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Discovering Student Needs, Teaching Information Literacy, and
Designing Library 2.0-Based Services**

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Student Services in the 21st Century: Evolution and Innovation in Discovering Student Needs, Teaching Information Literacy, and Designing Library, 2.0-Based Student Services

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Student Services in the 21st Century: Evolution and Innovation in Discovering Student Needs, Teaching Information Literacy, and Designing Library 2.0-Based Student Services

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SUMMARY. The authors discuss the changing library needs of law students as computers, technology, and legal publishing evolve. In order to track the evolving needs of students, the authors discuss ways

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that librarians can survey students and explain how focus groups and usability tests can provide further insights regarding students' research skills and information needs. The article examines the literature regarding information literacy and suggests minimum standards for legal information literacy upon graduation, and the authors suggest new services that law librarians could create for law students. Next the authors examine the recent literature about Library 2.0 services, and offer suggestions on incorporating Library 2.0 principles into law library services. doi:10.1300/J113v26n01_08 [Article copies available for a fee from *The Haworth Document Delivery Service*: 1-800-HAWORTH. E-mail address: <docdelivery@haworthpressinc.com> Website: <<http://www.HaworthPress.com>> © 2007 by *The Haworth Press, Inc.* All rights reserved.]

KEYWORDS. Student surveys, focus groups, usage tests, information literacy, Web 2.0, Library 2.0, social reference managers, social bookmarking, collaborating tagging, del.icio.us, LibraryThing, citeulike, connotea, instant messaging, social networking, courseware, course management software, SecondLife

INTRODUCTION

With every wave of innovation in legal publishing and computer technology, law librarians must reevaluate the services they provide to students. Each generation of students has an ever-greater expectation of conducting research more easily and seamlessly, especially as the rate of change is rapidly increasing. Until the 1990s legal research had to be performed in a physical library; now, however, students expect to be able to conduct research anywhere that they can connect to the Internet, using wireless computers or even cell phones. E-mail has become a standard means of communication in law schools within the last fifteen years, but some are already questioning whether e-mail will be replaced by social networking Websites¹ such as Facebook.² During the 2007 American Association of Law Schools meeting Michael Harvey, a law student at Santa Clara Law School, noted that many law students use their Facebook accounts more than they use e-mail to communicate with friends. Mr. Harvey is not unique in his outlook; others in academia have noticed the decline in e-mail and the popularity of Facebook,³ a service that has only been available since February 2004 and has quickly become one of the most-used sites by college students, who check their Facebook profiles on average of six times per day.⁴ Providing library services for law students who primarily obtain information through participatory networking

sites such as Facebook may be just one way that law libraries will evolve during the 21st Century.

SURVEYS: DISCOVERING STUDENTS' EVOLVING LIBRARY NEEDS

To design student services that meet student expectations and needs in this rapidly changing environment, librarians must know how to identify and understand students' library needs. Surveys and other market research principles are excellent ways to determine what library services would most benefit students. When used properly, surveys are powerful assessment tools that can provide the answers to these questions and provide guidance on improving service and planning for the future.

Designing an Effective Student Survey

There are three parts to conducting a successful survey: assessment, analysis, and action.⁵

Assessment: Creation and Dissemination of the Survey

When selecting or creating a survey to use, librarians should keep in mind that the following features and choices will make a difference in the quality and response rate:

1. A set of core questions will enable you to establish benchmarks. These questions should ask for information regarding how often the library is used and for what purpose, how often reference assistance is requested, service satisfaction (circulation and reference), and use of print and electronic sources.⁶
2. User needs change rapidly; questions should be designed accordingly.⁷ Services, resources, or areas of interest will change quickly and these changes should be reflected in your survey.
3. Ample space for comments should be provided. A general, open-ended comments box always provides interesting data, but can be difficult to quantify or summarize.⁸ A more useful approach is to include a comments box on specific questions. This will enable students to explain their answers.

4. Student expectations should be managed. Students may desire services that are not feasible from a practical or financial standpoint. It is important to set expectations that the library can meet.⁹
5. Survey analysts must be open to ideas and needs that may not have previously considered. There is sometimes a tendency in academic libraries to believe that librarians know what is best for students and to blame them when library services and resources are under-utilized.¹⁰ Librarians must be open to new ideas, but also be careful not to promise or imply something that cannot be delivered.
6. An initial decision on whether to survey the entire student body, or just a sample of the student body, must be made.¹¹ It could influence survey design.
7. Avoid “survey fatigue” by limiting surveys of students to every other year or every three years. Also keep the survey short; it should take no more than ten minutes to complete.¹²

Analysis of Survey Results

Survey software will tabulate the results, but analysis is needed to determine if service goals are being met, where improvement is needed, and what types of new services might be offered. In general, there are several points to consider when analyzing quantitative data:¹³

1. The central tendency: mean (the average of the responses for a particular question), median (the middle of the responses), and mode (the response that is chosen the most often).¹⁴
2. Frequency counts: the frequency of different responses and the resulting percentages.¹⁵
3. Cross tabulations: “comparing responses using two variables,”¹⁶ such as the overall satisfaction of day students versus evening students.

Data from open-ended comments boxes will also need to be analyzed. Qualitative data is valuable when analyzing survey results, but can also be time-consuming and challenging to interpret. Data from comments boxes will clarify survey responses, but must be weighed carefully. In general, consider frequency and depth of comments when analyzing qualitative data.¹⁷ It is also helpful to use “cluster analysis” to organize responses under categories, such as equipment or facility.¹⁸

Dissemination of Survey Results and Action to Improve Service

Once the data has been analyzed, evaluate the survey results in terms of library goals for service and long-range plans. What immediate changes can be made to improve service? What new services should be offered? Survey results should be reported to your students as soon as possible. Identify any immediate changes you will make to improve service as well as future plans. It is important that your students know that improvements will be made as a result of the survey.¹⁹

LibQUAL+™: One Assessment Approach

LibQUAL+™²⁰ is a survey tool that was developed by the Association of Research Libraries (ARL) in collaboration with Texas A&M University Libraries. It has been in use for approximately six years. The structure and theory of LibQUAL+™ is based on SERVQUAL,²¹ an established method of measuring customer satisfaction that is widely used by a variety of institutions, especially those in the retail and service industries.²² While SERVQUAL was found to be a valuable survey tool, it needed to be modified to provide the best possible results for academic libraries.²³

The first LibQUAL+™ survey was conducted at twelve universities as part of an ARL pilot project in 2000.²⁴ LibQUAL+™ has since been further developed and refined, based on findings from the pilot project as well as yearly administration of the survey by participating institutions. The number of participating institutions has risen steadily over the years, with a high of 308 in 2003. Currently, 230 institutions are registered for the 2007 LibQUAL+™ survey.²⁵ A key feature of LibQUAL+™ is that participating libraries have online access to all participants' results, providing the ability to compare results with those of other libraries.

