

Evaluation of Virtual Meeting Technologies for Teams and Communities of Practice in Business Environments

Earon Kavanagh, PhD

University Canada West Business School

Lecturer on Organizational Behavior, Sociology, Psychology

earonkavanagh@gmail.com

<http://www.earonkavanagh.ca>

Abstract

This paper is an evaluation of virtual meeting technology, specifically video-conferencing in common use today. Virtual Communities of Practice have a need for such technologies, as do virtual teams. Several well-known systems are evaluated from my professional experiences with them. Central to my evaluation is my concern about how well they enhance inter-personal communication through the speaker's awareness of the listeners' nonverbal cues, and how the conferencing system allows the speaker to tailor his/her utterances to those cues. In my analysis I have intertwined the communication value of the video-conferencing with the overall business value of using such systems. Recommendations are made for incorporating such systems into the firm's IT infrastructure and how to evaluate if there is a business value in making such a purchase.

Key words: communication, business value, video-conferencing, telepresence, virtual meetings.

In the past decade we have witnessed a surging interest in using virtual meeting systems, and the standard is known as video-conferencing. Today, it is not uncommon to be invited to attend a Webex meeting by one's association, or as part of one's team or university program. The touted business argument for such systems is that they can save both time and travel: it's easier to get a group of people in a "virtual meeting room" from

various points on the earth than require them to travel long distances. This can save time and money, at least in theory. And the fact is that I have indeed benefitted from attending such meetings and felt grateful that I could attend them from a café, in my own living room, or somewhere else. Another advantage is that video-conferencing meetings can be recorded and reviewed at later dates. Yet, according to Laudon and Laudon (2010: p. 10) most companies have deemed video-conferencing as a poor substitute for face-to-face meetings. The question is, given that video-conferencing is now part of the business and learning organization zeitgeist, why is it deemed by many businesses as a poor substitute?

Do saving time and money make for wise decisions? An evaluation of video-conferencing systems as smart management needs to evaluate more than the fact that we can get the participants into the virtual meeting. What also needs to be evaluated is the relational component. For example, how well do persons hear each other? Or what are the effects of not being able to see who we are talking to? Given that non-verbal communication and diversity of culture play an important role in how well we understand or misunderstand each other in face-to-face meetings (Varner & Beamer, 2005: pp. 179-202), what are the chances that video-conferencing will not create further communication problems due to the factors causing this technology to be considered as a poor-substitute for face-to-face meetings? The authors state that these nonverbal behaviors include eye contact, tone of voice, facial expressions, hand gestures, arm movements, posture, and timing in spoken exchanges. Peoples of other cultures (ie, collective societies) might have a different understanding of self than we have in North America and Western Europe, so the meaning inherent in their everyday usage of language may be different than ours (see Kavanagh, 2013), or what Hosking (2002: p. 35) refers to as multiple logics of self (and interpretation).

This paper will indirectly address several questions that can help make an evaluation of the use of video-conferencing. The questions, written below, are posed by the textbook authors (p. 11), and will help make an evaluation of video-conferencing systems.

- 1) Statement - most companies have deemed video conferencing a poor substitute for face-to-face meetings – provide comment (see textbook, p. 10).
- 2) One consulting firm has predicted that video and Web conferencing will make business travel extinct. Do you agree? Why or why not?
- 3) What is the distinction between video-conferencing and telepresence?

- 4) What are the ways in which video-conferencing provides value to a business? Would you consider it smart management? Explain your answer.
- 5) If you were in charge of a small business, would you choose to implement video-conferencing? What factors would you consider in your decision?

This evaluative paper argues that for video-conferencing to be smart management it must be cost-beneficial, and that it must function well. First, will the costs involved save the expenses incurred by attending face-to-face meetings? After all, this is the widely touted business value proposition. Secondly, do these systems function well enough to achieve that quality achieved in face-to-face meetings? The key consideration for the second question is does the system function well enough for participants to be able to assess non-verbal communication cues of others and tailor their utterances to their audience members?

