

How May We Help You? Online Education Faculty Tell Us What They Need from Libraries and Librarians

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ABSTRACT. *With the rapid rise in distance education and online courses, the need to provide effective library services to the faculty and students involved in online courses is vitally important. Traditional services cannot always be transferred easily to the online environment and may need to be modified, or new services may need to be created to meet the needs of online users. This article examines the needs and wants of faculty involved in offering online courses. A Web-based survey was administered to faculty teaching an online course within the past 2 years at the authors' organization. Faculty were asked a series of questions including their use of current library services, their emphasis on students using library services, and the services and resources they would like the library to provide in the future. Questions for the survey were inspired by LibQual comments received during our 2005 and 2007 surveys as well as comments received from both faculty and students while teaching and participating in online courses. Faculty who took the survey teach in a variety of disciplines and have different experience levels with teaching online courses. Results of the survey will be presented along with inferences from the current literature. The audience will be invited to share their innovative service ideas. Participants will gain ideas for updated or new services to faculty teaching online courses.*

KEYWORDS *online courses, library services, Web-based survey, library use*

INTRODUCTION

With the rapid growth in online and distance education, the role of the library must expand to meet the needs of both students and faculty involved in the process. More than two-thirds of higher education institutions offer online courses; the majority of these provide complete online programs (Allen & Seaman, 2007). Eighty-six percent of online students are undergraduates who, in general, are less familiar with and aware of library resources and services. With distance and online learning, the faculty is able to focus on instruction or content rather than behavioral issues (Rohland-Heinrich & Jensen, 2007). Libraries can use this fact to their advantage by supporting faculty in the teaching of information literacy, critical thinking, and lifelong learning skills. Markgraf (2002) indicated that faculty found online teaching to be more time-consuming. Cahoy and Moyo (2005) noted that faculty from Penn State's World Campus indicated that they found online teaching more time intensive. Rockwell, Schauer, Fritz, and Marx (1999) reported that the major concerns online faculty had were the time requirement, student support, and developing effective technology skills. Their literature review suggested that online faculty members are burdened by technical issues related to both courseware and library connectivity. Librarians can use these findings to market their services as a way to save faculty time. However, they first must show that they have something of value to offer, otherwise faculty may see adding library-related training as a burden. Librarians must determine what faculty need, and then work to provide these services. After proving their effectiveness, librarians can work in service to other areas, such as information literacy and evaluation of information.

The goal of this research project was to explore faculty awareness of current services and their needs and desires for improvements or for new services and resources. In addition, the authors sought to determine other ways that the University of North Texas (UNT) Libraries can support faculty involved with online learning.

LITERATURE REVIEW

Libraries providing services and resources to support online education face similar issues as they do in serving face-to-face students. Three of these challenges are knowing the needs of clients, marketing services and resources, and, perhaps most importantly, having faculty and students recognize the importance of the library in education. The latter can be even more of an issue in online education. Markgraf (2002) acknowledged that challenges for libraries supporting online education are identifying distance education faculty, communicating with students and faculty, and creating awareness of library resources and services. Adams and Cassner (2001) noted that faculty influence student use of the library by requiring research assignments.

Faculty can also increase the use of librarians by referring students to liaison librarians. The authors added that this influence becomes increasingly important as more and more courses are taught online. The lure of electronic items reduces, in many minds, the need for libraries and librarians. Thus, marketing of library services and resources is essential.

Cahoy and Moyo (2005) provide an excellent review of literature relating to faculty perspectives on online education and faculty views on the role of libraries in distance education. They reported that 50% of faculty members view the role of libraries as more significant in online courses than in face-to-face classes. Despite this statistic, however, 62% of faculty responding did not require library research as part of their course. Lebowitz (1993) reported a low rate of faculty encouraging or requiring use of the library by students in distance education courses. Adams and Cassner (1998) reported that seven of 13 faculty members required the use of library resources for online courses but noted that students had little contact with library staff. Hines (2006) added that 12 of 16 (75%) of the faculty surveyed required library research. The majority of faculty (87.5%) knew that the library provided online services, but nearly 50% of respondents did not know whether students used them.

Ruddy (1993) and Markgraf (2002) reported that the more aware faculty are of library resources, the more likely they are to include library assignments in their online courses. Markgraf (2002) noted that reaching students through faculty instruction is an excellent method of increasing awareness and use of services. She discussed various ways to promote resources, including networking with the support staff involved in online courses. Improved collaboration with online faculty is a good way to integrate library resources into online courses and promote use of services (Cahoy & Moyo, 2005). Markgraf (2002) indicated that faculty with close contact to a librarian frequently use library services more often. Feldheim, King, and Sherman (2004) recommended working with faculty on a class page or handout as an excellent way to make contact and improve knowledge of library services. Distance faculty and students are often unaware of library services and resources (Buck, Islam, & Syrkin, 2006). If faculty members have not been made aware of library services and resources from direct contact with the library or librarians, they may believe that the library does not have services for online learners or that online students are not to use these services.

Adams and Cassner (2001) conducted a survey of distance education faculty to evaluate their satisfaction with library services and resources. There was general satisfaction but a low use of the resources. Open-ended comments reflected the need for additional marketing of services and resources. Cahoy and Moyo (2005) also reported a low level of awareness and use of library resources by online faculty. In addition, there was a low level of expectation of library support for online learning.