The LibQUAL+™ survey uses an approach designed to identify gaps between a patron's minimum, desired, and perceived levels of service. For each question, patrons are asked to rate between 1 and 9 the minimum level of service they will accept, the level of service they desire, and the level of service they believe that they are actually receiving.²⁶ The core part of the survey contains 22 questions and covers three areas: Affect of Service, Information Control (resources and equipment), and Library as Place. There are an additional fifteen questions that cover demographics and general satisfaction with library services. There is also an open-ended comment box. LibQUAL+™ does permit librarians to create categories of patrons, such as day student or evening student.

Separate survey reports are generated for each patron category that the library identified.

LibQUAL+™ can be a useful way to begin assessing library services. There are several strengths to LibQUAL+™, such as the ability to identify benchmarks and determine if those benchmarks are consistently being met; the ability to track trends; the availability of the gap scores to determine areas of importance to students; and, the ability to use norms to compare one institution's scores to the scores of other comparable institutions.²⁷ However, LibQUAL+™ is not intended to be the only type of data collection librarians perform for service assessment. LibQUAL+™ was originally developed as a normative measures tool, a way to identify best practices in institutions that regularly meet users' expectations for service.²⁸ LibQUAL+™ is considered a total market survey, one of several ways to listen to users.²⁹ The questions are therefore fairly broad, necessitating further assessment to determine which specific areas need improvement, and what type of improvement is needed. Valuable feedback can be obtained from the open-ended comments box on the LibQUAL+™ survey, but librarians will need to go further to discover how to best meet the needs of their students. Further assessment may be obtained via roundtable discussions, focus groups, or personalized surveys. Sample LibQUAL+™ questions used in the 2002 LibQUAL+™ survey are reprinted in Appendix I.³⁰

One of the strengths of LibQUAL+™, the ability to compare one's scores to those of peer libraries, is not widely available to law libraries due to low participation. No law libraries participated in 2000, 2001, or 2002, only one in 2003, twenty-three in 2004 (all as part of The Association of Jesuit Colleges and Universities Law Libraries), nine in 2005, and five in 2006.³¹ Only a few law libraries have conducted the LibQUAL+™ survey more than once (Georgetown University Law Library, Gonzaga University School of Law, and Brigham Young University's Howard W. Hunter Law Library). This lack of participation by law libraries could be due to several factors, cost being one. LibQUAL+™ costs \$2,850.00 per institution for a one-time survey.

For example, lack of participation may also be due to the value of the survey results for law schools. Law students have different needs than graduate students in other disciplines,³² as is demonstrated by comparing the 2004 LibQUAL+™ desired mean results for graduate students in law, health, and other disciplines. In general, Library as Place and Affect of Service are ranked higher in terms of importance to law students, while Information Control (resources and equipment) is ranked less important. Why is this? Library as Place is fairly easy to understand. Law

students spend a large amount of time in the law library and also form study groups, something which graduate students in other disciplines do not necessarily do. A comfortable environment with space for group study is therefore high in importance to law students.

Even if a library chooses to administer LibQUAL+™ or some other general survey instrument, more institution-specific information is needed to fully understand student needs. Building upon what librarians learn about their students through a LibQUAL+™ survey, librarians can then create localized surveys which are designed to provide more information about their students' specific library needs. For example, the LibQUAL+™ survey questions regarding customer service are broad and not specific to any department. A library may want to ask questions geared to determining how students use reference services and if they find the current services offered by reference librarians helpful. Similar questions may be asked for circulation and interlibrary loan service. LibQUAL+™ questions regarding equipment and databases are also fairly broad, so librarians may want to ask questions specific to the types of equipment and databases the library provides. In regards to "Library as Place," librarians may want to ask questions that will help to determine what specific improvements students would like to see in the library facility. Appendix II contains sample survey questions designed for these purposes, some of which were used in a recent survey of law students.³³

Personalized Survey Tools: Another Assessment Approach

Survey services such as Zoomerang³⁴ and SurveyMonkey³⁵ provide an easy way to create localized surveys that will help librarians to determine specifically which services are working and which are not working in their libraries. A carefully-written survey can identify ways to promote and teach existing services, assist in the planning for new services, and can help to manage students' expectations.

Surveys can also be used to introduce the idea of a new service. Student feedback will help determine if there is an interest in the new service and, if so, provide support for implementing the new service. Survey software is usually flexible and enables librarians to ask questions in a variety of formats, including questions that may be answered by selecting one answer from an array of answers, multiple answers, or an open-ended answer. Librarians may add a comments box to each question to allow respondents to explain their answers.³⁶ The results of a localized survey will provide the foundation upon which further

assessment is built by providing data on what types of follow-up focus group or roundtable discussions would be useful.

EVOLUTION OF LIBRARY SERVICES THROUGH MARKET RESEARCH

Surveys are just one way to learn what students need from the library. Market research techniques such as focus groups and usability tests are two ways to further identify needed library services and refine the resources that the library provides. By learning how a small group of people use a product or service, organizations can better design and market initiatives to their larger constituencies.

Focus Groups

Focus groups involve discussions among a small group of participants, led by a moderator who asks them to talk about a shared interest. The goal of the discussion is to collectively interview the members of the group and learn their perceptions about a topic and the basis for those feelings. Through their conversations the participants often suggest new services that organizations can offer, ways that the organization can improve a service, how to more effectively market services, and most importantly, the basis for their recommendations.³⁷

A recent article by Graham Walden offers the following points that a librarian should consider when designing a focus group:³⁸

- **Group Size**—As a general rule, discussion groups should contain between two and fourteen participants in order to have a robust discussion. Keep in mind that smaller groups are dominated by outspoken individuals and larger groups sometimes lack group cohesion.
- **Characteristics of the Group**—Individuals should be comfortable talking about the issue and have some knowledge about the topic.
- **Incentive**—In order to increase participation organizations often provide food and pay an enticement fee, usually \$25-\$50.
- **Scheduling**—An optimal time to conduct focus groups is during or immediately after normal business hours.
- **Approval**—In an academic institution the organizers may need to first complete human subject release forms before conducting the study.

- Role of moderator—The moderator must be prepared to stimulate the discussion, keep the group from veering off topic, and stop an outspoken participant from dominating the conversation.
- Questions—Before conducting a focus group the moderator must craft clear straightforward questions designed to start thoughtful discussion.
- Analysis and reports—After conducting the focus group the moderator should organize and classify the responses.