I will begin my evaluation of video-conferencing systems by providing a short overview of video-conferencing systems, and then mention some of the more popular systems currently in use. Following that I will share my own professional experience of these systems, and provide an evaluation of each based on same experience. My presentation of each system will provide the name, the business context in which the system was being used, the date, my impressions of the system, and my decision for action on whether to use in the system in future, not use it, or monitor its development and re-evaluate it again in the future. I will then make some reflections on non-verbal communication and struggles that occur when participants are unable to assess non-verbal cues; these reflections include some findings from my PhD research in organizational studies, of consultants and other change agents in their communities of practice. Following that I will discuss telepresence, the high end video-conference systems that seek to have the user feel as though they are in a room with other people but in a different location than their own. From there I will carry out a discussion utilizing the key questions posed in the introduction; these questions also explore the business value of using such technology.

Overview of Virtual Meeting Systems

A virtual meeting system works through what is commonly known as "video-conferencing". Each participant, often located in a different city or country, connects to a central server using the proprietary software of the video-conferencing company. The connection is often made through the Internet. Each participant uses his/her computer

camera and audio functions, and these are usually monitored and controlled through the video-conferencing software. Usually a facilitator guides the process and controls who can speak. This is also done so that there is less sound feedback from people's microphones. For example, the facilitator can ensure that all microphones are turned off except the microphone of the current speaker.

The authors of our course textbook sum up commonly held evaluations of the virtual meeting technology. They state that the systems have been plagued by "poor audio and video performance", and this has often to do with the speed at which streaming occurs (p. 10). This problem has made the technology problematic, except for those companies who could afford the high-end version of virtual meeting technologies, known as "telepresence" (p. 10). Importantly, the authors state that most companies have concluded that video conferencing is a poor substitute for face-to-face meetings. Nevertheless, the video-conferencing systems continue to grow at a fast speed, at an annual rate of 30%, and continue to improve.

Well-known Video-conferencing Systems.

Some of the well known systems that we have become familiar with are WEBEX, GO TO MEETING, SKYPE, ELUMINATE, and more recently GOOGLE HANGOUT. Lesser known and expensive virtual meeting systems are those supplied by information systems companies such as Cisco, HP, and Polycom. Laudon and Laudon (2010, p. 10) state that such systems can cost as much as \$500,000 (p. 16). The authors cite estimates from the Global e-Sustainability Initiative and the Climate Group, which state that virtual meetings could save up to 20% of business travel.

My Professional Experience with Video Conferencing.

My experience with video conferencing is significant, and has occurred either as a business or psychology student or in professional training and development contexts in which someone puts on a training and sets up the meeting through a video-conferencing system. Uses of such systems can be considered "small business use". The systems used by universities I attended were usually an economical version of Eluminate. Below I list the experience I have had with several video-conferencing systems and evaluate them, based on my experience as a user.

Go to Meeting.

Number of meetings attended – 2

Context – Professional training in organization development

Date - 2013

My impression with this virtual meeting system – Participants had to disconnect their video in order to have good reception. I felt uncomfortable speaking: I could not tell if people heard me and I could not see them to monitor how they were receiving my communication. I did, however, use the type text function located in a side window, and this allowed me to interact with others somewhat.

Action decision on Go-to-Meeting – I would not use this system as it is important for me to have a sense that I am in the room with the other participants, have good reception, be able to see and hear other participants, and be able to evaluate how others are receiving my communication on a moment to moment basis. At this time I would not use Go-to-Meeting for important meetings. However, I would continue to monitor this system’s development and perhaps re-evaluate it in the future.

Eluminate.

Number of meetings attended – 40 plus

Context – Graduate certificate programs at Royal Roads University, and University of Calgary

Date – 2010, 2011

My impression with this virtual meeting system – Participants had to disconnect their video in order to have good reception. I felt uncomfortable speaking: I could not tell if people heard me and I could not see them to monitor how they were receiving my communication. I did, however, use the type text function in the left of the screen, and this allowed me to interact with others somewhat.

Action decision on using Eluminate – I would not use this system as it is important for me to have a sense that I am in the room with the other participants, have good reception, be able to see and hear other participants, and be able to evaluate how others are receiving my communication on a moment to moment basis. At this time I would not use Eluminate for important meetings. However, I would continue to monitor this system’s development and perhaps re-evaluate it in the future.

Webex.