Shaffer, Finklestein, Woelfl, and Lyden (2004) reported that 92% of the faculty surveyed expected online students to have the same library skills as the on-campus students. Sixty-eight percent indicated a willingness to

provide class time to teach library skills. Few of them, however, actually provide this time and a number of them suggest that students contact the library for training. Hines (2006) noted that across the 13 studies she looked at that there is a general lack of interest in librarian-facilitated instruction in library skills.

Lillard, Wilson, and Baird (2004) discussed an experiment in which a distance learning librarian was an active member of the course, with access to the assignments, and could thus interact with the students immediately. The librarian designed tutorials relevant to the assignments. Unfortunately, the tutorials were not well used. A second-semester offering provided for a librarian consultation in both the online and face-to-face classes. Students were satisfied with their interactions with the librarian, although the majority indicated they would not have consulted the librarian if it had not been a course requirement. The authors reported that the librarian solved a number of technical issues that would have otherwise gone to the faculty and used their time even if they referred the students elsewhere. Shaffer et al. (2004) emphasized that instruction for online students would reduce the number of times librarians are asked to solve the same issue.

Shaffer et al. (2004) employed focus groups and a print survey to conduct a needs assessment of distance-learning faculty. As well as determining which departments and faculty offered online courses, they also sought to determine which library resources and services were used by the faculty and solicit suggestions for other services. Part of the rationale for the needs analysis was the high number of students calling for more resources or technological support, and the librarians thus realizing that they needed to make a concerted effort to serve distance learners. The authors provided a good literature review of papers examining the use of library services by distance learning faculty in their courses and their requirements for using library resources in their assignments.

Buck et al. (2006) reported on a survey they conducted of ARL libraries concerning collaboration in distance learning. They presented ideas for developing or enhancing collaborative efforts and for providing ways of organizing services to increase awareness. Lebowitz (1998) described a marketing plan to counteract the unfortunate assumption that librarians are no longer needed, given the growth of online resources. Surveying faculty is a known method of marketing services and resources (Adams & Cassner, 2001; Cahoy & Moyo, 2005; Hines, 2006).

THE UNIVERSITY OF NORTH TEXAS (UNT) CONTEXT

UNT State of Online Education

The University of North Texas (UNT) has a vital distance learning program that has grown steadily over the last 6 years, more than doubling in enrollment since the fall 2001 semester. Figures for fall 2006 indicated that 8,269

students were enrolled in distance learning classes, which is approximately 25% of total student enrollment. This enrollment was an increase of 15% from 2005.

The program has grown to offer 15 master's degrees, 16 graduate certificates, and 3 bachelor's degrees, all of which are fully available online. The master's degree programs are provided by the School of Library and Information Sciences (two master's degrees and eight certificates), the College of Education (six master's degrees and three certificates), the College of Public Affairs and Community Service (three master's degrees and three certificates), the School of Merchandising and Hospitality Management (two master's degrees and two certificates), and the College of Business Administration (two MBA programs). The bachelor's degrees offered are the BAAS in Organizational Development (PACS), the BAAS in Applied Technology and Performance Improvement (COE), and the BA in General Studies (CAS). The School of Library and Information Sciences is experimenting with an online doctoral program through an IMLS grant.

The Center for Distributed Learning was established in 1998 to support faculty in the development of online courses and provide consulting services for faculty. The center provides services such as migration of courses from one version of course management software to another, graphics, creation of crossword puzzles, and other active learning components for online courses.

The course management software currently utilized is Blackboard/WebCT Vista 4.0, although the Learning Enhancement Program Group is evaluating other software packages, as well as course start-up and assistance in instructional design.

UNT Libraries' Support of Online Education

Several years ago, the decision was made by the Libraries to consider each student as a potential distance learner. This altered the focus of acquiring resources to include and emphasize electronically available indexes and journals, and electronic books. Many of the indexes contain full-text articles, and, among the electronic books ordered, some titles the Libraries own in hard copy are duplicated, most notably books used in the School of Library and Information Science and the Department of Computer Science. These are the two largest programs in distance education at UNT. All electronic resources are available to online learners through the use of a proxy server. The UNT Libraries currently have 372 databases, journal suites, and other electronic resources available.

In addition, numerous services geared toward remote users were implemented, including e-mail and chat reference services, as well as a nationwide toll-free telephone number. Campus-based students also use these services. Other services that were already in place were interlibrary loan and a service called Reference by Appointment for students who are close enough to

come to campus occasionally. Online learners can also request books and journal articles to be mailed to them, and most journal articles are now sent in PDF format via e-mail. To use this service, students must be enrolled in an online course and not live close to campus. Not surprisingly, this service is of great interest to those students who live outside the city but do not take online courses. These services form a sound infrastructure of services already in place for distance learners (May, 2005). Other available services include class assignment pages geared specifically to assignments in the course, more general subject pages, and instruction services through the liaison librarian program. There is a page for distance learners, specifically those students located far from campus, which focuses on document delivery. There are a number of tutorials that present research tips and help in searching specific databases. Newer services are the "Librarian in the Classroom," in which there is a librarian in the course who can answer questions and give suggestions for databases and search strategies to the students, and a method for faculty to link directly to articles in databases from their classes.

MATERIALS AND METHODS

A 16-question electronic survey was sent to faculty involved in teaching online courses through a listserv operated by the Center for Distributed Learning at UNT. This method was an advantage over some other studies (e.g., Shaffer et al., 2004) that had difficulty determining how to contact the faculty. The initial notice was sent on December 4 with a final closing date of December 20. Two reminder notices were sent as well. The survey was operated through the Office of Institutional Research and Accreditation on their Inquisite software. As required by the Office of Institutional Research, respondents were directed to an opening Web page listing the purpose and uses of the survey and resulting data. By clicking on the "Take the Survey" button, participants were giving their implicit consent to the investigators.