Usability Testing

While focus groups can help identify what services patrons need or want, usability studies are designed to test whether a product or service works properly and meets the patron's needs.³⁹ This is especially important to get feedback on library Web sites. Steve Krug, an expert on usability testing for Web sites, explains that there are two types of usability studies⁴⁰:

- “Get it” tests that determine whether users understand the purpose and function of a Web site, and
- “Key task” tests that investigate whether users can perform particular tasks on the site.

Under Krug's recommendation, anyone with a minimal knowledge of the Web can be a participant in a usability test. However, it is important to decide how many testers to recruit and how many rounds of testing to organize.⁴¹ An optimal test will have two to three rounds of testing, each using no more than five participants. Studies indicate that not much benefit is gained from having more than three people test a Website.⁴² After the first round of tests, a Web designer should fix the identified problems and then conduct another round of tests with three to four people. During the second round the participants may determine if the designers effectively fixed the problem and they may uncover other problems that the first testers could not find.⁴³ A third round of usability tests should verify that the developers fixed all of the identified problems.

Librarians have effectively used both focus groups and usability tests to develop and refine student services.⁴⁴ A 2002 article by Kim Vassiliadis and Lisa Stimatz, two instructional services librarians, provides a good example of this.⁴⁵ In preparation to teach students how to use a specific library online tool, the librarians conducted focus group interviews and

usability tests and learned that the students did not need research training. Instead, the results of the interviews and tests revealed deficiencies in the Web site that were preventing the students from effectively using the resources.⁴⁶

Vassiliadis and Stimatz advise reference and instructional librarians to regularly conduct market research studies. They point out two benefits from this process. First, these librarians are especially qualified to evaluate students' needs because they already identify a patron's information needs every time they conduct a reference interview. Instructional librarians are experienced in determining when a patron needs to learn a new skill and are in a good position to either teach students how to use a library system or to explain to the library's Web designer how to create systems that will better serve the students' needs. Secondly, by helping to build Web-based services that are easy for students to use, instructional librarians can spend less time teaching students how to navigate the library's Web sites and instead teach students advanced research skills and provide guidance on evaluating information.⁴⁷

WHAT DO LAW STUDENTS KNOW ABOUT RESEARCH

As a library plans its student services it is useful to investigate the literature about student research needs in the 21st century. At least two studies, discussed below, have found that law students lack both the technical skills to conduct research and the ability to effectively use the resources they do locate, a proficiency generally referred to as information literacy. Moreover, even if law students are competent at general research, rarely do they have the necessary skills for legal research.

A 2003 study at Boston University Law School, Northwestern University Law School, and The University of North Carolina at Chapel Hill surveyed 330 entering law students and asked them about their information seeking and evaluation skills.⁴⁸ Although the students viewed themselves as adequate to good researchers, the study revealed that they did not know how to answer basic research questions. Nor did many understand basic research-building concepts.⁴⁹ For example, when asked how they would find more recent research that follows up a known article, 42.1% incorrectly suggested using the bibliography in the article to find related articles. 20.6% did not know the answer and 4.8% suggested looking for articles in the library's catalog.⁵⁰

One of the most interesting results from the study was the students' confusion about the library catalog. Only 58.2% knew that it is a finding

tool to discover titles owned by the library, while 30.5% responded that the catalog also contains lists of respected scholars in a particular field, scholarly articles, and lists of university courses, confusing the library catalog with the university course catalog. Another 9.6% did not know at all what to find in a library catalog. The question seems to indicate that there is a fundamental misunderstanding of the different research tools in a library.⁵¹

In a 2005 article, Lee Peoples reports that, while teaching an advanced legal research class, he asked 28 third- and fourth-year law students the same basic research questions to determine if they had learned better research skills during law school. The results were stark. 41% rated themselves as good researchers, 26% rated themselves as very good, and 12% said that they were excellent researchers. However, of this group, 57% did not understand the content of a library catalog, and 39% did not understand basic Boolean concepts.⁵²

Peoples also asked the same 28 upper-level law students to complete a battery of legal research questions, using both print and electronic resources to find their answers. During this exercise they discovered that it is more effective and efficient to use a print digest than an electronic database to find cases that contain specific factual situations. However, students also found that they could more effectively use electronic resources than print digests to find cases that best explain a specific legal rule. During the study Peoples verified that continued research instruction helps students, as he found that students who had previously participated in research training opportunities were the best researchers. The study also revealed that students are devoted to electronic resources. Even students who missed questions while using electronic resources but answered them correctly with print digests still rated the print digest as less effective, and they asked for more instructions on how to use electronic terms and connectors searches.⁵³

INFORMATION LITERACY IN LAW SCHOOL

Collectively, the literature suggests that legal research instructional classes or programs must start with an assumption that the students lack basic research and information literacy skills. An illustration of these deficiencies occurred when one of the authors of this article taught a legal research class during the Spring 2005 semester. A research assignment asked the students to locate the Texas statute that set the minimum age for obtaining a tattoo. One smart and computer-savvy student cited

a Web site from the Texas Department of State Health Services that explained how the agency regulates the tattoo industry. The Web page cited to a Texas Administrative Code section that set the minimum age for a tattoo. The student knew how to find information on the Internet and even knew that information from a state agency can be trusted. However, the student lacked the information literacy skills needed to know the difference between a statute and a regulation, and why it is necessary to search for a statute even after locating an appropriate regulation.

Information literacy refers to the ability to identify when it is necessary to look for information, to know how to locate it, and to understand how to evaluate and use the information once it is located.⁵⁴ Those who are information literate understand how the information is organized and can later determine not only what kind of information is needed to solve a problem, but also how to interpret the information. The Association of College and Research Libraries provides the following standards for information literacy. Information literate people are able to:

- determine the nature and extent of information needed,
- access information effectively and efficiently,
- evaluate critically the source of the information and incorporate the information into the person's knowledge base,
- use information effectively to accomplish a specific purpose, and
- understand the ethical and social issues regarding the information and use the information ethically and legally.⁵⁵

For a law student to be information literate, in addition to the above, he or she must understand the following:

- The legal authority underlying each document as well as the hierarchy of legal authorities. For example, the information literate should know that a regulation must be authorized by a statute which must be authorized by a constitution, and the student must be able to use that knowledge to gain a better understanding of the law.
- The legal authority given to each law-making body. The Constitution grants federal courts far different authority than Congress grants to regulatory agencies. By understanding that distinction students can more easily grasp the dissimilar legal significance of decisions from the federal court and from a federal agency's appeals board.
- The various kinds of information that is available in each type of legal document. For example, the student should know that the

Federal Register has background information about each federal regulation and that Congressional hearing transcripts are significant sources of public policy considerations about legal problems.

