NetMeeting

A new and inexpensive alternative for delivering library instruction to distance students

by Paul R. Pival and Johanna Tuñón

Distance education has become increasingly popular in the 1990s. A recent report from the National Center for Educational Statistics, an arm of the U.S. Department of Education, suggests that in 1998, 90% of all institutions with 10,000 students or more, and 85% of institutions with enrollments of 3,000 to 10,000, will be offering at least some distance education courses.[1]

Long before many institutions were looking to distance education as a method of maintaining enrollment and replacing dwindling federal funding, Nova Southeastern University (NSU) in Ft. Lauderdale, Florida, was pioneering in this area. The Einstein Library at NSU has been actively supporting students in off-campus programs since 1992. The importance of delivering bibliographic instruction (BI) to students enrolled in distance education courses has become more apparent with the advent of online databases and full-text resources. Students, faculty, administrators, and accrediting bodies recognize the need for distance students to learn information literacy skills.

One distance program at NSU that presents a particular challenge to library instruction is the Graduate Teacher Education Program (GTEP). This program has 11 sites (clusters) in Florida and one in Las Vegas. Classes are offered at each site five times a year in eight-week blocks. Some classes are conducted live at the cluster sites, while others are conducted remotely via either audiobridge (moderated conference call) or compressed video.

Starting in the fall of 1997, librarians began visiting each GTEP site to deliver basic library instruction. This travel was necessary because, unlike other NSU distance education programs, GTEP students never come to the main campus. The library training was integrated into a required GTEP research course that was taught entirely in classes delivered at the sites. This plan, however, quickly became burdensome since it meant the librarians were making a total of 60 site visits per year. As a result, the Einstein Library began looking for technology solutions for delivering library instruction to these sites.

NetMeeting as a solution for delivering BI to distance students

The library team became interested in Microsoft's NetMeeting, a collaborative software, because it allows individuals and groups to interact via the Web. This program allows software to be used collaboratively, permits online group meetings using text chat, has white board features, can be used for visual data to multiple sites, and can transmit both audio and visual data in a one-to-one format. This solution appeared to have real possibilities since GTEP had computer labs with Internet connections, technology staff, and LCD projectors at all the sites. The library team also liked the fact that NetMeeting software provided more interactivity than software,

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such as CUSeeMe, and equipment solutions, such as compressed video, interactive TV, or satellite. NetMeeting also permits a presenter to elect to share control of the session with others.

A librarian presenting a BI session can elect to use the sharing function and allow a student at a remote site to search in an online database. Individuals at all the sites are able to see the search results.

Preliminary trial

Before the library decided to go ahead with this project, the library team arranged for several trial connections. The intention was to test how many sites could receive instruction simultaneously. The remote sites used Microsoft NetMeeting 2.1 for Windows95, running on a Gateway P166 with 32 MG of RAM. The library was showing a slide presentation on Microsoft's PowerPoint98 and online databases via Netscape Navigator 4.01. The on-campus connection was a T-1 connection, the receiving sites were dialing in via modems at 28.8 or 33.3 bps.

Based on the preliminary trials, the library team learned:

• The transmission of both audio and visual data over the Internet slowed down the transmission times for sites using modem connections.

• The quality of audio transmissions over the Internet was not great.

• NetMeeting could not quickly handle ten simultaneous sites, even when the library only used it to transmit visual data.

• The transmission of elaborate PowerPoint transitions slowed down the process.

• The system worked best when computers at all the sites were set at the lowest display settings (640 by 480 pixels).

• Using Microsoft's public server was slow. NSU set up its own NetMeeting server. This improved transmission and privacy problems.

As a result of these findings, the library team opted to use audiobridge, a commercial telephone conferencing system for transmitting audio to the GTEP sites. This meant that each site had to provide two telephone lines: one for the modem connection and one for the audiobridge connection. Each site also had to provide a speakerphone so that all the students at the site could hear.