The complete survey is included in the Appendix. All yes-or-no questions related to the use of a service had a pop-up box appear asking, "Please comment on the satisfaction with the service from both the faculty and the student perspective," if the user selected "yes" and a pop-up box asking "Why not?" if they selected "no" (indicating that they did not use the service). Hines (2006) noted from her poster presentation that attendees wanted to compare results of surveys. In order to facilitate this comparison, the authors worded some questions similar to those from Cahoy and Moyo (2005) and Hines.

The investigators began with a shorter survey but realized that the UNT Libraries provided a number of services to distance education already and wanted to determine if faculty were aware of the services and evaluate their satisfaction level. A secondary rationale was to market the services and

gauge the level of interest in several beta services. Links to the services were provided, if available, to allow faculty to review the services.

RESULTS AND DISCUSSION

Response Rate and Respondent Demographics

All research involving human subjects at UNT must be approved by the institutional review board (IRB). By the time the survey passed IRB acceptance, it was later in the semester than anticipated. The investigators suspected that the response rate may be low due to the time of the year the survey was offered. Sixty-four people opened the survey although a number of these were from the investigators testing the survey on a regular basis and before sending out the call for participants. There were 40 completed responses, resulting in approximately a 13% response rate. Despite the low response rate, most likely due to the time of the year, the data can be used to provide direction for services and resources.

The School of Library and Information Science (SLIS) is one of the campus leaders in online education and was expected to provide a high response rate as shown in Table 1. Several librarians serve as adjunct professors to SLIS and some services are beta-tested in SLIS courses so it could be assumed that the faculty is more interested in the survey. However, the high rate of return from the College of Education (COE) was unexpected but welcome. The College of Arts and Sciences is the largest faculty group at UNT. Three of the responses were from the “hard” sciences, two from social sciences, and two from the humanities. Overall, the authors were pleased with the responses from the various colleges and schools.

Table 2 describes the number of years faculty respondents have been teaching distance or online courses. While the majority (68%) are fairly new (5 years or less), a high number of faculty have been offering courses for a longer period. There were no college or school trends in the length of time that distance or online courses had been offered.

TABLE 1 Affiliation of Respondents

Affiliation	Count
College of Arts and Sciences	7
College of Business Administration	3
College of Education	9
College of Public Affairs and Community Affairs	2
College of Visual Arts and Design	1
School of Library and Information Sciences	11
School of Merchandising and Hospitality Management	2
Services/programs not affiliated with a college or school	2
Blank responses	3

TABLE 2 Length of Time Involved in Online/Distance Learning

Length of time involved in online learning	Count
0–1 years	13
2–5 years	14
6–8 years	5
9 or more years	8

Cahoy and Moyo (2005) used different time segments but also reported that more faculty were fairly new to teaching online: 43% had been teaching for 0 to 3 years and 26% for 4 to 6 years. Both UNT and Penn State have a long history of offering online courses. Hines (2006) reported that 87.5% of respondents had been teaching online for 2 or more years. The remaining faculty had just started teaching online in the semester that the survey was offered.

Role of Libraries in Online Education

Using a “Select all that apply” option, faculty members were asked to share their thoughts on the role of libraries in online education. All respondents selected “Provide library resources,” with 93% selecting “Offer instruction in using databases and indexes.” The other options were also popular, as shown in Table 3. The least popular option concerning the evaluation of information (60%) may be less important to faculty as they expect students to already have this skill. Cahoy and Moyo (2005) found that 77% of faculty believed the libraries’ role to be providing access to library resources, with 29% believing that libraries should be involved in educating students in the research process, and 19% noting a role in teaching students how to evaluate resources and information. Although Cahoy and Moyo used a “Select all that apply” option as well, the results from this survey indicate a much stronger interest in libraries supporting online education.

TABLE 3 Perceptions of the Role of Libraries in Online Education

Role	Count
Provide library resources	40
Offer instruction in using databases and indexes	37
Offer information literacy (how to effectively find and utilize information)	33
Offer courses relating to the evaluation of information	24
Provide Web sites that may be useful	33

Three open-ended comments were received. A SLIS faculty member noted that access to online resources licensed by the UNT Libraries should be accessible via the course site without the need to reauthenticate. Currently users in WebCT still need to authenticate into the Libraries' proxy server. Another SLIS faculty member suggested that faculty should be instructed on how to use the resources. An interesting suggestion from a College of Education respondent was to "train the trainer within different colleges to find specific information." The UNT Libraries have a liaison librarian program, with each department having a liaison librarian assigned to it who is available to assist faculty in using the resources. Based on the two comments above, it appears that marketing of the service is needed as well as a more concerted effort of the liaison librarians to meet faculty and educate them about specific library services. Because the results show that faculty members want the UNT Libraries to have active roles in educating users about resources and in teaching information literacy, the libraries must be more proactive in these areas with the online faculty.

Access to Needed Course Information

The next question asked faculty how their students received information for the course. Respondents were allowed to select all ways that applied and offer other means. Table 4 shows the results.