- The appropriate usage of information from other disciplines and the legal significance of that information. For example, a good researcher knows when to look for a social science resource to predict the best interests of the child in a custody case, but one who is information literate understands the value of learning what kinds of social science has been persuasive in past custody litigation and searching for similar types of information.

DESIGNING AN INFORMATION LITERACY TUTORIAL FOR 21ST CENTURY LAW STUDENTS

Lee Peoples' study, discussed earlier in this article, illustrated that law students do not have basic legal research skills even in their second or third year of law school and that each school should teach information literacy skills beyond its basic legal writing course.⁵⁶ However, many law schools do not or cannot offer advanced legal research courses for all upper-class law students. In order to reach those students who want more legal research instruction than the law school offers, libraries should continue to create research guides and tutorials along with offering traditional reference services and more formal teaching. These library services will provide patrons with information resources that they can use in their own environment and at their own pace.⁵⁷

Elements of a Good Tutorial

Well-designed research tutorials explain issues of information literacy, such as why patrons should use specific library resources, what types of information is available through each resource, and how to evaluate that information.⁵⁸

In a 2005 study, researchers evaluated ARL Web sites to identify those that employed Web-based tutorials with active learning elements. The article defined active learning tutorials as those which explained research techniques, asked questions for the patron to answer, and provided feedback to explain the correct answers. Active learning tutorials kept the patrons' attention by requiring that they answer questions and by providing feedback that reinforced the information learned.⁵⁹ Of the

Web sites evaluated, 60% had active learning tutorials,⁶⁰ an increase from the 37% found in a similar 1999 study.⁶¹

In designing an effective research tutorial consider the following active learning techniques:⁶²

- multiple-choice quizzes with instant feedback,
- exercises that provide both instruction as well as a place for student activity (often separated into two frames or two browser windows, one for instruction and the other for activity),
- the ability to answer questions online and have the answers electronically sent to an instructor for grading or feedback,
- lessons that prioritize conceptual instruction,
- assignments that promote student collaboration,
- instructions state a clear objective or lesson plan,
- lessons that provide different channels for learning the topic (such as audio and textual channels), and
- instructions that offer ways to ask for further assistance from a librarian.

A 2006 study by Li Zhang, a research scientist, found that current tutorials are also more technologically sophisticated and more visually engaging, as they use active learning strategies and incorporate multi-media elements such as graphics, audio, or video.⁶³ While noting that there are at least two distinct learning styles, those who learn by listening, and those who learn by watching, the article points out that tutorials with audio-visual elements fulfill the need of both groups. The author suggested that tutorials include the following design recommendations:

- use text in clear and simple pages, to avoid overwhelming or confusing users,
- use color consistently throughout the tutorial to help the students identify the organization and relationships of the information,
- use graphics and visuals which aid the learning process by illustrating information in the tutorial,
- incorporate navigation tools which efficiently guide the student through the tutorial and allow the student to have control and flexibility over the learning process,
- integrate audio and video as alternative channels for students to learn information, and
- provide students with the ability to pause and repeat audio/video passages.

Online Tutorials Using Shockwave Flash

Librarians can provide students with interactive, engaging and informative tutorials and package them as audio or video files which students can download to their computers, iPods, or MP3 players to use on campus or away. Online tutorials can explain library resources, as well as highlight and promote key resources, and offer virtual library tours. While librarians might design most tutorials for the general student body, they could also design some to meet the specific needs of individual courses or groups of students. As students become more comfortable downloading audio and video files with music, radio, and television programs, they will also become more interested in downloading multimedia tutorials with library programming.

Shockwave Flash files⁶⁴ (also known as .swf files) are excellent formats for librarians to deliver interactive tutorials which can include images, video, and voice narration. Flash files store interactive video and audio documents. Librarians can incorporate Flash-based tutorials into a library's Web site by using one of several software packages.⁶⁵ Students can watch the tutorials in their Web browser after installing the necessary free software, such as Shockwave Player.⁶⁶ The files are compact and compatible with nearly all computers,⁶⁷ and can be designed to be accessible by users with disabilities.⁶⁸ Most importantly, there are now two commercial programs that produce professional quality flash tutorials without requiring great technical skills. The programs are TechSmith's Camtasia⁶⁹ and Adobe's Captivate.⁷⁰ These tutorial design programs will also allow librarians to create files with video clips, images, audio recordings, voice narration, and presentation slides, similar to PowerPoint slides. By using either program librarians could also generate online quizzes. With both commercial tutorial programs librarians can record onscreen demonstrations and incorporate them into an interactive tutorial.

LIBRARY 2.0 SERVICES: PARTICIPATORY NETWORKING

Web 2.0: An Atmosphere of Contribution

For several years, commentators have been suggesting that the World Wide Web has evolved into an interactive platform to which they refer as Web 2.0,⁷¹ an evolution from static Web pages into a platform that can deliver software capability directly into a user's Web browser. The

Web-based applications improve as more people use them, thereby creating an “architecture of participation.”⁷² The value of a Web 2.0 Web site is not the content provided on the pages, but the services that allow users to create social networks.⁷³ By gathering large groups of people online, Web 2.0 applications allow individuals to benefit from the wisdom of a large collection of opinions and experience.⁷⁴ Other Web 2.0 concepts include online programs that allow developers to continuously maintain and upgrade the software, in which “users are treated as co-developers,”⁷⁵ programs that are simple to use and designed for “remixability”⁷⁶ or “mash-ups” with other software applications (that is, combining features of several different programs), and software that works effectively in many different types of devices.⁷⁷

Amazon.com⁷⁸ is an example of a Web 2.0-based Website because it improves as more people contribute content to the site. Amazon’s product descriptions are superior to others because they include customer reviews, increasing the value of the Website each time someone submits a review. Amazon also provides customers with more product information through its feature labeled: “customers who bought this item also bought,” which allows patrons to identify items which may be of interest to them, based on what other customers have purchased.

Another example of a Web 2.0-based service is the online calendar on Google,⁷⁹ which enable users to maintain their calendars online, share them with other users, and automatically send event notifications to their cell phones. These calendar service is an example of the “remixable” aspect of Web 2.0 applications. Users can incorporate their Google calendars directly into the coding of their private Web site, even if that site is on a separate server from the calendar.

