CHAPTER 7 TELECOMMUNICATIONS, THE INTERNET, AND WIRELESS TECHNOLOGY

CASE 1

Telepresence Moves Out of the Boardroom and Into the Field

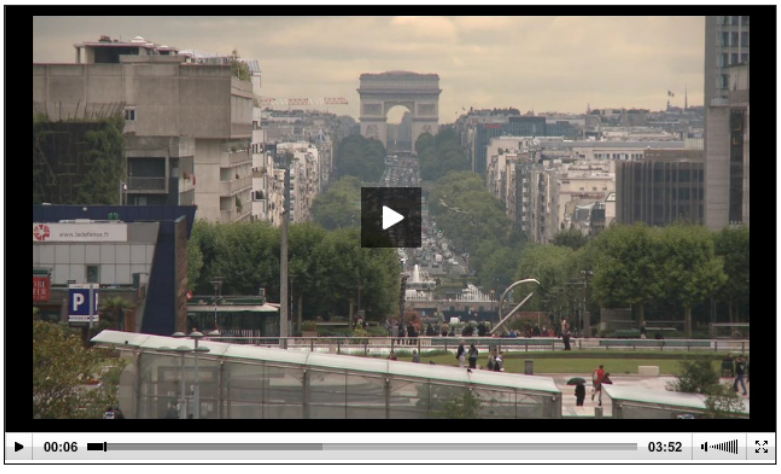
(a) TelePresence: In-Person Experiences for All

VIDEO CASE

URL http://www.youtube.com/watch?v=rcfNC_x0VvE; L= 3:59

(b) AXA Cuts Costs and Carbon Emissions with immersive video collaboration

VIDEO CASE



URL http://www.cisco.com/en/US/services/ps2961/AXA_video_ps2961_Services_Success_Story_ps7072_Services_Success_Story.html; L=3:52

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SUMMARY Telepresence is one of the fastest growing business-technology applications. It combines the power of global, high-speed, broadband Internet networks with local video, audio, and processing power to create effective meeting and decision-making environments for managers at a fraction of the cost of face-to-face, in-person meetings. As the cost of telepresence declines, it is being deployed more deeply and broadly into business firms, involving a much wider range of employees and decision-making situations.

CASE Telepresence is the effort to create a digital environment using video and audio technologies which mimic key features of real-world interactions with people and objects. Telepresence is not the same as virtual reality because the actors involved in telepresence are human beings, not avatars. Telepresence is more than just video conferencing because it has a more immersive quality. The primary use of telepresence today is to support group meetings that allow participants to be physically in different places but to interact in a realistic environment as if they were all in the same meeting room. Other uses include the use of telepresence to control and manipulate robots and objects in manufacturing and field settings where the use of humans would be dangerous. Military uses include control over robotic "drone" aircraft, and inspection of nuclear submarine reactors.

Telepresence, once thought to be the stuff of a distant future, has definitively arrived. First discussed as a technical possibility in the 1960s, and earlier in some novels, telepresence today is thriving thanks to broadband Internet service that has continental and global reach, field-of-view cameras that can capture a 360 degree visual experience; multiple large monitors to display the experience; realistic wraparound sound systems; and increased computing power in the form of servers and client PCs. Telepresence systems that used to cost millions of dollars now cost thousands of dollars.

Business firms invest in telepresence systems and technologies for a variety of reasons including reduction of travel time and expenses, reduction in carbon emissions caused by unnecessary travel, improvements in worker productivity that result from lowered meeting and collaboration costs, and not least, improvements in employee quality of life. With telepresence technologies, employees do not waste time standing in lines at airports or spending hours on flights or being away from their families for extended periods.

For high-quality telepresence, firms must make large investments in special meeting rooms, monitors, servers, and software to develop telepresence applications. This generally means that only Fortune 1000 companies can afford the top-of-the-line tools of Cisco's telepresence suite. But prices are falling, so even some school districts can afford the infrastructure needed for telepresence. Schools and colleges are also making increased use of telepresence. Schools such as the Fontana United school district in California, which has 41,000

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students at 40 school sites spread out over 40 miles and split over two major freeways, are benefiting from the introduction of telepresence technologies via a pilot program with Cisco.

Telepresence systems aimed at corporate customers are sold by Cisco , AT&T, Digital Video Enterprises (DVE), Polycom, HP, , Telanetix, Tandberg, BrightCom, LifeSize, and Teliris. Prices range from tens to hundreds of thousands of dollars. These systems include multiple microphones, speakers, high-definition monitors, cameras, and often dedicated networks and custom-made studios. They strive to be as transparent to users as possible by providing life-size videos, imperceptible transmission delays, and user-friendly interfaces.

AXA: Global Financial Services

AXA provides financial services such as insurance, banking, and savings and retirement programs to individuals as well as businesses, both large and small. With operations in 61 countries that serve more than 95 million customers worldwide, AXA wanted to better leverage the collective knowledge and experience of its 214,000 employees. In addition to promoting collaboration and sharing of best practices, the firm wanted to reduce the travel burden on executives, and the carbon footprint of the firm, as well as improve the productivity of executives who were constantly moving between different AXA offices and client sites. AXA possessed a basic, older video conferencing system, but it was difficult to use and plagued by performance problems that made interactions stilted and awkward. The challenge facing the firm was to identify technologies and vendors who could deliver a workable telepresence system that could be rolled out across its major operations centers.

AXA began by building two beta Cisco Telepresence systems, one in New York and the other in Paris. Early users, mostly senior executives, were impressed. This early success led to the development of a global network of 43 telepresence centers in 14 countries. A vendor partner, Orange Business Services, contributed expertise for the implementation. So far, AXA has hosted 43,000 meetings, reduced the number of executive trips by 20,000, and saved 23,000 tons of carbon emissions. In the first three years the firm expects to save about $130 million.

VIDEO CASE QUESTIONS

1. List and discuss briefly the benefits claimed by Cisco for its “In-person” experiences using telepresence.
2. AXA is a global financial services firm. Describe why they invested in telepresence.

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3. Why does AXA need special rooms dedicated to telepresence? Why can't conferences take place at the desktop?
4. In the past, work was organized into central buildings located in central locations (like cities) in order to facilitate face-to-face interactions. What impacts might telepresence have on the organization of work? How could you use these tools to organize work on a global scale with actually building physical facilities in remote locations?