Eighty-three percent of respondents refer students to the UNT Libraries site for course information. The libraries must thus ensure that they are able to meet the needs of the students. This is especially important in disciplines in which the majority of journals are not yet available online. The interlibrary loan system at UNT is very efficient and should be able to provide the majority of needed items in a timely manner. Many articles are now delivered electronically, which improves both the speed of delivery and user satisfaction. As discussed later, the UNT Libraries also provide means for document delivery to distance education students. Shaffer et al. (2004) noted that providing course packs for purchase was the most popular method, with electronic access to materials through the library as the second option. The present study showed that these options were also the most popular with faculty at UNT, although in reverse order. Shaffer et al. (2004) also

TABLE 4 Method of Course Information Access

Method of information provision	Count
You supply a course package (print or online)	22
Refer students to the UNT Libraries Web site	33
Refer students to their local libraries	10
Other	11

included an option for electronic reserves while the authors of this paper did not specify it as a selection. Cahoy and Moyo (2005) reported that 10% of the faculty referred students to the libraries' Web site, 60% provided the information, and 22% allowed students to find the information on their own. The authors noted that several faculty members mentioned that they were unaware of library services for online learners or that online learners had access to library resources and services. At UNT, remote access to resources has been a priority since the late 1990s, and it appears that this fact is well known among the faculty.

Five respondents noted that they provided students with a list of Web links. The UNT Media Library was mentioned by one respondent as a source of information. Two faculty members reported that they provided citations to readings and expected students to find the items. Another respondent noted the use of an e-book as a source of required reading. Anecdotal evidence suggests that more faculty members use e-books as a substitute for physical reserve copies. The UNT Libraries do support this move and have leased additional copies of e-books to support students as needed. As noted above, given the high rate of use of UNT Libraries by online students, the libraries must ensure that services and resources are available and are easy to find and use. The UNT Services to Distance Learners Web page needs to be more functional and contain links to services and resources other than document delivery.

Student Difficulty in Locating Library Information

Respondents were asked to gauge the level of difficulty students experienced with finding library information for their coursework. As shown in Table 5, the majority of respondents (73%) noted that students experienced some to considerable difficulty in finding library information. Faculty were asked why they thought students had difficulty; however, the best information will come from the students themselves in a follow-up survey.

Cahoy and Moyo (2005) reported that 55% of their faculty believed that students had no difficulty finding and accessing library resources. They used a "yes" or "no" option, which makes it difficult to compare

TABLE 5 Perceived Level of Student Difficulty in Finding Library Information

Level of difficulty	Count
Not much difficulty	7
A little difficulty	4
Some difficulty	23
A lot of difficulty	6

results; however, it appears that UNT faculty believe that students have more difficulty in finding appropriate information for their research, as only 18% responded that students did not have much difficulty in finding information.

Participants were asked why they felt students had difficulty in finding and accessing reliable information for their assignments. The question was meant to be a “Select all that apply,” but due to a technical glitch, the survey allowed faculty to select only one option. Based on the results, as shown in Table 6, responses were fairly evenly divided across the provided options and the “Other” option, with one exception.

Cahoy and Moyo (2005) reported that 19% of faculty teaching online courses believed that students do not know how to search for library resources, 14% suggested that students rely on Web sites, 10% responded that students do not know how to evaluate quality of resources, and 24% believed a lack of awareness of library services and resources was an issue, using a “select all that apply” functionality. In the current study, all selections, except for a lack of knowledge about the catalog, were faculty concerns. Three participants commented that all options were valid. Two respondents replied that the organization of resources on the UNT Libraries’ Web site confused students. One of these also commented that having to reauthenticate when already authenticated through WebCT was frustrating for students. A COE faculty member in a newer department noted that access to needed journals was an issue for students. “Do not know how to search online” was another comment. Unfortunately, this response is a bit misleading as it could mean the Internet in general or the libraries’ Web site. One person noted, “Many students don’t take it seriously enough, early enough. Others are not aware of what resources to use and how to use them.” The results show that faculty members feel there is a need for student instruction in the use of library resources and information literacy. A student survey would be useful to determine other issues in finding and using library information.

TABLE 6 Faculty Perceptions of Student Issues With Finding Information

Issue	Count
Are not aware of library resources that they need to use	7
Do not know how to evaluate the quality of a resource	7
Do not know how to search library-provided journal article databases	8
Relying on Google and other non-library Web sites for information	8
Do not know how to use the library catalog to find books and other materials	1
Other	8

Ask A Librarian Service

The UNT Libraries offer both e-mail and chat services through Docutek. E-mail services were implemented in 1994 and chat in 1999, so the service is well established. Participants were asked if they linked to the Ask A Librarian site from their course page. Five respondents noted that they did include a link to the site. They noted that “this is a good resource” and “helpful to me” when asked about their satisfaction with the service. Despite the length of time virtual reference services have been offered, nine respondents (23%) noted that they did not know about the site. Two respondents replied that they didn’t know about the service but will add a link to their courses. Five respondents (12.5%) reported that they hadn’t thought about adding the link and six (15%) noted that they previously hadn’t thought of adding the link but will do so next semester. Three respondents acknowledged that they linked to the UNT Libraries’ home page and felt this link was sufficient, while another participant added that they promoted the service but did not link to it. One respondent replied that he or she did not know how to include the link and another added that he or she did not have authority to add links to the course. Two faculty members responded that they didn’t think it was necessary, and one SLIS faculty member noted that he or she expects library school students to be able to work without help from librarians. One respondent replied, “Never thought about it but we will next semester. Thanks for the tip!”