Yet a third example of a Web 2.0 application is Flickr.com⁸⁰ which allows users to upload photographs onto individual accounts on the Website, edit the image online, and create online communities of people with similar photography interests. The users can do all of their editing online and do not need to download photography software to manipulate the photographs and share them with others. In addition to being easy to use, Flickr.com is also highly accessible. Because it is Web-based anyone with an Internet connection can use it, whether over a Mac, Windows PC, Linux box, or a gamebox.

Significant Web 2.0 innovations are blogs, RSS feeds, podcasts, and wikis. A blog is a Website which an author can easily update and allow readers to comment on each posting.⁸¹ By allowing readers to post comments, a blog can create a forum for community discussion. Neither blog authors nor contributors need specialized software; they can add

content to the blog through their own Web browser. An RSS feed is a type of syndication that allows authors to distribute news or other information to subscribers, paid or unpaid.⁸² It is possible to read RSS feed content through specialized software such as RSS newsreaders. People can also incorporate RSS content directly into their own Websites, which are then automatically updated each time the RSS author adds new content. Podcasts use syndication feeds, like RSS feeds, which allow authors to distribute audio or video files.⁸³ Wiki software allows many people to collectively edit and update an article online.⁸⁴ Wikipedia is a popular and free wiki-based encyclopedia that is collectively authored and edited by anyone with a Web browser and Internet access.⁸⁵ Contributors can edit a wiki on the wiki's own Website, without using specialized software.

Libraries 2.0: Building Participatory Networking

Some librarians have embraced the Web 2.0 concepts discussed above (user participation, sharing, and simplicity), and have theorized that libraries should similarly change and become more participatory.⁸⁶ This movement is often called Library 2.0, and includes some of the following concepts, as recently articulated by Michael Stevens, a vocal advocate of Library 2.0 services.⁸⁷

- Ease of Use—library systems should be intuitive, such as Instant Message chat which is a very user-friendly way to provide chat reference service.
- Content Creation—libraries should provide venues for patrons to create content through Web applications such as blogs where many people can post topical information and comment on each other's postings.
- Content Sharing—libraries should provide content for others to use or reuse, such as RSS feeds which deliver information that can be integrated into other Web sites.
- User Participation—library Web applications should allow people to work collaboratively to create content, such as through wikis, online documents that can be collectively edited by many people.
- Social Interaction—since people create better learning environments by working together, in person or online through social networking Web sites, libraries should provide opportunities for patrons to collectively create wiki-based or blog-based research guides.

In a paper prepared for the American Library Association's Office for Information Technology Policy, a group at Syracuse University's School of Information Studies argues that libraries have a duty to use technology to help build participatory networks.⁸⁸ They embrace a "conversation theory" of knowledge that holds that people and groups learn through conversations, either orally or in writing. The authors argue that since the main goal of a library is to help people gain knowledge, librarians must work to promote broad conversations through participatory networking.⁸⁹ The Syracuse group asks that librarians not consider participatory networks a peripheral project, but treat them as integral parts of their libraries' missions.⁹⁰

Several libraries have started to offer participatory networks and other Library 2.0 services. The Ann Arbor District Library uses blog software to maintain its Web site. The library has also added a blog-like interface over its catalog which allows patrons to add reviews and comments. Patrons may also comment on each others reviews. Through this change the library has transformed its catalog into a platform for generating discussion and building participatory networks.⁹¹ The Plymouth State University Library also has a blog-based catalog that allows users to add their own comments.⁹²

By using podcast technology librarians may even deliver tutorials and other multi-media files directly to students.⁹³ The Oklahoma City Law Library offers a video podcast of a tutorial on Statutory research,⁹⁴ and the Center for Computer-Assisted Legal Instruction (CALI) offers several podcasts devoted to teaching law and legal research skills to law students.⁹⁵

Libraries have also begun to use wikis to provide services. For example, the St. Joseph County Public library used a wiki program to create several subject research guides.⁹⁶ Because they are available through a wiki, library patrons can contribute to the guides and collectively share knowledge.

Library 2.0 concepts are especially relevant to academic law libraries, because they directly fit with the pedagogy of American legal education. Law schools use the Socratic method of teaching to allow students to learn through a discussion. By using Library 2.0 services, law libraries can extend that collective learning experience outside of the classroom and help students share knowledge thorough participatory networks.

An Evolution in Online Research: Social Reference Mangers

"The most effective way to research a problem is to find a secondary source where someone has done the research and published the findings." This is the clichéd, but highly effective, advice that many librarians give

researchers who come to them for assistance. Social Research Managers (SRMs)⁹⁷ also known as social bookmarking services,⁹⁸ are online Web applications through which subscribers can bookmark documents such as Web sites, books, and scholarly articles. The usually free services also allow researchers to more easily share resources with each other and collaboratively share knowledge. SRMs invite researchers to retrieve their bookmarked items wherever they can connect to the Internet. Users can also catalog their bookmarked items with personal subject headings, known as tags. This is a new twist on finding “a secondary source where someone has done the research.”

SRMs are called *social* reference managers because they promote the participatory pooling of knowledge. Although most SRMs permit their users to keep their bookmarks private, the true value of social reference managers is the public sharing of bookmarks that enable participants to collectively gain knowledge. Through SRMs users can review the bookmarks of everyone who has bookmarked a common item and then discover what other documents those people have saved under the same or similar tags. For example, if a researcher with an account on an SRM finds a Web site that discusses copyright law for electronic reserves, she can bookmark it on a social reference manager, give it tags for “copyright” and “reserves” and then look at the bookmarks of anyone who had also bookmarked that Web site. The researcher can also look at all of the bookmarks of other people who have tagged that original Web site under the terms “copyright” and “reserves.”

By using an SRM, researchers have two new ways to locate and gauge the significance of documents. A library’s catalog will help a student find a book with the same subject heading as one assigned to a known book. SRMs provide similar information, but they also tell users how many people have tagged any given item, and allow participants to review the bookmark collections of others who share similar interests.

Knowing how many other people have tagged an item provides information about the popularity of each item. Resources are usually popular because they are clear, valuable, or groundbreaking. SMRs allow researchers to identify popular items quickly and read them before other less valuable documents. Another advantage of SRMs is the ability to locate the bookmarks of trusted researchers, recognized organizations, or topic experts. Learning that a trusted person or group has publicly bookmarked a resource gives additional validity to that item. In addition, an expert is likely to have bookmarks that are comprehensive bibliographies of the person’s specialty, or bookmarks that highlight the most valuable

documents about the topic. In most instances, a researcher will find a useful bibliography by locating an expert's SMR page.

