

7 things you should know about...

Virtual Meetings

Scenario

Matthew is an MBA student at a university in the north-eastern United States. As part of a course on international finance, Matthew and his classmates have been assigned mentors from the international business community—former colleagues of the course instructor from his days as a vice president of a financial services firm. On top of the regular coursework, each of the 25 students in the class is expected to meet with his or her mentor at least once every two weeks, and the students meet as a group with all of the mentors twice during the semester. Some of the mentors are close enough to meet their students in person, but most, including Matthew's, are scattered around the United States, Canada, and Europe.

Matthew's mentor, Georg Heller, lives in Germany. The two use an online tool hosted by the university to conduct virtual meetings. They have to schedule their meetings around the time-zone differences, but the meeting tools are always available, allowing Matthew and Georg to meet at whatever times are convenient for both of them. The virtual meeting environment provides live audio and video and includes an electronic whiteboard where Matthew can take notes. Georg sees what Matthew writes on the whiteboard and can verify that Matthew understands the concepts being addressed. On several occasions, Georg demonstrates an application that his firm uses to predict fluctuations in return rates. Although the text in the application is in German, Georg is able to explain to Matthew how the application works, indicating how changing the parameters affects the predictions, and Matthew sees how he might apply those ideas to case studies he is working on.

The meetings that include all the students and mentors use the virtual meeting environment that the university provides. The students, the instructor, and local mentors meet in a lecture hall on campus and are connected over the Web to the remote mentors. Students take turns demonstrating various financial models they have been working on, getting feedback from other students and mentors on their projects. All of the online meeting sessions are recorded, allowing students to review them at the end of the term. By the end of the semester, Matthew and Georg have established a strong relationship, and Matthew has had interactions with a number of local business leaders, which he hopes will help him to secure an internship during school and possible employment after he graduates.

What is it?

Online virtual meetings are real-time interactions that take place over the Internet using features such as audio and video, chat tools, and application sharing. Participants in virtual meetings use an application—such as Live Classroom from Horizon Wimba or Macromedia's Breeze—to conduct meetings that are similar to videoconferences but with functionality such as electronic whiteboards and polling tools that make the technology increasingly appropriate for education. Although much of the technology that supports virtual meeting tools is not new, the underlying software and infrastructure have matured, allowing higher education to benefit from real-time interaction for distance education programs as well as offering new opportunities for traditional, residential education. Virtual meetings offer a way to engage students in fully interactive, online learning experiences as well as tutoring, office hours, and other activities. Moreover, many virtual meeting applications integrate with course management systems (CMSs), providing a unified learning system without requiring a separate log in.

Who is doing it?

Students use virtual meeting spaces for formal and informal study and to collaborate on group projects. Faculty use virtual meetings to apply key elements of face-to-face learning—including live audio and video and the ability to demonstrate applications in real time—to online learning, either to complement or replace asynchronous learning activities. In residential programs, the technology creates alternatives for on-campus students. For example, some institutions with growing demand for language labs have set up virtual labs, which provide synchronous audio interaction among students and accommodate scheduling demands without the costs of new facilities. In one case, a program has been set up to connect Spanish learners in Canada with English learners in Mexico. Other institutions are using virtual meeting spaces to allow classmates in two (or more) distinct locations to work on team projects throughout the term. In both cases, the technology allows distant groups to interact over the Web, work on shared topics, and build a sense of community even if students are thousands of miles away. Virtual meetings also offer an easy way to bring remote lecturers into a course. Without the time and expense of travel, an expert can address a class from any location, responding to student questions in real time, providing a more compelling learning experience than, for example, reading that expert's writings.

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How does it work?

Online virtual meeting applications use common browser plug-ins and connect through a hosting service, either local or remote. Most applications are platform-independent, allowing users on PCs and Macs and Linux machines to share identical functionality. At appointed times, participants log on to a Web site to join class sessions, participate in online office hours, or take part in other scheduled events. The application window includes a pane that lists current participants, a chat pane for written interaction, an audio/video pane, and a content window. The audio/video pane might only show the instructor or presenter, or it can include other users if they have Webcams. Many applications use voice over Internet protocol (VoIP) for the audio segment, eliminating the need for a separate phone connection. The content pane shows applications from the presenter's desktop, which can include slides, text files, multimedia software, resources from a CMS, or other material for a lesson.

Presenters can be seen and heard in real time by session participants, who can communicate with one another and the instructor through the chat pane, the audio and video, or tools such as a shared whiteboard. The instructor can respond to questions from participants, demonstrate applications, and share access to them in the content pane, as well as manage the layout of the environment. Sessions can be recorded and archived for later access.

Why is it significant?

Online virtual meetings combine several distinct technologies into a single application that benefits distance learners but also presents new opportunities for residential learners. Despite the success of asynchronous learning programs, many students are more engaged when they can hear instructors and lecturers, seek clarification, and communicate in real time. For distance learners, a synchronous environment allows students and faculty to interact as if they were in the same location, providing social connections and creating a sense of community that can be difficult to establish in online courses. Virtual meetings for on-campus learners open the door to greater scheduling flexibility and provide expanded access to distant resources, including groups of other learners and remote experts. In all cases, sharing data and having conversations with classmates facilitates a strong sense of community.

What are the downsides?

As with any real-time event, time zone differences are a concern, one that becomes increasingly complex as the geographical range of participants expands. Connecting students in Canada and Mexico is straightforward, but linking students in North America with an expert in the Middle East, for example, is more complicated. Additionally, while technical problems are always potentially troublesome, in the case of virtual meetings they can be debilitating. Issues such as sound and video quality can be affected by network traffic, improper setup, and other technical parameters. Infrastructure differences among participants can also come into play, both in terms of local hardware and connection speeds.

Faculty using virtual meeting environments have reduced control over the "room" of participants. Even though some tools allow

users to electronically indicate nonverbal gestures, such as raising a hand to ask a question or make a comment, virtual meetings are an approximation of a shared physical space. As such, participation mixes face-to-face and online practices.

Where is it going?

Instructors are becoming more familiar with virtual meeting technology, recording (and pre-recording) classes, as well as bringing personal, online interactions to wider groups of users. Online science courses might use virtual meetings for lab sessions, for example, which are either not possible or not efficient with asynchronous tools. With the proliferation of podcasting and videoblogging, archives of virtual meeting sessions might be converted for playback on portable devices.

Vendors of online meeting applications are working toward greater integration with CMSs, which will make virtual meetings easier to conduct, allowing them to serve a greater number of purposes for teaching, learning, and administration. Sound and image quality will improve. Plus, virtual meeting applications are likely to incorporate more subtle, nonverbal elements of communication (gestures), bringing the experience closer to a face-to-face meeting.

What are the implications for teaching and learning?

Local users benefit from the increased access to remote content experts that virtual meetings provide. Online meeting tools can also save the time it takes to travel across campus or across town to attend a meeting, adding flexibility to student and faculty schedules. As students and faculty become more comfortable with these environments and their potential, practices will evolve leading to more sophisticated interactions. For example, having live video of all participants may add to the "in-person" effect, but instructors are learning to identify times when static icons representing participants are less distracting.

Online virtual meetings create a sense of connection that many learners need. These applications also allow faculty to teach online in a way that largely replicates how they teach in person, making it easier for them to teach in distance education programs. In addition, content that is difficult to explore using asynchronous methods can be taught with real-time tools. Virtual meetings expand educational offerings through distance programs, bring more opportunities to remote learners, and encourage greater numbers of potential students to take advantage of those opportunities.