The survey results from Cahoy and Moyo (2005) noted that 15.5% of their respondents were unaware of Penn State’s virtual reference service. UNT faculty members seem to be slightly less aware of the service. As noted in the literature review, marketing of current services is vital. When marketing to faculty, it is helpful to express items in terms of saving faculty time lost through answering technical and resource-related questions. Those using the service appear satisfied at this point.

Electronic Reserves

Electronic reserves have been available at UNT since 2005. Fourteen faculty members (35%) noted that they use electronic reserves for their online courses. Comments on their satisfaction with the service were

- excellent service (x4);
- very highly satisfied;
- satisfied;
- good;
- I think it is a highly effective service;
- convenient for both students and instructor;
- the form is difficult to use; and

- don't like having to renew the same articles every semester. Want a longer term.

Of the 26 respondents who replied that they do not use electronic reserves (65%), only 8 (20% of all respondents) reported that it was due to not knowing about the service. One respondent noted that he or she did not know how to use the service. Four faculty members (10%) noted that they do not have a need for the service, and another noted that he or she does not have reserve material in the course. Another four faculty members mentioned that their readings are available from library-subscribed or free online journals, so they did not need to use electronic reserves. Two respondents noted that when the item is not available from the libraries, they put a PDF of the article on the course Web site. One person added that their readings were either not available electronically or are too large (usually entire books). The comments received expressed two concerns, but overall there is a high level of satisfaction by those who use the service. According to the results, this is the best-known service examined in the survey.

Distance Learners Request Form

The UNT Libraries provide a Web form that students can use to request items to be sent to them if they qualify for distance learning. This option is not available to local students enrolled in online classes. Participants were asked if they refer their students to this service. Eleven respondents (27.5%) mentioned this service to students in their classes. Comments related to the satisfaction with the service were

- good;
- generally positive;
- generally satisfied;
- works well;
- yippee!;
- limited success;
- students would like the ability to interlibrary loan as well as print documents; and
- students seldom take advantage of the service because they don't plan ahead.

Fifteen of the 29 who answered "no" to the question noted that they were unaware of the service (37.5% of the total respondents). Four noted that they had not thought of advertising the service to their students. Two faculty members added that all their material is available online. One respondent commented, "Never thought of it. Thanks for alerting me to the service."

Cahoy and Moyo (2005) wrote that 22% of online faculty was aware of delivery service options to students, while 38% of UNT faculty was unfamiliar with the service in this survey. Anecdotally, this service is well used by students at UNT. Having faculty more aware of this service and encouraging them to market the service to their students will help ensure that all students are familiar with the service.

Online Tutorial UNTilt

The UNT Libraries provide an online tutorial for using the libraries called UNTilt, which can be added to online courses. UNTilt is a modified version of the TILT tutorial created by the University of Texas at Austin. Only three respondents included UNTilt in their course links. One faculty member commented that students found the tutorial confusing.

Two faculty did not provide a response, while 35 (87.5%) responded that they did not include a link to UNTilt. The majority of the faculty (63%) noted that they were unaware of the tutorial. Two faculty members commented that it sounded useful and they will consider adding it. Another faculty member suggested that it be added automatically to the My[page] for courses that students are enrolled in. One SLIS faculty noted that “These are library school students, and they already know how to use a library.” UNTilt is available for linking to online courses, but marketing is needed to enhance awareness of the product. Although only one comment was received, it would be valuable to review the usability of the product.

Class Pages

All academic departments at UNT have a liaison librarian assigned to them. One of the roles assigned to these librarians is to create a Web page for each class offered within the department. Some liaison librarians actively pursue this role and are responsible for many pages while others have not been able to interest faculty in taking advantage of this service. Eleven faculty members (28%) noted that they have librarian-designed class pages for their courses. Three are SLIS faculty, while the others span the disciplines. Comments on the service were

- great;
- OK;
- good service;
- modestly useful, probably because we do not sit down yearly and review the site and our changing needs with the library staff; and
- have only used it in one course, but it wasn't utilized much by the students.

Twenty-one participants (53%) responded that they didn't know about the service. Four others mentioned that they either do not need a page or already have one they have created. One faculty member reported that he or she did not know about the service but included a variety of library links on the course page. Another respondent indicated that he or she will consider using this service next time. One person added that the course template is controlled by their department. Hines (2006) reported that 50% of online faculty noted that a librarian-prepared resource guide would be helpful. This service is currently available at the University of Montana, as it is at UNT. Both studies indicate that more marketing of the service is needed. As indicated in the literature review, working on class pages with faculty is an excellent way to collaborate with and inform faculty of other services.

Direct Article Linking

A recent tool offered by the UNT Libraries is the use of direct linking to articles for online courses. Three faculty members responded that they use this service. Comments on this service are "Couldn't run my course without this," and "I think this is a good and efficient service." SLIS and COBA faculty currently use this service.

Twenty-three faculty members (58%) noted that they were unaware of the service. Three noted that they haven't needed the service. Two others added that it would be very useful. As with the other services, marketing of the service is needed. However, this is a new service and has as yet received little publicity in order to test its effectiveness.

Librarian in the Classroom

The UNT Libraries have been experimenting with the "Librarian in the Classroom" concept for several years. This service attaches a liaison librarian to an online course, frequently with a discussion thread specifically for library-related issues. It has been used in several SLIS courses and occasionally in a chemistry course. Students and faculty found it useful, based on anecdotal comments. This service has allowed the libraries to be more aware of technical issues, such as a particular database not working with WebCT, as well as improving faculty communication with the libraries on required readings and other information needs.