One concern about SRMs is the lack of standardized subject headings to organize information. SRMs instead use tags, which are not part of a controlled vocabulary.⁹⁹ In order to address this concern, some SRMs have incorporated a system known as collaborative tagging, a service that provides users with the most common tags that other participants have used to label a given item. This information appears each time a user bookmarks a site. These services may also provide tag suggestions based upon an analysis of the site's unique identifiers, such as its URL.¹⁰⁰

Collaborative tagging systems are not yet as effective for research as traditional subject headings, because researchers sometimes still use imprecise or inconsistent tags which may not effectively collocate similar items.¹⁰¹ Even with these shortcomings, studies have found that collaborative tags are useful tools to find resources.¹⁰² Occasionally collaborative tags can improve upon traditional subject headings, specifically when they allow researchers to make classification distinctions that catalogers do not recognize. In an article about collaborative tagging, George Macgregor and Emma McCulloch suggest the following example. Library catalogers often link the topics "gay," "queer," and "homosexual" under a single subject heading, when each term may be distinct to a researcher in that field.¹⁰³ By tagging documents with one of these more specific tags, subscribers can make distinctions that general catalogers could not with a controlled vocabulary.

The best way to understand the value of SMRs is to evaluate the ones that are the most common. Examples of SRMs are del.icio.us,¹⁰⁴ a social bookmarking Website that allows people to collectively bookmark and share Websites, LibraryThing,¹⁰⁵ a service to save and share personal collections of books, and CiteULike,¹⁰⁶ a social reference manager that allows people to save and share scholarly articles.

del.icio.us—SRM of Websites

del.icio.us¹⁰⁷ is a free SRM service that allows users to bookmark Web pages, assign subject tags to each and publicly share their bookmarks with the world. To protect their privacy, individuals may make selected bookmarks private. As of August 2006 del.icio.us was the most popular SRM devoted to bookmarking Websites.¹⁰⁸

While sharing the collaborative research features of most SRMs, del.icio.us offers two additional services to help locate new literature. First, even without a del.icio.us account people can search for all items

bookmarked under a given tag. As a second service, del.icio.us offers a subscription service for account holders which is similar to a clipping service. A user can create a subscription for a specific tag and del.icio.us will provide a list of the most recent items saved under that tag by other members. Del.icio.us also allows users to easily create RSS feeds for these subscriptions. Through these features, each time someone publicly tags an item on del.icio.us he or she is notifying others about the new Web site. For common tags, such as "Library 2.0," this is an effective way to learn about new Web sites on that topic.¹⁰⁹

Libraries can use SRMs like del.icio.us to lead researchers to the most valuable information available on the Web. For example, libraries could create a del.icio.us profiles and use them to tag the most important Web sites on specific subjects of interest to its patrons. Through this service, academic librarians could contribute their expertise to del.icio.us as well as provide research support to their students. Law Librarians could create collections of bookmarks related to legal research generally, and other collections related to student organizations or specialized classes, clinics, or seminars.

LibraryThing—SRM for Personal Collections of Books

LibraryThing¹¹⁰ is an SRM service that allows people to create a personal catalog of their own books. For no charge, LibraryThing will provide catalog records for the first 200 books, after which it will charge a moderate fee. Additionally, the service allows members to find others with similar personal libraries and, hopefully, similar interests. Users can also rate and assign personal tags to each book, thereby adding value to each record and providing additional subject access beyond the Library of Congress subject headings. With a quick search, LibraryThing users can locate people who own similar books and might want to talk about their shared interests.¹¹¹ Participants can also identify the most popular books on any topic, amongst the LibraryThing community.

Based upon the success of LibraryThing, libraries should consider adding a new service of allowing patrons to share their circulation information with other patrons. Library catalogs typically do not track the popularity of materials, partially out of a desire to maintain the privacy of patron circulation records.¹¹² However, by February 2007 more than 151,000 people had created accounts on Library Things and cataloged 10,552,368 items.¹¹³ Participants have created personal profiles on LibraryThing in order to display their collections, and started nearly 1,500 user groups to discuss common interests.¹¹⁴ The popularity of

LibraryThing indicates that many people might find this information useful and are comfortable sharing their own reading habits with others.

Even if libraries do not allow people to publicly share their own circulation records, it would be helpful for researchers to be able to identify the most popular items in on a particular topic. North Carolina State University Library has recently released an OPAC that allows patrons to conduct a search and then sort their results by the most popular, based upon the items that have circulated the most.¹¹⁵ Privacy is a concern, so such services must be completely voluntary and within the bounds of each state's privacy laws. Patrons should be permitted to keep all or a selection of their circulation information private, but if they are willing to share their circulation history, libraries should offer the ability to use the library catalog as a means to build participatory, collaborative learning communities, such as that offered by LibraryThing.

CiteULike—SRM for Journal Articles

Web-based services such as CiteULike¹¹⁶ bring social research management to scholarly articles. This service allows users to simultaneously search a variety of e-journal vendors, institutional repositories, and other online providers of scholarship. Researchers can bookmark articles, assign subject tags to each, purchase or download articles through a library's online license, and identify other articles that researchers have similarly tagged.¹¹⁷ CiteULike supports a wide variety of journal archives and also permits researchers to upload electronic copies of articles that are not available through CiteULike. With a CiteULike account, people can create online collections of their research, easily accessible via the Internet.

SRMs for scholarly articles are especially relevant to law students who may need to locate and manage large collections of resources while researching legal issues. Law librarians should teach students how to consistently and meaningfully tag their research so that everyone can easily benefit from each others' knowledge.

LIBRARY 2.0: PROVIDING SERVICES WITHIN THE STUDENT'S ENVIRONMENT

While discussing Library 2.0 theories, some experts have suggested that library services should be available wherever students need information.¹¹⁸ Research is no longer a special errand that must be done

within the confines of the physical library. Most students, for example, have spent years using search engines like Google off campus during the course of their normal day. Libraries should capitalize on this pre-existing knowledge and bring information services into their patrons' own spaces.

Instant Messaging Chat Reference

One way that libraries can make services directly available to students is to offer chat reference. Librarians can offer Internet-based chat services using two different systems: call center software (CCS) or through instant messaging (IM). Both enable people to trade text-based messages in near synchronous real-time.

