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Let Me Show You How It's Done! Desktop Sharing for Distance Learning from the D. Samuel Gottesman Library

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Abstract

Due to the proliferation of electronic resources, fewer users visit the library. Traditional classroom instruction and in-person consultations are no longer sufficient in assisting library users. Librarians are constantly seeking new ways to interact with patrons and facilitate efficient use of electronic resources. This article describes the development, implementation, and evaluation of a project in which desktop-sharing software was used to reach out to users at remote locations. Various ways of using this tool are described, and challenges and implications for future expansion are discussed.

Keywords

Desktop sharing; distance learning; virtual reference

INTRODUCTION

With the proliferation of electronic resources, fewer users visit the library. Traditional face-to-face encounters with users during classroom instruction and in-person consultation are becoming less common, but users still need help navigating library resources. Users at remote locations must have their needs addressed in the context of their work at the time problems occur.¹ Negotiating the research process by telephone or e-mail can be frustrating for both librarians and users. Librarians sometimes find themselves talking on the telephone and pointing at items on their computer monitors wishing users could see the same thing. New technologies such as Web-conferencing or desktop sharing can facilitate this process by enabling librarians to communicate with their users in a more interactive way. Exploring new

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approaches to delivering reference services is necessary to find out which services will work in individual libraries.

BACKGROUND

The Albert Einstein College of Medicine of Yeshiva University (Einstein) is a medical school located in the Bronx, New York, and is home to 2,000 faculty members, 750 medical students, 350 Ph.D. students, and 380 postdoctoral investigators. Affiliated with five major medical centers throughout the greater New York metropolitan area, Einstein has 150 residency programs with 2,500 physicians in training.

The D. Samuel Gottesman Library serves Einstein's students, postdoctoral researchers, faculty, staff, and residents at affiliated institutions as well as graduate students and faculty of the Ferkauf Graduate School of Psychology of Yeshiva University.

Electronic journals, databases, and books can be accessed on and off-campus. A proxy server provides access for users who are off-campus. The Reference Department staff offers training on the use of these resources in conventional ways: orientation sessions, regularly scheduled classes, customized small-group sessions, individual instruction, and faculty development workshops in conjunction with the Einstein Office of Education. Additional reference services are provided via e-mail, instant messaging, telephone, and in person. Since many of the Library's users are located at various sites throughout New York City, librarians are faced with the challenge of assisting them at the point-of-need. First- and second-year medical students have busy schedules and limited time and cannot always come to the library when they need help. Third- and fourth-year students, if on wards, may have questions at the point-of-care. Graduate students and researchers spend time in laboratories and classrooms, and work around the clock. Faculty – both clinical and basic sciences – are located at various sites. They frequently need help retrieving information related to patient care or require assistance with research projects. Administrative and secretarial staff work on grant proposals and/or manuscripts and work at different locations throughout the institution. They tend to contact the library for assistance when their department is under deadline pressure, and they are under pressure. Located across the street from the library, Einstein's recently-opened center for genetic and translational medicine houses 40 new laboratories. Many of the new researchers who work in these laboratories might never set foot in the library. They access the resources they need online. Some of the researchers have even told librarians that they are "too busy to walk all the way over to the library." Therefore, librarians are continuously exploring new ways to deliver services to users who cannot, or will not, come to the library for classroom training or for individual sessions. New technologies offer the opportunity for librarians and users to connect and interact in a digital environment, and virtual reference services have become common in most academic health science libraries.² On several occasions, librarians at the D. Samuel Gottesman Library have used teleconferencing technology at a nearby hospital affiliate to provide bibliographic instruction classes simultaneously to residents located there and at another affiliated hospital several miles away. This system linked two conference rooms together. Librarians and residents in the main conference room could see and hear the residents at the other hospital. Residents at the other hospital could hear the librarians and residents in the main conference room, but they could only see the computer screen. Because this teleconference facility was heavily used by other departments in the hospital, sessions had to be scheduled well in advance.

In an effort to extend their reach to remote users, the authors decided to investigate using Web-based, desktop-sharing software as a new tool to connect with their users wherever they may be located, in the laboratory, office, hospital, or at home. The Library received a Small Projects

Award from the National Library of Medicine to implement a distance-training program using desktop-sharing software.

