



Business Value of Telepresence

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Introduction

Telepresence is what videoconferencing was meant to be: reliable, highly interactive, easy to operate, resulting in a natural meeting with transparent technology and an emphasis on human factors.

When videoconferencing was first commercially introduced in the early 1980s, it was compared to a television and telephone. Users thought, like a television, when one buys a videoconferencing system it does not need to be replaced for at least 15 years, and when calls are made they go through 99.9% of the time, like telephone calls. In reality, videoconferencing should have been compared to a personal computer and cell phone. It needs software updates, it may need to be rebooted, and calls do not always go through and stay up until the user hangs up. The expectation levels in the minds of the users were poorly set and never reset. As a result, videoconferencing systems are often sitting in a corner collecting dust because users have not been satisfied with their performance. Enter telepresence.

The term “telepresence” was initially introduced over a decade ago to describe a visual communications solution where the audio, video and physical elements of a meeting room environment are designed to create an immersive experience. The intent is that this immersive setting allows participants to focus on the agenda of the meeting, rather than technology. Telepresence is evolving to mean any high quality video communications, and not just one in an immersive room environment. But, what is the business value of telepresence and how is it better than traditional high-end videoconferencing?

Comparing Telepresence and Videoconferencing

Telepresence is viewed as more effective than videoconferencing because it is more reliable, easier to use, offers high quality audio & video, has facilities that are environmentally treated, and offers robust network transport. Additionally, little training is required to participate in a telepresence meeting. It is like walking into a regular conference room and speaking with other people, even though they may be located around the world. Telepresence solutions must be transparent to allow users to forget about the technology and focus on their discussions. This transparency is accomplished by utilizing telepresence systems with strong managed services behind them.

A closer look at what makes telepresence different from traditional videoconferencing can be noted by how the following are handled: audio, video, document sharing, control systems, room environment, and transport.

Telepresence offers the following advantages:

Audio quality

Telepresence places more emphasis on the nuances of proper audio communications.

- Talk at the same time with no clipping
- Lack of echo
- Ability to reproduce low & high volume levels
- Ability to reproduce left and right conversations in order to identify the speaker
- DVD or HD quality true duplex audio & Dolby-Digital sound

Video quality

Video quality is improved as more attention is given to eye contact and camera placement.

- Crisp, clear images
- Low latency (little waiting time) resulting in feeling the interaction is real
- Realistic eye contact and inclusion of non-verbal cues (vectoring)
- Consistently maintain eye contact
- Allow maximum number of individuals to appear on each screen
- Proper camera placement and angles to ensure sight lines for all users are maintained.

Document sharing

Users have the ability to easily share whatever they are used to sharing with others.

- Use whatever tools the attendees wish
- Total and equal access to information for everyone
- Ease of use (“plug and play”)
- High level of quality for viewing/reviewing materials
- Sense of “sameness” regarding user experience

Control Systems

Users do not have to worry they will not know how to operate the system or might break it.

- Minimal user control
- Option of vendor or user control
- Function-oriented

Room Environment

Attention is given to all elements of a room to ensure optimized meetings.

It is also important to realize that a telepresence installation can be flexible to meet specific customer needs. In some instances there will be only minimal room treatment, and in other instances there may be no room treatment. It is important to remember that any telepresence connection will only be as good as its weakest link. Therefore, be sure the sites connecting offer high quality audio and video.

- Room dimensions
- Furniture and equipment placement
- Table shape
- Room acoustic treatments
- Fabric selection
- Colors
- Lighting design & placement
- Number of participants per room
- Intent of usage – the conference room of today, easy interaction
- User centric environment

Transport

The amount of bandwidth and its flexibility ensure a call goes up when planned and stays up for the duration of the meeting. Network choices can be customer provided or offered by the vendor or a carrier. Security features are also available to ensure calls that are sensitive in nature can be made with the assurance the conversations are secure.

- Robust
- Flexible
- Interoperable
- Global Network Coverage
- Architected using IT standards

The advent of telepresence means users have high expectations for quality, performance, and service. The use of telepresence also allows vendors to reset the expectations in the minds of users and demonstrate the true value of the technology.

The Business Value of Telepresence

Because organizations need to make choices regarding how to leverage their global resources without undue risk, the cost of travel and its inconvenience is escalating, and there is greater interest and emphasis on environmental issues, telepresence is being viewed as a critical technology for use by organizations globally. In a recent TRI study¹ users of telepresence technology commented on the value telepresence offers to their organizations:

¹ Telemanagement Resources International private research studies 2004 - 2008

The seamless nature of the technology, coupled with a built in economic model that makes sense to even occasional users, insures the success of telepresence.

