO USE THIS BOOK

This book should be used by human resource managers, corporate educators, instructional designers, consultants and researchers who want to discover how people have used virtual realities for corporate education and who want to talk to other educators about how they might be used. Further, I hope that virtual world designers and programmers will use this book to discover how educators have used and want to use this technology. This book strives to lay a strong theoretical background for the use of vir-

tual realities in corporate education, but it focuses on practical application. Divided into five sections, it provides a foundation for education in virtual worlds in the section titled, “Foundations,” a section that displays actual educational events in virtual worlds titled, “Applications,” a section that outlines approaches to designing and measuring virtual world education titled, “Designs and Measurements,” a section that focuses on team training titled, “Connections,” and finally a vital section titled, “Integrated Technologies” that illustrates how various technologies can be integrated with virtual realities in order to provide the most effective learning environment.

Virtual realities give the educator another tool to use in the design, development and implementation of educational programs. We must always remember, however, that the tool must fit the job and that we must never become so enamored of the tool that we lose sight of the job we need to do. In other words, the educational need should drive the development of the technology; we should not force our educational needs into a tool just because it exists. With that in mind, we should know when to use virtual realities, when to use other high technology tools, and when to use a chalkboard.

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