METHODS

Although the librarians had participated in many webinars and Web conferences as audience members, none had any experience as a presenter. A primary consideration in the selection of a Web conferencing product was to find software that was easy to use so that librarians could focus their energies on mastering this new method of teaching rather than learning how to manipulate new software. Other selection criteria included:

1. Setup and configuration that could be done by library staff.
2. Compatibility with a variety of Web browsers.
3. Compatibility with hospital firewalls.
4. Platform independence (Windows, Macintosh, Linux).
5. Web browser independence (Internet Explorer, Firefox, Safari, Opera, Chrome).
6. Quick and easy setup and log-in process for users.
7. Simultaneous connection with multiple users at different locations.
8. License terms that allow software to be installed on multiple staff computers so librarians could launch sessions from the reference desk, training room and their own desks.
9. Customer/technical support that is responsive and helpful.

Many Web conferencing products on the market offer a wide variety of tools and features. These features include desktop sharing (audience members viewing instructor's desktop and/or instructors viewing an audience member's desktop), remote control of mouse and keyboard, chat boxes, audio and video conferencing, slide presentations, annotation tools, file sharing and white boards (see Figure 1 for information on products and features). The goal of this project was to find a reliable and functional tool with minimal bells and whistles.

Three desktop-sharing products were evaluated: Glance® from Glance Networks, Inc.; Webex from Cisco; and Zoho Meeting from Zoho Corp. In the spring of 2008, Zoho Meeting was available for free, Webex offered a basic subscription rate of \$69 per month with a discount for a pre-paid annual plan, and Glance offered a basic subscription rate of \$49 per month with discounts for multiple subscriptions and for a prepaid annual plan.

Zoho was easy to set up, but there often was a lag of 10 to 15 seconds between presenter and audience during screen sharing. Librarians had difficulty ascertaining whether their displays were in synch with what test users were viewing. In addition, one test user had difficulty connecting to the presentation from a Macintosh computer.

Webex was familiar to librarians from their participation in past training sessions as audience members. They liked its interface from the end-user perspective. However, as presenters, a few librarians felt that some Webex features, such as flipping between PowerPoint presentations and desktop-sharing, monitoring the chat queue, and watching attendees connect and disconnect from the attendees display, distracted them from the information they were trying to present.

Glance's strength was the ease of initiating both on-demand and scheduled desktop-sharing sessions.

Both Zoho Meeting and Webex offer VoIP (voice over IP) calling. Glance does not. Librarians were comfortable talking to users over the telephone, and felt that VoIP capability was not a necessity.

Librarians agreed that, of the three products, Glance would most closely simulate the experience of in-person training. Users would be able to speak with a librarian over the telephone and follow along and participate in the demonstration through their Web browsers. Glance software is easy to install and configure. Presenters can initiate sessions by clicking the Glance icon in the Windows Task Bar, or from the Macintosh Dock. The presenter interface is simple. When a session is initiated, the presenters' desktop is framed by a black and yellow striped border. The border color changes to red if a presenter gives a user remote mouse and keyboard control of her desktop. A chime sounds and a small window pops up when a user joins or leaves the session. Three one-year Glance® subscriptions were purchased. Each session allows one librarian to connect to up to 100 users. Having three subscriptions allows three librarians to host their own unique sessions simultaneously. Librarians downloaded, installed, and configured Glance® software on their computers; created a login page for users on the Library's Web site; and named the service "Guided Searching" (see Figure 2).

Librarians initially used "Guided Searching" on the fly, in response to phone calls or instant messages from individual library users needing assistance with database searching, remote access, or using bibliographic management software. The software proved to be ideal for such situations. Questions about specific features of e-resources or bibliographic management programs were easily handled with desktop sharing. Users were able to see the exact steps they needed to follow in order to solve their particular problems and ask questions. Librarians could also give users keyboard and mouse control during a session when that was useful.

After conducting sessions with individual users for several months, librarians decided that Glance® would also be a useful tool for offering lengthier, scheduled training sessions for larger groups. Five librarians each developed 15-minute training presentations. The presentations were:

- Personalize your PubMed Experience with My NCBI
- Search OvidSP MEDLINE Like a Pro
- Search OvidSP PsycINFO Like a Pro
- See Who's Citing Your Work with Web of Science
- Creating Bibliographies with EndNote
- RefWorks Basics.

They each prepared PowerPoint presentations to help them pace their sessions and keep them within the 15-minute timespan. The PowerPoint presentations could also be e-mailed to participants following the training sessions. Librarians' initial apprehension about this new way of teaching and unfamiliar technology was alleviated by practicing with one another using the headset and software.