Respondents were asked how interested they would be in using this service. Table 7 shows the results. The majority of the faculty members (50%) are very interested in having a librarian in their online class. A second large group (25%) noted that they would be somewhat interested in this service. Only four noted that they had no interest in it. One respondent added that

TABLE 7 Faculty Interest in the Librarian in the Classroom Service

Interest level	Count
A little interested	6
Somewhat interested	10
Very interested	20
Not at all interested	4

the service is not relevant to course needs. Several faculty commented at various points that their courses are primarily procedure-based and do not require research. Hines (2006) reported that 63% of her respondents were not interested in this service. She did not collect open-ended comments, so it is not known why respondents were uninterested in the service. UNT faculty members across the disciplines were quite interested in the idea. Brainstorming comments listed below will be used to ensure the effectiveness of this service.

The respondents were asked to brainstorm how the service would be most beneficial to them. Twenty-nine faculty members (73%) provided comments. Not all comments related to the service, and a number were fairly general in nature. Seven faculty members noted that they were not sure how they would use the service but thought that it was an excellent idea. Two of these faculty added that they are thinking about how they could use the Librarian in the Classroom program. One suggested that the service should be included in all online courses and another noted that he or she would have to try it before deciding on its value. Another noted that a fast turnaround time would be essential to make the service useful. "I would need to spend some time thinking about how to make good use of this service. The need for the service would have to be clear. I had reached the point of almost giving up on research assignments because students use Wikipedia or Infoplease, and these seem to make student research pointless," was another comment.

Two respondents noted that a Web page for library services would be useful, with one person emphasizing that the page needed to be created before the class began. One participant suggested sharing the outline for the course with the librarian to see where the librarian's assistance could best be utilized. One respondent noted, "I would like to have a librarian to brainstorm with me when I design the assignments. For students, the librarian can greatly help them to get access to the academic sources and have a better idea of the assignments." Another person thought that more than one librarian might be needed for big classes during busy research times. A link to an actual assignment was suggested.

One respondent noted that in-person availability would also be useful as students differ in their needs. Another respondent noted, "I would love

to be able to refer them to a particular person for material for their research papers. They don't understand why Wikipedia isn't a good source." Including the name of the librarian on the class Web site and telling the students to contact the librarian is another suggestion. Another respondent suggested that the service would help students in their first classes learn to navigate the library more effectively. One person suggested making library services part of student orientation. As with most libraries, the UNT Libraries offer introductory sessions with a tour at the beginning of the spring and fall semesters, and now offer specialized introductory sessions to graduate students as well as drop-in sessions throughout the semester. Liaison and reference librarians are also available to assist both remote and in-person students.

One faculty member who currently uses the service reported that "it is a great added value to classes." Another current user wondered if they could have a record of who used the service. While this request seems a bit invasive, it would be possible to keep statistics on the number of questions received and even the type of questions asked. The UNT Libraries use software to record reference desk statistics and currently record questions asked and the responses. This provides an assessment system to determine what problems may be occurring, such as poor signage and electronic resources not working, as well as to provide training on new questions or for newer staff. The system could be modified to allow the Librarian in a Classroom questions and responses to be added. The questions could be analyzed to identify technical problems, needed resources, and more.

Overall Use of Library Resources and Satisfaction

Participants were asked which library resources they found valuable and were invited to comment on items asked about previously or others not mentioned. They were also encouraged to provide suggestions for improving resources. Not surprisingly, online resources, including databases, journal suites, and full-text journals topped the list with 22 votes. Electronic reserves, course pages, interlibrary loan, e-books, tutorials, and "librarians that speak in my class" received one vote each.

One respondent commented "The online journal database and electronic journal access is great. We can locate most of the recent research we want students to read via the various electronic journals." Another noted that there was "wonderful access to the articles via the databases" but unfortunately his students (graduate students) are frequently unaware of the resources available and are unable to find relevant information. This finding is not unexpected but brings up the question of how librarians can tell students about available resources when they usually do not get time with the students. One respondent suggested that it "would be very useful to have a librarian provide an online orientation to the library's services, via Live

Classroom, and provide a virtual tour to orient/refresh students' understanding of library services available to them through UNT." The UNT Libraries provide a variety of helpful Web pages and tutorials already and with a recently redesigned Web page, they expect these to receive greater use.

There was one comment that suggested the libraries do not have several of the most needed journals in the user's discipline. Another respondent added that they found the databases frustrating, as full-text materials were not always available, and another person noted that the databases need to be more user-friendly. One respondent suggested that a tailored Web site be provided. It was unclear whether this comment referred to a Web site for faculty teaching online courses or a page tailored to individual courses. The UNT Libraries provide both a Web page for faculty and a Web page for distance learners. As mentioned above, the libraries clearly need to market their services and resources more effectively. Another comment related to the need for a portal to provide a common interface and reduce the need for multiple passwords as these issues "simply make the students give up, leave the site, and revert to Google." The libraries provide remote access to the resources through a proxy server that uses the Enterprise ID (EUID), which all students, faculty, and staff use to access their personal information online and to register for courses. WebCT also uses the EUID system. Thus it is somewhat unclear why multiple passwords are needed. The electronic reserves use a different set of username/passwords, however, as does the interlibrary loan system, although users can set up the interlibrary loan system with their own combination of username and passwords. There is a known problem that once in WebCT, students still need to authenticate to proxy into the libraries' online resources.