CCS, such as QuestionPoint¹¹⁹ or LivePerson,¹²⁰ is a type of software that allows a company's service representatives to accept and manage consumer questions. Using CCS programs, librarians can triage questions and forward them to the right library staff member for resolution.¹²¹ The advantage of using these commercial chat programs is that patrons do not need to create personal accounts or download specialized chat software; only the library needs to have the software. The programs also allow multiple reference librarians to simultaneously monitor the chat traffic and collaborate online while answering questions.¹²²

Due to the increased popularity of instant messaging, some libraries have started to move away from CSS systems, replacing them with IM reference service.¹²³ IM chat services are available through Internet services such as AOL's AIM,¹²⁴ Google Chat,¹²⁵ Yahoo! Messenger,¹²⁶ or MSN Live Messenger.¹²⁷ Most of the services require subscribers to download and install chat software in order to trade IM messages. Subscribers to any of these free networks can chat with other members. Each IM service allows users to add people to a list of "buddies." Every time users log onto an instant messaging service their IM program will indicate if their buddies are online and available.

Students who conduct an IM chat with a library's reference desk automatically add the library to their own buddy lists, enabling them to easily reach out to the library when they need help.¹²⁸ The students' buddy lists will also remind them each time they use IM that the library is available for IM chat reference. In that manner libraries are providing services to patrons in their own space rather than requiring them to go to the library for reference assistance.¹²⁹

One advantage of offering IM reference is that university students and teens are already using IM to communicate with friends around the world.¹³⁰ In 2004, the Pew Internet and American Life Project found

that 42% of Internet users reported holding conversations through IM systems.¹³¹ This amounted to approximately 53 million American adults. The report found that 24% of those users swap IMs more frequently than email messages. Furthermore, 62% of Internet users between the ages of 18 and 27 reported using IM.¹³² Of that group, 57% reported using IM more than email.¹³³ In 2001, a similar study found that 74% of teens between the ages of 12 and 17 who use the Internet also used IM messaging.¹³⁴

SUNY Morrisville College has been offering IM chat reference over AOL since 1998. Whenever and wherever SUNY Morrisville students need research assistance, the SUNY buddy icon on their IM program will remind them that they can quickly and easily ask a reference librarian for help.¹³⁵

Social Networking Services

IM-based reference is just one way to provide services within students' own environments. Another way to take library services to the student's own environment is to create library accounts on social networking Web services, such as MySpace¹³⁶ and Facebook.¹³⁷

Social networking services allow users to create personal profiles and link to friends, creating an online social network.¹³⁸ Users may trade messages with other members of the same network through instant messaging, by submitting public comments on a friend's profile page, or by sending event invitations to a group of friends. Social networking sites are increasingly popular; a 2006 New York Times article reported that over 5 million college students used Facebook and checked their profile for messages an average of six times per day.¹³⁹ In January 2007 the Pew Internet Project found that 55% of teens between the ages of 12 and 17 had a profile on a social networking site. Of that number 48% checked their profile daily or more often.¹⁴⁰

Libraries are already starting to provide services through social networking accounts. For example, the Brooklyn College Library reports that they effectively provide library services through institutional accounts on both MySpace and Facebook, thereby delivering library services through networks that students are already using.¹⁴¹

Library Services Through Courseware and Other School Online Applications

Law Librarians should also consider providing library services through online course management services, sometimes called courseware.

Through courseware such as Blackboard¹⁴² or TWEN,¹⁴³ teachers and students share documents, trade messages, and participate in chat sessions. Some law professors require their students to regularly check their courseware accounts and may even grade students based upon how often they participate in discussions through the class's courseware site. As courseware becomes part of law students' daily lives it is important for librarians to consider ways to provide library services through course sites. For example, librarians could work with courseware developers to add library catalog or circulation information directly into the courseware site for each of the school's courses.

Each time students log onto their courseware they see all of the courses in which they are enrolled. In order to remind students about library services, libraries could create library-themed course modules on their school's courseware and invite the entire student body to participate in the online discussion. Such a module or "course" could provide updates about library innovations, offer chat reference, allow users to submit comments to the library, or appeal library fines.

Courseware may not be the only online application that a school uses to communicate with students. For example, law libraries could partner with school administrators to add circulation information such as fine payments and book renewal features directly onto the school's financial aid Web applications or personal university portals.

Library Services in Virtual Reality: SecondLife

Yet another way that libraries are delivering services directly to students is by providing reference services through virtual reality games or worlds, such as the online world of SecondLife,¹⁴⁴ a 3D world where residents interact with each other through avatars. A group of residents created a virtual library on an island in SecondLife known as "Information Island."¹⁴⁵

As of February 2007, more than 3.7 million residents inhabited SecondLife,¹⁴⁶ and companies such as Dell, Adidas, GM, and Reuters conduct business in the 3D online world.¹⁴⁷ SecondLife residents can do almost anything they could in the real world, including attending law school classes. During the Fall 2006 semester, students of Harvard Law School's CyberOne course created avatars and attended classes in Harvard's virtual building within SecondLife.¹⁴⁸ If student work within SecondLife increases, it would be valuable for law school libraries to create virtual reality reference desks there to better support the specific research needs of their patrons.¹⁴⁹

CONCLUSION

As computer technology and legal publishing evolve, so too will the information needs of law students continue to change. In order to keep abreast of these changes librarians should consider new ways to determine students' needs through new library surveys, focus groups, and user tests. Librarians must also define legal information literacy skills and consider how librarians can teach those skills to students. Only by combining this information can librarians begin to design services that will assist students to realize when they need to find legal information, how to find legal information, and how to use the information they find. Finally, in order to deliver services through the best available means possible, librarians must remain aware of new social networking tools and find ways to use those tools to deliver library services directly to students in their familiar online environments.

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150. This report was produced by LibQUAL+™ for The Catholic University of America Law Library. LibQUAL+™ is a suite of services that libraries use to solicit, track, understand, and act upon users' opinions of service quality. These services are offered to the library community by the Association of Research Libraries (ARL). For more information, visit <http://www.libqual.org/>.

151. Some of these survey questions were used by Catholic University of America, Judge Kathryn J. DuFour Law Library. Other questions were inspired by researching this article.

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APPENDIX I: LibQUAL+™ Core Questions Summary for Law Students¹⁵⁰

The LibQUAL+™ survey contains twenty-two core questions. Respondents are asked to indicate on a scale of one to nine their minimum, desired, and perceived level of service for each question. The following are the results for these core questions for law students for the LibQUAL+™ survey conducted by Catholic University Law Library in 2004. This chart illustrates the Gap Theory of Service Quality, upon which LibQUAL+™ is based. The Adequacy Mean number is the gap between the minimum level of service a patron will accept and the patron's perception of actual service received. The Superiority Mean number is the gap between the level of service a patron desires and the patron's perception of actual service received.