Librarians publicized the new service via an e-mail broadcast to the Einstein community and its affiliates, class listings on the Library's Web site, and a posting on the Library's electronic sign board. The initial announcement about the service had the added benefit of raising awareness of other library resources and services and motivating new users to visit the library to seek help for problems and questions not covered by the planned webinars.

Participants signed up for all five of the sessions. Because of the conference calling limitations of the Einstein campus telephone network, the audience was limited to two participants for each session.

Librarians agreed that since this was the first time they were attempting this mode of teaching, a two-person-per-session limit was actually beneficial. Prior to each session, a reminder e-mail message was sent to participants. The message included a link to the session login page and an outline of the session topic. Librarians used a combination of PowerPoint presentation and live demonstration during these sessions. Copies of the PowerPoint presentations were e-mailed to participants after the demonstrations.

Librarians created a brief electronic survey to measure participant satisfaction with webinars. Zoomerang™ was used to create the survey and tabulate and analyze results. The survey was e-mailed to the participants immediately after each webinar. All participants responded to the survey.

After their initial webinars, librarians met to discuss their experiences. Overall, they agreed that the sessions went well. Several librarians noted that their sessions extended beyond the scheduled 15 minutes. It was decided to increase some of the sessions to half an hour, and to select narrower topics for future 15-minute sessions. A 15-minute webinar, Including the PMCID in Bibliographic Citations in EndNote, was recently added to the schedule.

CHALLENGES

The scheduled training sessions posed several technical challenges. Einstein's telephone system only allows for three-party teleconferencing, limiting session attendance to two users per session. Glance® offers free conference calling for up to 100 users; however, it requires users to make a long distance telephone call to connect to a session, making it impractical. Users did not like the idea of making a long distance call to speak with a librarian across town or down the street.

Participants with older, slower computers noticed a delay in the updating of their display, leaving them out of synch with the instructor and other participants. A few users saw the demonstration being "painted" very slowly on their display. On a few occasions, the session terminated abruptly. On the occasions when these participants were able to move to a newer computer, they reported improvements in the display. Since librarians often had to rely on users' descriptions of these types of problems, it was often difficult to ascertain whether the issues were hardware, software, or network-related. Librarians always try to get a sense of these problems as early into a session as possible, so they can troubleshoot before the user gets frustrated. Having the user close down other software applications often helps to alleviate the problem.

E-mail invitations sent prior to one session contained a broken link to the session login page. The librarian was able to navigate the participants to the library's "Guided Searching" Web page, where users were able to log in.

Several users claimed not to have received the e-mail with login instructions. Librarians were unable to ascertain the reason for this. It is possible that the users inadvertently deleted the messages or that they were caught in spam filters.

Other challenges were of a more practical nature. Wording of the initial e-mail announcement was misunderstood by several users. A few showed up at the library at the scheduled session time. A subsequent message better clarified the distinction between webinars and classroom sessions.

Webinar participants sometimes had different levels of knowledge and expertise about the resources covered. Having a discussion with several people who have different skill levels and expectations was difficult at times. Not having eye contact with users to pick up visual cues was a disadvantage. Librarians found that the best way to handle these situations was to continue with the planned presentation while letting participants know their questions/issues would be addressed immediately afterwards. Individual follow-up sessions could be scheduled as needed.

Holding the telephone handset while typing was uncomfortable and cumbersome, particularly during sessions lasting longer than 10 minutes. A speaker phone was not a practical solution, because of background noise. A wireless headset with volume control was helpful and functional.

RESULTS

From April 1, 2008 to March 31, 2009, librarians have hosted 75 sessions, on-the-fly and scheduled webinars, to 96 users. Total session time was 30 hours and 28 minutes.

Overall, this initiative has been successful. Participants and librarians were happy with the service. Librarians used a mode of teaching new to them to increase outreach to users on or off-campus. Participants learned new skills that they were able to put into practice right away. It is a popular and added-value enhancement to the Library's schedule of on-site classes.

Response to the first e-mail broadcast announcement was positive and raised awareness of other library resources and services. Sign-up for the 15-minute online teaching sessions was immediate and the outcomes were encouraging.

Participants valued the new skills they gained and anticipated using them in the future. They made personal connections with librarians and felt they could rely on them for help. Evidence of this new relationship is that those who had not previously visited the library came to ask for help in person and to use resources and services. Other participants subsequently contacted librarians by e-mail or chat communication when they needed help.