One respondent noted that the Center for Distributed Learning (CDL) "offers great help for instructors who use technology in their teaching. Librarians may want to work with them to share information and collaborate on providing better services together." The libraries are currently collaborating with this department to provide support for large classes moved to online or blended format. As well, several librarians serve as adjunct faculty for online courses and thus should be able to create closer networks and market library services through the CDL as suggested.

Suggestions for Other Resources and Services

The thirteenth and fourteenth questions asked respondents to suggest other services and resources that the UNT Libraries should consider and to provide other suggestions for improvement in the libraries' support of online education. Comments are pulled together as many overlap. As with most open-ended questions, some of the information provided is not necessarily related to online education but will be noted because it indicates what faculty need in general. Overall, there were 29 comments received.

LIBRARY TRAINING AND TUTORIALS

There were several comments suggesting a training session and additional or improved tutorials for library resources. One faculty member wrote, "I would like all first-year students to go through a (mandatory?) training or orientation session on the UNT Libraries and WebCTVista. There are so many times that I feel as if I am technical support for my students. My first lecture of the semester consists primarily of screen shots showing them how to navigate the system—and they still find it incredibly challenging. Our students seem to be very 'plugged in' to electronic devices, but not necessarily savvy about how the technology works. I spend so much time explaining it to them that I sometimes feel I am cheating my own subject." Shaffer et al. (2004) noted that most faculty members in their survey were transposing face-to-face classes into online classes without necessarily providing support for students in an online environment. Thus, the librarians spent a lot of time answering technology-related questions. Comments provided to the authors over the last year or so provide anecdotal support for the need for improved tutorials for both the libraries and WebCT. Students would have to use the tutorials, which can be difficult to get them to do, unless, as the professor above suggests, the tutorials are mandatory. As a happy medium, perhaps offering extra credit for the completion of the tutorials would ameliorate the issue. The UNT Libraries' LAN department has a help desk to assist with technological issues, which reduces the pressure on the librarians. There is also a tutorial for students to review concerning WebCT issues; however, having the students locate and use the help resources available rather than relying on the faculty member or the librarians does not necessarily happen. Shaffer et al. (2004) indicated that helping students with accessing library resources remotely and searching databases effectively would be helpful to faculty. The Librarian in the Classroom concept may serve this purpose as the use of the discussion threads provides a resource for librarians to provide solutions for ongoing issues and hints for assignments. Librarians can also send out mass communications to all students, should there be a resource issue or other widespread concern.

One respondent suggested that short iPod broadcasts might be helpful. Another respondent noted that more tutorials would be helpful and that the page for "Services to Distance Learners" be enhanced with tutorials linked from it. Hufford (2004), Markgraf (2002), and Stockham and Turtle (2004) also reported that faculty requested online help from librarians, including tutorials, class pages, and orientation programs for students.

A respondent noted that the course pages have been helpful but suggested that the liaison librarians contact instructors each semester to review the pages and see whether updates are required. Another faculty member suggested that the library provide some sample course Web sites or online course modules. One respondent noted that having a librarian to refer

students to would be helpful. She noted that this may be what the Ask A Librarian service is for; however, especially for upper-level and graduate classes, having a specific librarian to contact may increase the students' willingness to make contact. Shaffer et al. (2004) reported that faculty indicated that copyright clearance issues were the most significant obstacle to using library resources in online courses. This issue was not mentioned at all in the current study.

Plans to develop a series of interactive online workshops particularly for graduate students using Wimba Live Classroom are under way and will be trialed with a SLIS capstone class. In addition, some SLIS classes are requesting librarians to serve as guest lecturers to provide instruction and practical knowledge.

Overall, there is a need to market current services and resources, especially in terms of how these services can help faculty reduce the number of questions they receive on library resources and technical issues. The resources should be evaluated for their effectiveness and usability.

ONLINE RESOURCES AND REMOTE ACCESS

There were eight comments on the need for more online items, including journals and online books, and additional connections to a frequently used SLIS product. Cahoy and Moyo (2005) also noted that faculty requested more online items. Three respondents in this survey expressed a desire to minimize the number of interfaces students need to use. One of these respondents mentioned that students should also visit a physical library where possible. The UNT Libraries have capitalized on such popular interfaces as EBSCO and CSA, but there are still a number of different interfaces across the various disciplines. This concern may also relate to the need for effective tutorials and additional instruction on using the databases. One respondent requested that the libraries implement a metasearch function for the databases. The UNT Libraries are currently setting up a WebFeat trial. Another faculty member emphasized the issues with having students reauthenticate to get into the libraries' proxy server when they are already authenticated through WebCT.

MARKETING OF SERVICES AND RESOURCES

Several comments related to marketing the libraries' services and resources. One respondent suggested e-mail updates on new databases and new services. Another person thought that contacting faculty through the UNT eCampus system to remind them of services would be helpful. A new faculty member emphasized that services and resources should be communicated to new faculty. As suggested earlier, more coordination with the Center for Distributed Learning would be a good place to begin. The

UNT Libraries are included in the orientation sessions for new faculty, but these are voluntary. In addition, liaison librarians are requested to contact new faculty and offer their assistance. One respondent suggested that information in what other institutions, especially those considered to be the UNT's peer institutions, have done in support of online education would be appreciated.

Other researchers have found that marketing of library services and resources is needed (Adams & Cassner, 2001; Lebowitz, 1993; Shaffer et al., 2004; Stockham & Turtle, 2004). Stockham and Turtle emphasized that faculty wanted to be kept knowledgeable about library services and resources. Buck et al. (2006) noted that marketing is not a just a one-time event; repeated efforts are required. Cahoy and Moyo (2005) and Hines (2006) stressed that library services and resources should be integrated with courseware.