The library team decided to limit transmission to a maximum of three to four sites at a time and to keep the initial trials with GTEP classes simple. The library trainer would stick to the basics and would not use the collaboration feature in the initial set of training sessions. The team decided to spread the implementation over several weeks and to have librarians present at the GTEP sites as observers. This permitted the library to formatively evaluate the training and make adjustments based on both student input and the library observers' input.

GTEP library training sessions via NetMeeting

Because the success of implementing NetMeeting depended on the cooperation of GTEP staff at the sites, the library wanted to ensure that GTEP staff knew what was expected of them. As a result, the library asked the GTEP dean to send a memo to the technology staff and cluster coordinators at the various GTEP sites. Each GTEP site needed to provide 1) a person to set up equipment and make the NetMeeting connection, and 2) a facilitator to escort the class to the room in which instruction was to be received, to distribute library documentation, to act as a moderator during instruction, and to collect evaluation sheets.

The Einstein Library began delivering library

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instruction to GTEP sites in April 1998. The library ran the trial presentations at the five sites with scheduled research classes during that session and spread the training over three weeks. Librarians were present at each trial site during the first two weeks. These librarians were observers or "flies on the wall." They would only step in if there were major technical difficulties. Students were instructed to address all questions and interactions to the NetMeeting presenter from the main campus.

At the end of the trials, the library team evaluated NetMeeting as an alternative for delivering library instruction. If the results had been unsatisfactory, the library was prepared to go back to traveling to the sites to deliver BI. Fortunately, the NetMeeting training implementation seemed very successful. Student evaluations documented that students found NetMeeting was a satisfactory method for delivering library instruction.

During the initial trials, a total of 59 students received instruction via NetMeeting at the five sites. All the students participating at the five sites indicated that they felt this was an acceptable method of receiving basic library instruction. Equally important, 100% of the participants also felt that future classes would benefit by receiving instruction in this format.

Problems encountered and lessons learned

Murphy's Law dictates that if something can go wrong, it will, and our GTEP NetMeeting trials were no exception. Some of the lessons learned included:

• Keep the training segment relatively short. The observers noted that students grow weary of just watching the screen while listening to a "disembodied voice." Students participated more when the content of the instruction was more relevant to the recipient and when the presenter allowed more time to conduct student-suggested searches in the online databases.

• Have a backup machine ready to deliver instruction.

• Make sure NetMeeting settings on the training machine do not mask the presenter's name to outside participants.

• Use the lowest screen resolution (640 by 480 pixels) at all sites.

• Be sure to contact the people at the site a few days before the presentation to ensure that all is ready and that they are comfortable with the procedures to be used.

• Verify if there is a problem with Internet Service Providers used at the sites dropping connections if the machines have an extended period of inactivity.

• Stop regularly during the presentation to ask if there are any questions since the presenter has no visual clues for judging whether students understand the content.

Future plans

During the 1998–99 academic year, the Einstein Library plans to use NetMeeting for training at the sites three times. We hope to send a librarian to each site twice a year to do live presentations and offer optional, hands-on training. The other three sessions per year would be delivered via NetMeeting. We plan to add a camera to the computer at the main campus and hope to be able to add cameras at each site. This would provide visual cues to the students at the sites and the NetMeeting presenter.

Conclusions

NetMeeting provides academic libraries with a new and inexpensive alternative for delivering bibliographic instruction to distance sites. NetMeeting has the potential of saving libraries a substantial amount of money in both librarian staff time and travel expenses. Best of all, students receive basic library instruction at a time and place that is convenient for them, rather than having students wait for times when librarians are able to schedule library training sessions at their sites. NetMeeting is not a perfect training solution, but it offers librarians one more tool in the arsenal of training options.

Notes

1. Lewis, Laurie, Debbie Alexander, and Elizabeth Farris. "Distance Education in Higher Education Institutions," NCES 98-062. (Washington, D.C.: U.S. Department of Education, National Center for Education Statistics, 1997). ∎