Librarians were pleasantly surprised by several unexpected findings that were not in the original plan. Secretarial and administrative staff, who often need to check citations and format papers, signed up for training sessions. They were delighted to know that help was just a phone call and keystroke away. Although the service was intended to reach off-site users, people located in the same building as the Library also appreciated the advantage of the webinars from their labs or offices. Librarians also found Glance® useful when collaborating on projects with colleagues at other libraries when face-to-face meetings were not feasible.

Librarians were apprehensive at first about this new way of teaching and use of unfamiliar technology. Practicing with one another as trial learners, and repeated use of the headset and software another contributed to ease of teaching learners sharing a desktop at the other end of the telephone.

As a result of this project, other technologies for distance training are being explored.³ Librarians are already using Adobe® Captivate to create prerecorded presentations that are available on the Library's Web site for users to view at their convenience.⁴ To overcome the limitations of the Einstein telephone system's conference call feature, librarians have begun using Skype, a Voice over IP (VoIP) service. A paid subscription to Skype allows for conference calls of up to 24 users, and a combination of Skype and telephone (landline and mobile) users. No webinars to date have exceeded Skype's 24-user conference call limit. A

webcam was ordered for use in teaching sessions when visual contact might be beneficial for instructor-learner discussions.

Glance proved to be functional and practical due to features such as compatibility with numerous Web browsers and operating systems, ability to work through hospital firewalls, no downloading of software or re-configuration of patron's computer necessary, as well as prompt and helpful customer support. Some librarians particularly liked the ability to launch the program at the spur of the moment. Others preferred the structure of scheduled reference appointments and training sessions. Glance was able to accommodate both types of training styles.

The subscription for three simultaneous sessions was renewed for another year. Librarians wanted to be sure that Glance would be available whenever a librarian needed it. It would be frustrating and potentially embarrassing to try to initiate a desktop-sharing session with a user only to get a busy signal. They felt that keeping the three session subscription would give them a safety net. In retrospect, this was probably overkill because, to date, there has never been an occasion when three librarians conducted three concurrent sessions. A subscription for two simultaneous sessions is being considered for the next renewal.

Using online-conferencing and desktop-sharing technology is an effective way of distance teaching.⁴ Because it can be done at a convenient time for learner and librarian with no travel from the office or the library, it is practical and efficient. Librarians were using the software effectively for impromptu one-on-one consultation with users, and extended it to reach multiple users located at various sites.

Survey responses and comments show the success of this project for outreach to current and new users of library resources and services (see Appendix I and II). Twelve participants attended the initial round of webinars in February and March 2009. The survey was e-mailed immediately after each session. All twelve responded to the survey. All participants found the sessions helpful and convenient, and indicated that they would sign up for future sessions. One requested a follow-up tutorial the following week. Two participants reported technical problems.

FUTURE PLANS

There may be many new options for distance training and learning in the future. Technology will undoubtedly play an increasing role in library instruction. Plans for expansion of this project at Einstein include:

1. Creating group training, customized "lunch & learn" sessions, and scheduled classes that link distance participants from multiple sites.
2. Expanding this service for individual consultations tailored to users' needs and convenience as other resources become available.
3. Recording and posting popular sessions on the Library's Web site.
4. Exploring several free desktop-sharing applications (DimDim, FuzeMEETING) that have recently come on the market for use in addition to, or in place of, Glance.

Additional publicity to promote the webinars will be provided via broadcast e-mails, electronic sign boards around campus, library brochures, Library Web site, and collaborations with Einstein's faculty development program.

Online training may change the perceptions of both librarians and participants about learning, the ease with which that learning takes place, the available training tools, and the role of the participants in the training process.

Appendix I

Survey Questions

- Which session did you attend?
- Was the session helpful?
- Were there any technical problems?
- Was the schedule convenient?
- Would you sign up for future online training sessions?
- What other topics would you like to see covered?