CONCLUSIONS AND FURTHER RESEARCH

By the end of the survey several respondents had mentioned that they felt "like broken records" responding that they did not know about the services. In retrospect, perhaps we should have emphasized that some services are new or less well known. The survey did serve its purpose, however, in improving awareness of the available services. Generally respondents were unaware of the services but those who used the services were fairly satisfied. Open-ended comments provided some suggestions for improvement. The major issues seem to be a lack of awareness of services, a problem that could be solved by more aggressive marketing of these services through liaison librarians, including links in courseware, enhancing collaboration with CDL, improving the usability of the Web site and databases, and adding to the functionality of the distance learners' page. There was also a surprising interest in having the UNT Libraries be more than a source of information for students, and move into instructing them. The question is how best to do this when faculty members are already pressed for time in classes. The Librarian in the Classroom service is probably the most marketable in terms of offering instructional support to faculty due to the high level of interest in the service, and the ability of the librarians to serve both group and individual needs as well as saving faculty time.

Future research may include a student survey examining use of student services and identifying improvements or needed services, faculty use and support of library resources and the relationship to their incorporation of assignments requiring the use of the library, and after marketing and improved use, a more specific survey on satisfaction with the services examined in the current survey. The authors appreciate the support of the UNT faculty, the CDL faculty, and their colleagues in conducting the survey.

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APPENDIX

FACULTY NEEDS FOR ONLINE/DISTANCE EDUCATION SURVEY

1. What role do you think the UNT Libraries should play in online education?
(Please select all the apply)
 - Provide library resources
 - Offer instruction in using databases and indexes
 - Offer information literacy (how to effectively find and utilize information)
 - Offer courses relating to the evaluation of information
 - Provide Websites that may be useful
 - Other _____
 (Please select all that apply)
2. How do students get information for your courses?
 - You supply a course package (print or online)
 - Refer students to the UNT Libraries Website
 - Refer students to their local libraries
 - Other _____
3. How much difficulty do you feel your students have in finding library information for their course work?
 - A lot of difficulty
 - Some difficulty
 - A little difficulty
 - Not much difficulty
4. What reasons do you feel students have difficulty finding and accessing reliable information for their course assignments?
(Please select all that apply.)
 - Relying on Google and other non-library Websites for information
 - Do not know how to search library-provided journal article databases

- Do not know how to use the library catalog to find books and other materials
 - Do not know how to evaluate the quality of a resource
 - Are not aware of library resources that they need to use
 - Other _____
5. The UNT Libraries provides an Ask A Librarian service located at <http://www.library.unt.edu/ris/ask-a-librarian> where students and faculty can ask questions via e-mail or online chat. Do you include a link to this in your course?
- Yes
 - No
- (pop out depending on answer: 5a)* If yes, please comment on the satisfaction with the service from both the faculty and the student perspective. If not, why not?
6. The Libraries provides the ability to put items on reserve in electronic form <http://www.library.unt.edu/circulation/reserve/reserve-materials-for-faculty#electronic-reserves>. Have you used this service?
- Yes
 - No
- (pop out depending on answer: 6a)* If yes, please comment on the satisfaction with the service from both the faculty and the student perspective. If not, why not?
7. Students in online courses are able to have library materials sent to them using the Distance Learners Request Form (information located at <http://www.library.unt.edu/circulation/information-for-distance-learning-students>). Do you or have you referred your students to this service?
- Yes
 - No
- (pop out depending on answer: 7a)* If yes, please comment on the satisfaction with the service from both the faculty and the student perspective. If not, why not?
8. The UNT Libraries provides an online tutorial for using the Libraries called UNTilt that can be added to online courses. Do you include UNTilt in your courses?
- Yes
 - No
- (pop out depending on answer: 8a)* If yes, please comment on the satisfaction with the service from both the faculty and the student perspective. If no, why not?
9. Subject liaison librarians will create a Web page for your courses that list valuable starting points and recommendations for resources to use? Examples located at <http://www.library.unt.edu/research-tools/class-pages>

Do you use this service?

- Yes
- No

(pop out depending on answer: 9a) If yes, please comment on the satisfaction with the service from both the faculty and the student perspective If no, why not

10. The Libraries can provide a means to allow you to set up direct links to specific articles in databases. Do you use this service?

- Yes
- No

10a) *Pop outs depending on answer:* If yes, please comment on the satisfaction with the service from both the faculty and the student perspective If no, why not

11. A recent service offered by the UNT Libraries is the Librarian in the Classroom where a subject specialist librarian is assigned to online courses to assist students with finding and using resources for assignments and papers.

How interested would you be in having this service added to your course?

- Very interested
- Somewhat interested
- A little interested
- Not at all interested

11a: Please comment/brainstorm on your thoughts on this service (text box). How can we make it most beneficial to you and your students?

12. Which UNT Libraries resources do you find useful when teaching online courses? Please comment on ones listed in the above questions or others such as the online journal article databases, online tutorials, etc. Please provide suggestions for improvements also. (open text box)

13. What other resources and services would you like the UNT Libraries to offer in support of online education for both faculty and students? (open text box)

14. Please provide comments or suggestions on the UNT Libraries' support of online education (open text box)

15. Please list your department (open text box)

16. How long have you been involved in offering online or distance education courses?

- 0–1 years
- 2–5 years
- 6–8 years
- 9+ years

Thank you for participating in the survey.

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