

Chapter 14

Virtual Worlds for Collaborative Meetings

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ABSTRACT

Whether businesses will make use of virtual worlds for meetings, training, and events is not just an academic question. Use of existing and newly developed virtual worlds is expected to grow for the near future among all age groups. International companies are entering a variety of virtual worlds to promote collaboration among their geographically dispersed workforce for training and meetings, as well as for business-to-business and business-to-consumer applications with internal and external audiences. These worlds provide engaging experiences that are enjoyable and memorable. This chapter addresses opportunities and challenges in conducting meetings in virtual worlds. It covers the evolution of technology for virtual meetings, a theoretical analysis of telepresence in virtual meetings, case studies of companies utilizing virtual worlds as meeting venues, and practical considerations for conducting virtual meetings and events.

INTRODUCTION

The evolution from videoconferencing to internet technology, particularly in virtual worlds, has provided more affordable and efficient technology for organizations to “meet” and communicate from multiple locations for lectures, workshops,

conferences, staff meetings, training, and other business-to-business and business-to-consumer applications. Virtual worlds, such as Second Life, are predicted to grow in popularity in the near future among all age groups (Gartner, 2007; KZero, 2009), because they let organizations create environments where people can interact in ways that work with existing work flows. They have opened up unique communication platforms

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for organizations to connect “face to face” with the online world’s growing number of residents through events, demonstrations, exhibitions, market research, online distance learning, and other collaborative platforms. Today’s virtual worlds emulate elements of experiences that were once considered pure fantasy—from the holodeck, an entertainment room with holographic simulations in *Star Trek*, to the metaverse, a futuristic virtual world in Neal Stephenson’s novel *Snow Crash* from 1992. Teleporting is a reality in *Second Life*, where avatars can be beamed instantly to different locations. Collaborations for businesses, nonprofits, and governments can be realized with virtual face-to-face transactions in new three-dimensional immersive worlds.

In this chapter, we review technology from picture phones to virtual worlds used to facilitate collaboration in organizations with geographically distributed members. We then describe one particular virtual world, *Second Life*, which has been used for many types of meetings and events since its founding. Four case studies based on interviews with a variety of stakeholders describe elements of the process. We conclude with practical considerations on how organizations can select the most appropriate virtual world venue, provide the necessary training and resources for participants, establish guidelines for effective collaboration, address privacy and security issues, document and promote in-world activities, and utilize unique collaborative opportunities.

EVOLUTION OF VIDEOCONFERENCING TO VIRTUAL WORLDS MEETINGS

Videoconferencing is defined as “an electronic form of on-line audio and visual communication which overcomes the problems of physical distance while reducing the need for travelling” (Panteli & Dawson, 2001, p. 89) and it has enabled people to meet visually without being physically

present. These systems allowed for synchronous communication, similar to actual face-to-face meetings.

The Picturephone was an early attempt by AT&T to help people meet virtually; it was introduced in 1956 and later showcased as the improved “Mod 1” Picturephone at the 1964 World’s Fair in New York at a futuristic Walt Disney company exhibit. In 1970, AT&T introduced a commercial application for the Picturephone, but the product was not a financial success because of its high cost, bulky size, small screen, and unfriendly user controls (AT&T, 2010a). In a collaborative AT&T project, NASA used early satellite transmissions for videoconferences and television feeds from astronauts (AT&T, 2010b). Affordable satellite technology in the 1980s created opportunities for conference facilities to use videoconferencing for global meetings with physically large and costly systems.

The growth of personal computers and the commercialization of the internet opened the way for a variety of PC-based videoconferencing systems, such as IBM’s PicTel in 1991, Apple’s CU-SeeMe in 1992, and Microsoft’s NetMeeting in 1996. Many new developments provided higher quality images that were almost television quality for much less money (Carey, 2002). Journalists used videoconferencing on cell phones to report live from the front in Afghanistan in 2001 (Roberts, 2004). High-end telepresence systems introduced in 2007 claimed to improve quality by reducing jerky images, sound delays, and other annoying irregularities. However, these systems can cost over \$300,000 for a room-based system (Stafford, 2008).

Systems over the last few years have become smaller and portable, and some are even desk-based to work with the user’s own computer. More users with broadband connections to the internet have spurred innovations in webconferencing to share presentation slides and other files, write notes on a shared whiteboard, watch streaming video, conduct polls to solicit feedback, and

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