Appendix II

Representative Survey Comments

- “Definitely the convenience of the classes and friendly instructors... I cannot think of a better way to utilize some spare time.”
- “The training created a wonderful after training interaction. I know where I can go to find help.”
- “The session was helpful and was casual enough for me to be able to ask questions freely.”
- “It is very good and useful. I like it.”
- “A follow-up tutorial after a week or so.”
- “15 min format does not work, minimum 1/2 hr is required.”
- “Librarian custom tailored session to our dept needs”

REFERENCES

1. Henner, Terry. Bridging the Distance: Bibliographic Instruction for Remote Library Users. *Medical Reference Services Quarterly* 2002 Spring;21(no 1):79–85. [PubMed: 11989282]
2. Cleveland, Ana D.; Philbrick, Jodi L. Virtual Reference Services for the Academic Health Sciences Librarian 2.0. In: Wood, M. Sandra, editor. *Medical Librarian 2.0: Use of Web 2.0 Technologies in Reference Services*. Haworth Press; New York: 2007. p. 25-49. *Medical Reference Services Quarterly* 2007;26(supplement 1) co-published as.
3. Green, Brenda Faye; Wu, Lin; Nollan, Richard. Web Tutorials: Bibliographic Instruction in a New Medium. *Medical Reference Services Quarterly* 2006 Spring;25(no 1):83–91. [PubMed: 16635960]
4. Li, Jie; Runderson, Robert A.; Burnham, Judy F.; Staggs, Geneva Bush; Robertson, Justin C.; Williams, Thomas L. Delivering Distance Training to Rural Health Care Professionals. *Medical Reference Services Quarterly* 2005 Spring;24(no 1):41–54. [PubMed: 15760832]

| Product Name/URL | Max. Attendees | VoIP | Video | Desktop Sharing | White Board | File Sharing | Chat | Record Session? | Attendees Install Software? | Operating Systems | Price Structure * |
|----------------------------|----------------|------|-------|-----------------|-------------|--------------|------|-----------------|-----------------------------|------------------------------|---|
| Adobe Connect | 100+ | Y | Y | Y | Y | Y | Y | Y | Adobe Flash | PC, Mac, Linux, Solaris | Software license Annual & monthly Subscription Pay-per-use |
| DimDim | 20 | Y | Y | Y | Y | Y | Y | Y | N | PC, Mac ** | Free |
| FUZEMeeting | 15 | Y | N | Y | N | Y | Y | N | N | PC, Mac, Linux | Free |
| Glance | 100 | N | N | Y | N | N | N | N | Java program | PC, Mac ** | Annual & monthly subscription Pay-per-use |
| GoToMeeting | 15 | Y | N | Y | N | N | Y | Y | N | PC, Mac | Annual & monthly subscription |
| LiveMeeting, standard user | 15 | Y | Y | Y | N | Y | Y | Y | Java program | Web client: PC, Mac, Solaris | Monthly subscription based on number of participants |
| Unyte | 999 | Y | Y | Y | N | Y | Y | Y | Adobe Flash | PC, Mac, Linux | Quarterly & annual subscription based on number of participants |
| vRoom | 2 | Y | N | Y | Y | N | Y | N | Java program | PC, Mac | Free |
| Webex | 25 | Y | Y | Y | Y | Y | Y | Y | N | PC, Mac, Linux, Solaris | Monthly subscription |
| Wimba Classroom | Unlimited | Y | Y | Y | Y | Y | Y | Y | Java program | PC, Mac, Linux | Annual subscription based on FTE |
| Zoho Meeting | 1 | N | N | Y | N | Y | Y | N | N | PC, Mac, Linux | Free |

Adobe Connect: <http://www.adobe.com/products/acrobatconnectpro/>
 DimDim: <http://www.dimdim.com/>
 FUZEMeeting: <http://www.fuzemeeting.com>
 Glance: <http://www.glance.net>
 GoToMeeting (Citrix): <https://www2.gotomeeting.com/>
 LiveMeeting (Microsoft): <http://office.microsoft.com/en-us/livemeeting/FX101729061033.aspx>
 Unyte (IBM/Lotus): <http://www.unyte.net/>
 vRoom (Elluminate): <http://www.illuminate.com/>
 Webex (Cisco): <http://www.webex.com/product-overview/index.html>
 Wimba Classroom: http://www.wimba.com/products/wimba_classroom/
 Zoho Meeting: <http://meeting.zoho.com>

*All products offer free trials

** Presenters need PC or Mac. Participants can have PC, Mac, or Linux

FIGURE 1.
Comparison of Desktop-Sharing Products

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Session 1:

Key: **glance**

Can you Glance?

Session 2:

Key: **glance**

Can you Glance?

Session 3:

Key: **glance**

Can you Glance?

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FIGURE 2.
Guided Searching Login