

## Challenges and Opportunities in the Virtual World, 2009



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April, 2009



A virtual world is a computer-based simulated environment intended for its users to inhabit and interact via virtual characters, or avatars. These avatars are usually depicted as three-dimensional graphical representations, although other forms are possible. Users are typically able to manipulate the look of their avatar to show feeling or facial expressions to other users. Additionally, virtual worlds simulate rules based on the real world, with the goal that users will feel like they are actually in the simulated environment (and have a telepresence type of experience). Currently, the most popular worlds are based on games, but other successful worlds that aren't based on a specific activity, such as Second Life, also exist.

As these worlds have developed, several business opportunities have arisen. The first opportunity that businesses acted on was advertising, and many large organizations have now experimented with some type of virtual world advertising. Many of these advertisements have been 3-D billboards or structures that users can view or visit while navigating through a world. Some of these advertising-based structures even contain 3-D representations of products so that users can browse virtual items. Many of these initiatives received significant press attention in the beginning stages of organizational use of virtual worlds, but their success has been limited over time. As virtual world advertising became more commonplace, businesses found that, in general, regular users were ignoring static structures in the worlds and that they were focusing more on their interactions with other users.

After realizing that users were drawn towards virtual interactions with other users and not with advertising-based structures, businesses started to look at using virtual worlds to support collaborative processes, both for external and internal purposes. Recently, organizations have been particularly interested in experimenting with training and learning based collaborative activities.

Virtual world training initiatives typically contain 3-D simulated organizational settings, and they involve users in interactive activities in these settings while providing real-time support. Researchers have found that participants find this type of training engaging and that 3-D visualization helps individuals retain concepts. Further, many participants have reported that they are more able to focus on training in these settings than in non-experiential training settings.

Meetings are another collaborative activity that organizations have begun to test in virtual world settings. Initial experiments have found that virtual world meetings can be more effective than other types of virtual meetings (such as phone or instant-messaging meetings) due to the fact that the use of avatars can remind participants who is present in a meeting as well as allow for the transmission of nonverbal cues (if participants manipulate their avatars effectively). Another potential benefit is that some individuals are more creative and participative in virtual meetings than in traditional face-to-face meetings.

Unfortunately, virtual worlds' viability as collaboration platforms has been hindered by unreliability, a lack of interoperability with traditional productivity software, and other technology hurdles. Thus, changes are needed before organizational virtual world collaborative activities exit the experimental phase. One of the largest obstacles has been the difficulty for average users to operate their avatars in virtual worlds. As with all software, the interface is one of the most important parts of equation. If it is too laborious for the end user, it can create a disincentive for individuals to use it effectively. Interfaces have been evolving, but they have been slow to change, and significant progress is still needed.

Further, the time and effort involved with creating different avatars for different systems has inhibited most users from trying more than one world. A likely move towards more open systems will eventually allow individuals to use the same avatar in multiple virtual environments. On Web 2.0 social networking

sites today, people upload digital photos to represent who they are. A similar concept will likely be true for avatars. People will create avatars (and perhaps even objects for use in virtual world demonstrations), using easy-to-use 3-D content creation tools, and then they will upload these avatars and objects to the various virtual worlds they frequent. Once virtual worlds become more user-friendly and inter-operable (due to changes like these), their use will likely skyrocket.

After their initial experiments in Second Life, many companies lost their enthusiasm for virtual environments. Many companies rushed into these worlds expecting to find a new marketing channel and quickly found that their in-world presences were unnoticed by users. However, some organizations have realized that virtual worlds still have the potential to be potent workplace tools, particularly for collaborative activities. A number of small case studies reveal that virtual worlds have been used effectively for these types of business activities; however, as described, the technology is still immature and not ready for mainstream use. Regardless, the costs of establishing a small presence in a world such as Second Life are low, and experimenting now may reveal unknown benefits. Additionally, the payoff could be big later, once the masses arrive.