



Web Conferencing Software

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Overview and Definition

Web conferencing software – also known as webinar, videoconferencing, online meeting, and virtual classroom software – is a web-based technology that allows groups to synchronously communicate online. Most web conferencing software offers collaboration through text, voice and video chat, screen-sharing, collaborative whiteboards, and file-sharing.

Basis for Current Interest

The number of students taking courses online has skyrocketed in the past decade, and throughout that time librarians have looked for ways to make traditional library reference and instructional services accessible to online and distance patrons. Many libraries have developed asynchronous tutorials or research guides, but these cannot be tailored to students' specific real-time needs. Web conferencing offers librarians the ability to offer tailored instruction synchronously online, overcoming many limitations of other models.

Once thought of as an emerging technology geared mainly toward use in the business world, web conferencing has become more reliable and affordable for educational institutions. Some web conferencing software has been designed specifically for the educational community. Combined with the widespread and growing availability of broadband Internet access, web conferencing has become a viable option for offering instruction online.

Current Applications in Academic Libraries and Higher Education

There are many web conferencing tools available that range in price from free to prohibitively expensive for an individual library. Some of the popular options in higher education include [Citrix](#)

[GoToWebinar](#), [Cisco WebEx](#), [Adobe Connect](#), [Blackboard Collaborate](#), [BigBlueButton](#), [FuzeMeeting](#), and [Yugma](#). At most institutions of higher education, web conferencing software is installed or licensed by the college or university, though. Occasionally a library will take the initiative to pay for its own license or use one of the free or open source options available.

Web conferencing software products range from the slick and fully-featured to the bare-bones, but all share a common set of core features. In all of the software listed above, the instructor will be able to share his or her screen with attendees. Sometimes this is limited to displaying one application at a time, but in other cases the entire screen with open applications can be made visible. With some software, the person sharing their screen can give others control of their desktop, which is useful for learning activities where students demonstrate their understanding of a concept or activity. Many web conferencing tools also offer web tours where an instructor can push a specific web page to attendees.

Communication features are always present and usually include voice (VoIP, telephone or both) and text chat. Many offer polling features which allow instructors to ask questions that attendees can answer anonymously. Software providers are increasingly making it possible for users to chat via their webcams, though this is bandwidth-intensive. Some software also offer separate breakout rooms for small group interaction.

Most web conferencing software allow for the sharing and display of files, particularly PowerPoint slides. Collaborative whiteboards are also available. Usually all of the activity in the session can be recorded and viewed at a later date.

In addition to web conferencing software, there are also many free technologies that provide some, but not all, of the core features of traditional tools. Free technologies like [Google Hangouts](#), [TokBox](#) and [ooVoo](#) provide video conferencing functionality where people can chat via web cams, text and/or audio. Tools like [join.me](#) offer simple screen-

sharing and allow other people to control the screen of the presenter. Finally, there are tools like [Skype](#) and [Apple iChat](#) that offer many of the features of traditional web conferencing software, but are limited in the number of people with whom you can collaborate.

In higher education, web conferencing software is used for a variety of purposes including lectures, classroom instruction, office hours, tutoring, focus groups, orientations, student group work, and professional development. It is being used in online programs and courses, and also to supplement face-to-face instruction.

Applications in Academic Library Instruction

Academic librarians have been experimenting with synchronous online instruction for over a decade, but only in the past few years has web conferencing become a truly reliable, and affordable option for mainstream use. Librarians often use web conferencing software to offer synchronous instruction to online classes. Some libraries are also offering workshops on topics of interest to students via web conferencing software. This author has offered Zotero and Mendeley workshops via Blackboard Collaborate and has found that attendance numbers for online workshops often mirrors that for the face-to-face workshops. Student orientations can also be offered online. The instruction is designed to be similar to what is offered in a face-to-face session, but web conferencing software makes instruction accessible to students who can't or don't want to come to the physical library.

Subject librarians often offer individual consultations with students and faculty in their liaison areas. This service can easily be provided online using web conferencing software. Steiner (2011) writes about using online scheduling and web conferencing software to offer online research consultations for distance students. Instead of dealing with scheduling, librarians could also offer set office hours when they will be in their online office space. Like regular office hours, the librarian could easily work on other projects until a student actually entered the virtual room. Steiner highlights the importance of advertising to make the consultation service visible to busy online students.

Online instructional outreach need not be limited to students. Faculty teaching online, especially at a distance, may need an orientation to what the library has to offer. This author offered orientations to library resources for faculty via web conferencing software and found it to be particularly useful for adjunct faculty who weren't familiar with our library and often couldn't make it to campus.

Potential Value

Web conferencing allows librarians to offer virtually the same instruction in the online medium that they offer face-to-face, bringing libraries closer to the ideal of offering equal services regardless of location. It offers a convenient learning option not only for distance students, but also for students for whom coming to the library is inconvenient.

Unlike asynchronous tutorials and research guides, librarians using web conferencing software can tailor their approach to the attendees' needs and can elicit information about those needs from attendees using text chat, polling, or verbal discussion. For those who can't attend a synchronous session, web conferences can be recorded and viewed later by other member of the class or even by other students.

The ability to incorporate interactivity means that librarians can embrace active learning in the online medium. Librarians can poll students, create breakout rooms for group discussions or activities, and allow students to share their own screens or take control of the instructor's screen. Morrison (2012) describes how, while it is more difficult and time-consuming to achieve, a constructivist classroom is possible using web conferencing software. Interactive tools make it far more possible to engage students through online instruction and involve them in the co-creation of knowledge.

Potential Hurdles

For all the convenience web conferencing software affords, the technology can also become a significant barrier to access. First of all, there are the potential difficulties attendees may have in getting the software to work on their computer. Students with low computer literacy, older computers and/or unreliable Internet connections

may have significant problems even accessing the web conference. Once everyone is in the classroom, there may be technical issues with attendees' audio or their ability to see what the instructor is trying to display. These technical issues can get in the way of good teaching. It's considered best practice to have a facilitator who supports attendees with technical issues so that the instructor can focus on pedagogy. However, this is not always feasible.

While it was previously mentioned that interactivity is possible, instructors frequently avoid these features because of the potential for the technology to fail. Instructors in web conferences have stated that they can't cover as much material in an online session as they can face-to-face because of the technology and the need to frequently check in with their students. The lack of body language or facial expression makes it impossible to know if students are understanding the lesson without frequent check-ins. Students may not feel as comfortable interacting in the online medium, also possibly because of the lack of physical cues (Morrison 2012).

Similarly, truly tailoring one's presentation to the audience can be daunting in a web conference. Kear, Chetwynd, Williams, & Donelan (2012) describe the cognitive load that instructors experience when they are dealing with various technical and student communications at once. Concern about this may lead instructors, especially those without experience, to rely on a script.

While web conferencing seems like a perfect fit for online courses, it may not be the case if the course or program is predicated on being asynchronous. In that case, in order to make library instruction required, the librarian may need to offer synchronous sessions that are recorded and then offered to students for asynchronous use. This then removes the interactivity from the experience. In addition, with recordings, student names and their activity during the session are also recorded. This privacy issue should be considered before recording instruction sessions for wider distribution (Riedel and Betty 2013).

Conclusion

Web conferencing software provides libraries the possibility of offering the same types of

instructional services to online learners as are offered to on-campus students. In spite of potential technical issues, there are significant possibilities for increased engagement and library social presence with web conferencing that make it well worth trying. With practice and good planning, developing effective and engaging instruction via web conferencing is quite possible. As the software continues to become easier to use, issues of cognitive load will decrease, making it more possible to take advantage of the full range of interactive features.

References

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Further Readings

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