Number of meetings attended – 1

Context – Meeting with coaching team and client team for Graduate certificate program in Executive Coaching at Royal Roads University, evaluating and wrapping up executive coaching assignment with the executive team at World Vision Canada.

Date - 2010

My impression with this virtual meeting system – Participants had to disconnect their video in order to have good reception. I felt uncomfortable speaking: I could not tell if people heard me and I could not see them to monitor how they were receiving my communication. I did, however, use the type text function, and this allowed me to interact with others somewhat. I did note that the sound quality was excellent on Webex and voices came in loud and clear without any static or hum.

Action decision on using Webex – I would not use this system as it is important for me to have a sense that I am in the room with the other participants, have good reception, be able to see and hear other participants, and be able to evaluate how others are receiving my communication on a moment to moment basis. At this time I would not use Webex for important meetings. However, I would continue to monitor this system's development. I was very pleased with the sound quality, and the ease of getting online with the system.

Skype.

Number of meetings attended – 20 plus

Context – Organization development project with community clients, coaching of some clients, and presentation to a recent conference of the European Organization Development Network

Date – 2010 - 2013

My impression with this virtual meeting system – Participants had to disconnect their video in order to have good reception. I felt uncomfortable speaking: I could not tell if people heard me and I could not see them to monitor how they were receiving my communication. I did, however, use the type text function, and this allowed me to interact with others somewhat.

Action decision on using Skype – I would not use this system as it is important for me to have a sense that I am in the room with the other participants, have good reception, be able to see and hear other participants, and be able to evaluate how others are receiving my communication on a moment to moment basis. At this time I would not use Skype for important meetings. However, I would continue to monitor this system's development.

Google Hangout.

Number of meetings attended – 10

Context – Context – CityU MBA program, team meetings

Date – 2012

My impression with this virtual meeting system – Participants had to disconnect their video in order to have good reception. I felt uncomfortable speaking: I could not tell if people heard me and I could not see them to monitor how they were receiving my communication. I did, however, use the type text function, and this allowed me to interact with others somewhat.

Action decision – I would not use this system as it is important for me to have a sense that I am in the room with the other participants, have good reception, be able to see and hear other participants, and be able to evaluate how others are receiving my communication on a moment to moment basis. At this time I would not use Google Hangout for important meetings. However, I would continue to monitor this system's development.

Understanding Each Other Is a Starting Place to Good Business

My main issue with the above virtual conferencing systems is that we could not easily use the video. This prevented me from seeing whom I was talking to. It made it very difficult to assess non-verbal cues and determine whether they could understand me or were following along with whatever I said. This made me feel very uncomfortable. Below I provide some commentary on the importance on non-verbal communication for business dealings.

Understanding each other is a start to good business dealings. The above is an assumption with which I go forward with in this evaluation. Yet, understanding each other is often the most complex undertaking and needs to be attended to throughout a

business relationship. The Japanese are well versed in this principle. Relating well is a central component of achieving desired outcomes in business dealings, and our conversations are central to achieving good relations (Kavanagh, 2002: p. 223). In short, a central component of organization is our conversations and what outcomes they produce by our joint action (Kavanagh, 2008).

The Internet provided great opportunities for business organizing. It started with online communities of practice in business, consulting, education and other areas (see Kavanagh, 2002, 2008). These communities used email to communicate in sometimes long discussions that could involve as many as 30 participants and go on for a week. However one of the core problems that emerged were people's challenges in assessing nonverbal cues; these challenges called for increasing our abilities to ask questions when we misunderstood each other, and increasing other relational skills (p. 224). A list of these skills is found in Kavanagh (2008: pp. 230-236). For researchers such as myself, video-conferencing was going to solve these problems, for the conversations would occur in real time. Participants would see each other and hear each other. However, what we did not think of was how well the streaming audio/video used in video-conferencing functioned. It has been common in video-conferencing calls to unplug one's video in order to get good sound. What this often creates is a scenario in which we cannot observe another person's non-verbal cues, making it more difficult to assess how well we are coming across.

In my PhD research at Tilburg University I studied several online communities over several years. The communities were organization development consultants, educators, and family therapists, and these fields are considered to be the experts of group communication. What I discovered was that the inability to assess verbal cues was the central cause of conflict in each professional community (Kavanagh, 2008).