Using telepresence allows us to save on travel costs and offers a better life style to our employees.

We deployed telepresence systems because we found business disruptions and productivity to be the key issues.

People are starting to travel less because they can connect with colleagues across the globe at a moment's notice.

The key benefit of using a telepresence system is its ability to allow people to talk in a natural style. Our conversations are very fast. With traditional videoconferencing there was a need to start and stop conversations to be sure each site was heard.

Clearly using telepresence has proven to provide a variety of benefits to organizations. Other values of telepresence include:

- Improve corporate governance/decision making
- Promote global collaborative research & development
- Ensure business continuity
- Travel cost avoidance
- Provide work-life balance

Additionally, telepresence is being viewed as a technology that can enhance organizations commitment to environmental issues including the reduction of greenhouse gas emissions (GHG) as use of telepresence and the avoidance of travel will help reduce the consumption of CO2 emissions. As a result of a law President Bush signed in 2004, companies can depreciate capital expenditures more quickly, which includes equipment used for broadband deployment, i.e. the networks used by telepresence technology. This will result in environmental responsibility being more financially attractive.

The time for telepresence is now. Costs are dropping and functionality is increasing. Many organizations now understand the value of telepresence and are embracing the technology as a smart way to work efficiently and effectively.

A Telepresence Leader

Founded in 1999, Teliris is a leader in telepresence technologies, as they are now in their fifth generation of telepresence offerings. Teliris is not a “product” company. Instead, it defines solutions by working backwards from clients’ business objectives.

Teliris VirtuaLive Telepresence is the most immersive, advanced telepresence solution on the market today, accommodating up to 28 participants and from three to eight screens per room.

Teliris has recently announced a telepresence product suite that makes telepresence accessible to small, medium and large organizations. All products are built on the core of Teliris' world-renowned VirtuaLive™ telepresence technology the most natural, immersive, and intimate meeting environment available. The solutions are packaged with a fully managed service including a 99 + percent reliability guarantee.

The Teliris Personal Telepresence solution, designed for single users and executives, is the most affordable single-screen true telepresence system available with a list price of \$32,500. This solution offers broadcast quality, HD video at 30/60 frames per second, a 40-inch HD display, integrated microphone, advanced audio processing system, full collaboration through picture-in-picture (PIP), and features PAS, Teliris' unique positional awareness system for proper seating.

The Teliris Express Telepresence solution is a two or three screen system that fits into any existing conference room and accommodates four to six participants. The solution features broadcast quality, HD video at 30/60 frames per second, unique 46-inch HD telepresence displays, pod microphones, and advanced audio processing system. The Teliris Express Telepresence solution requires no room build-out and is compatible with Teliris' unique collaboration options for ultimate flexibility. Price ranges are from \$99,000 to \$125,000.

Both Teliris Personal Telepresence and Teliris Express Telepresence solutions are fully compatible with all Teliris VirtuaLive™ environments and, through the Teliris Telepresence Gateway, interoperates with traditional videoconferencing as well as other standards-based telepresence systems. Additionally, both solutions incorporate Teliris' patented Virtual Vectoring technology that ensures accurate eye-lines for single and multiple location meetings.

Teliris also offers Custom Telepresence, the only solution available that allows telepresence features and capabilities to be integrated into new environments, such as R&D labs, conference halls, large meeting rooms, factory floors, and oil exploration platforms, among other uses. Vendor differences: how eye contact is handled, support for multipoint, interoperability with non-telepresence systems, support for data collaboration, initial and ongoing system cost, range of available support services.

Telepresence is what Teliris is all about. The firm offers flexibility, innovation, reliability customer hand-holding, and cost effectiveness.

The Future

Telepresence is the technology that makes visual communications a reality. Environmental and economic issues will continue to necessitate we find more effective ways to work and communicate with others globally. Telepresence rooms are fast becoming no more complex than an average conference room, but far more robust in the features offered. The technology is becoming subservient to the human being. It is important to look at the entire picture – technology, service, and support – to ensure success with telepresence and adoption of a technology that truly means meeting and collaborating as if being there in person. The business value for telepresence exists for all industries. Now is the time to adopt the technology and integrate it with current work processes. Telepresence works.

S. Ann Earon has been a researcher and consultant in multimedia communications for 26 years. She holds a Masters in instructional technology and educational administration from Northeastern University, and a Ph.D. from Boston College in business, speech & communications, and education. Dr. Earon is the Founding Chairperson of the Interactive Multimedia & Collaborative Communications Alliance (IMCCA), the non-profit industry association for conferencing & collaborative communications. She can be reached at AnnEaron@aol.com.