ID	Question Text	Minimum Mean	Desired Mean	Perceived Mean	Adequacy Mean	Superiority Mean	n
Affect of Service							
AS-1	Employees who instill confidence in users	5.90	7.66	6.90	1.00	-0.76	204
AS-2	Giving users individual attention	5.91	7.38	6.85	0.94	-0.53	204
AS-3	Employees who are consistently courteous	6.88	8.18	7.81	0.93	-0.36	222
AS-4	Readiness to respond to users' questions	6.74	8.02	7.53	0.79	-0.50	202
AS-5	Employees who have the knowledge to answer user questions	6.91	8.12	7.31	0.41	-0.80	207
AS-6	Employees who deal with users in a caring fashion	6.49	7.86	7.38	0.89	-0.48	206
AS-7	Employees who understand the needs of their users	6.69	7.91	7.37	0.68	-0.54	202
AS-8	Willingness to help users	6.68	7.88	7.37	0.69	-0.51	206
AS-9	Dependability in handling users' service problems	6.93	8.03	7.21	0.28	-0.82	193
Information Control							
IC-1	Making electronic resources accessible from my home or office	6.72	8.18	6.89	0.17	-1.29	206
IC-2	A library Web site enabling me to locate information on my own	6.83	8.16	7.05	0.22	-1.11	218
IC-3	The printed library materials I need for my work	6.72	7.89	7.16	0.44	-0.73	210
IC-4	The electronic information resources I need	6.87	8.10	7.13	0.26	-0.97	212
IC-5	Modern equipment that lets me easily access needed information	7.06	8.24	6.95	-0.10	-1.29	217
IC-6	Easy-to-use access tools that allow me to find things on my own	6.69	8.04	7.02	0.33	-1.02	212
IC-7	Making information easily accessible for independent use	6.84	8.04	7.22	0.38	-0.82	211
IC-8	Print and/or electronic journal collections I require for my work	6.99	8.10	7.24	0.25	-0.86	191
Library as Place							
LP-1	Library space that inspires study and learning	6.81	8.22	6.96	0.15	-1.26	221
LP-2	Quiet space for individual activities	6.88	8.12	6.93	0.05	-1.20	220
LP-3	A comfortable and inviting location	6.75	8.17	7.33	0.58	-0.84	218
LP-4	A getaway for study, learning, or research	6.71	8.21	7.03	0.32	-1.18	217
LP-5	Community space for group learning and group study	6.39	7.82	6.87	0.48	-0.95	213
Overall:		6.69	8.03	7.16	0.46	-0.87	222

APPENDIX II: Sample Student Survey Questions¹⁵¹

1. Please indicate how often you use the library.
 - (a) Every day
 - (b) 2-3 times per week
 - (c) Once a week
 - (d) 2-3 times per month
 - (e) Once a month
 - (f) Other
2. Please indicate why you use the library.
 - (a) Study
 - (b) Research
 - (c) Computing
 - (d) Other
3. Please rate the level of service provided by the Circulation Staff (e.g., checking-out books, course reserves, etc).
 - (a) Excellent
 - (b) Good
 - (c) Fair
 - (d) Poor
 - (e) Comments
4. Please rate the level of service provided by the Reference Staff.
 - (a) Excellent
 - (b) Good
 - (c) Fair
 - (d) Poor
 - (e) Comments
5. How often do you seek assistance from the Reference Staff?
 - (a) Never
 - (b) A few times per semester
 - (c) Monthly
 - (d) Weekly
 - (e) Other
6. Please rate the availability of the Reference Staff.
 - (a) Excellent
 - (b) Good
 - (c) Fair
 - (d) Poor
 - (e) Comments
7. Do you prefer to perform research:
 - (a) In the law library
 - (b) Home
 - (c) Other
8. Please indicate the area(s) of legal research with which you would like more assistance (multiple selections are okay).
 - (a) Caselaw/Shepardizing
 - (b) Statutes
 - (c) Administrative law materials
 - (d) Legislative histories
 - (e) Foreign & International Law
 - (f) Online databases
 - (g) Bluebooking
 - (h) Government documents

- (i) Local jurisdictions
 - (j) None of the above
 - (k) Other
9. Please indicate which type of research instruction you find most helpful (multiple selections are okay).
- (a) Presentations provided by librarians in existing law school classes
 - (b) Presentations provided by librarians outside of law school classes
 - (c) Paper guides
 - (d) Online guides
 - (e) One-on-one instruction
 - (f) Interactive tutorials
 - (g) Podcasts (virtual tours, seminars, etc.)
 - (h) None of the above
 - (i) Other
10. Please indicate how successful the library's online resources are in meeting your research needs.
- (a) Excellent
 - (b) Good
 - (c) Fair
 - (d) Poor
 - (e) Comments
11. Please indicate which of the following databases you find most useful (multiple selections are okay).
- (a) HeinOnline
 - (b) Online Journal Finder
 - (c) CCH Internet Research Network
 - (d) BNA Electronic
 - (e) LexisNexis Congressional
 - (f) UN Treaty Collection
 - (g) Index to Legal Periodicals
 - (h) Index to Foreign Legal Periodicals
 - (i) LLMC Digital
 - (j) Pike and Fischer
 - (k) Legaltrac
 - (l) WorldCat
 - (m) None of the above
 - (n) Other
12. Please indicate why you use the library Webpage (multiple selections are okay).
- (a) Online catalog
 - (b) Exams database
 - (c) Course reserves
 - (d) Library information
 - (e) Online databases
 - (f) Research guides
 - (g) I never use it
 - (h) Other
13. Do you find the library's Webpage easy to use?
- (a) Yes
 - (b) No
 - (c) If no, please list reasons
14. Please indicate what features you would like to see on the Webpage (multiple selections are okay).
- (a) Library blog (library news, research tips, etc.)
 - (b) Wikis (on legal research, or specific topics such as Communications Law)

- (c) RSS feeds
 - (d) IM Reference assistance
 - (e) None of the above
 - (f) Other
15. Please indicate if you use the following online catalog features (multiple selections are okay).
- (a) Renew books
 - (b) Saved searches
 - (c) Reading history
 - (d) Ratings
16. Please indicate how successful the library's print resources are in meeting your research needs (this includes books, journals, newspapers, etc.).
- (a) Excellent
 - (b) Good
 - (c) Fair
 - (d) Poor
 - (e) Comments
17. Do you find the library atmosphere conducive to studying?
- (a) Yes
 - (b) No
 - (c) If no, please list reasons
18. The following equipment in the Library is adequate for my research needs (multiple selections are okay).
- (a) Laptop printers
 - (b) Network printers
 - (c) Photocopiers
 - (d) Computers
 - (e) Other
 - (f) Comments