Telepresence

Telepresence may be the technology that allows people to have virtual meetings that are devoid of the above-mentioned communication problems. It is considered the top of the line in video conferencing, and is supplied by Cisco, HP, and others. Laudon and Laudon write that telepresence is a technology which actually strives to allow people to have the experience that they are in the same room with others but a location different than their own. This sounds like it solves the problems that most video-conferencing systems are still struggling with. Companies, such as Accenture Consulting, report that it has

eliminated expenditures for hundreds of international and domestic trips in one single month. Other customers have indicated a dramatic increase in customers due to the ease of reaching them. Cisco has over two hundred telepresence rooms available. However, telepresence is enormously expensive, at least \$500,000. But it is affordable for such companies such as Accenture.

Discussion

From my evaluation of several known video-conferencing systems we can determine why most companies have deemed it a poor substitute for face-to-face meetings. Until these systems improve their technology and ability to work with streaming audio/video these are not good choices for important meetings. On that basis it is doubtful that such systems will make business travel extinct, for the immediate future. However, telepresencing is already proving itself as a contender and a significant cost-cutter and travel-reducer, but only for those companies who can afford it and mobilize it to support business strategy in a profitable manner. If telepresencing could be replicated and marketed at a lower price point this could be the wave of the future.

Video-conferencing, when it functions well, can save time and travel, and help make meetings efficient, for example, presentations for training and sales (textbook, p. 10). I recently presented to a conference on OD in Europe, and this involved a Powerpoint, a talk, and answering questions. However, using Skype I could not see my audience and as a result my effectiveness was about 80%. What might improve efficiency of such systems is a sound IT infrastructure, which allows a good bandwidth for streaming video. Any business that seeks to implement video-conferencing should integrate it into their IT infrastructure planning so that it supports business objectives strategically. The management could start by doing a SWOT analysis and a cost/benefits analysis on bringing in such a system. If they see value in bringing in video-conferencing they could then apply the competitive forces model for IT infrastructure investment (textbook, p. 194-196). Other points that need to be considered are how employees conduct meetings, how much travel do they do (and at what costs), and what technologies they currently use to communicate.

Conclusion

Video-conferencing seems to be here to stay, given its popularity. However, technical problems remain that strongly impact communication. For video-conferencing to be very effective and support strategic business goals, it must effectively function.

Telepresence video-conferencing seems to be a viable alternative, but comes at an exorbitant cost and unaffordable to smaller businesses. Smart management approaches to using video-conferencing include making sure it supports the business strategy, is cost effective, and can be integrated successfully into the IT infrastructure. It must also function well to enhance good relations in generating and maintaining business relationships.

References

- Hosking, D. (2002). E-communications and relational constructionism: Distributed action, distributed leadership and ecological possibilities. In L. Holmes, D.M. Hosking, and M. Grieco (Eds) *Organizing in the information age: Distributed technology, distributed leadership, distributed identity, distributed discourse*. Aldershot: Ashgate.
- Kavanagh E. (2013). Informed by diversity: Relational self/other practice, language performance, and social realities as critical approaches to persons, peoples, and organizations. *Practicing Social Change*. Issue 6, January, 2013
- Kavanagh, E.T.E. (2008). *Communities of practice: A relational view of organizing, power, and possibilities: reflections from a family therapist and consultant* (Published doctoral dissertation). Tilburg University Press: Tilburg Netherlands. Available from Narcis Promise of Science Dutch dissertations and theses database, (Narcis No. urn:nbn:nl:ui:12-3159868)
- Kavanagh, E. (2002). Epilogue: A juxtaposition of virtual discourse communities and organizational life. In L. Holmes, D.M. Hosking, and M. Grieco (Eds) *Organizing in the information age: Distributed technology, distributed leadership, distributed identity, distributed discourse*. Aldershot: Ashgate.
- Laudon, K, & Laudon, J. (2010). *Management information systems: Managing the digital firm, 11th Edition*. Upper Saddle River, NJ: Pearson Education Inc.
- Varner, I., & beamer, L. (2005). *Intercultural communication in the global workplace, 3rd Edition*. Boston: McGraw-Hill.