In 1994, the world’s first freely available web browser became available to the public (Pew Research Center, 2005). At the time, no one knew the implications this would have on libraries, but over the past thirteen years, the internet has fast become the place people turn to find information. “People not only socialize online, but they also incorporate the internet into their quest for information and advice as they seek help and make decisions” (Pew Internet & American Life Project, 2006, para. 2).

In 2006, OCLC released a report (De Rosa, Cantrell, Hawk, & Wilson, 2006) that showed 87 percent of college students had visited a college library, while only 57 percent had visited a college library’s website. When asked what information sources they will consider the next time they need information, 72 percent of college students stated their first choice was a search engine while 10 percent replied the online library would be their starting point. Additionally, when asked where they actually began their research, 89 percent of college students stated that they started their research by searching for information using an online search engine, whereas only 2 percent started with the library’s website.

A big part of the problem with the online library experience is library users often have trouble determining which library resources to search in order to find relevant information about their topic, or even where to start on the library’s website (Jiao & Onwuegbuzie, 2002). When they use a web search engine however, they are given very simplistic options and can usually find a wide range of information about any given topic. Survey respondents of the OCLC study were asked for their impressions about the retrieval sources they used to find information. Approximately 56 percent of total respondents had a very favorable impression of search engines, whereas only 17 percent had a very favorable impression of the online library (De Rosa et al., 2006). Another study explored undergraduate students’ perceptions about the internet. Over half of the respondents stated that searching the internet was more efficient in finding information than searching the library (D’Esposito & Gardner, 1999).

As there are many reliable information sources on the web, users are no longer attracted to the wealth and depth of resources that are available in their libraries (Pew Research Center, 2005). Information seekers have become accustomed to the simplistic search options delivered by Google and other search engines for retrieving information, as opposed to library systems where one must first determine which particular database or resource to use in order find relevant materials (D’Esposito & Gardner, 1999). Consequently getting users to look at the library’s resources has become a challenge for many librarians. “Libraries need to find ways to make their information access systems more approachable by students” as well as to “find ways to increase their presence in general Web search engines” (Lippincott, 2005, p.57). LibX is a tool that libraries can use to help link users to their library’s resources within one click of a mouse. But what is LibX? Why should libraries use LibX? How can libraries promote their own editions of LibX?

LibX is an open source Firefox extension that provides seamless access to a library’s collections while a user is searching the internet. It was co-developed by Annette Bailey, Digital Assets Librarian, and Dr. Godmar Back, Assistant Professor of Computer Science, at Virginia Tech in 2005. The idea behind the extension is simple: imbed access to a library’s collection using a toolbar that is integrated into the Firefox browser. Therefore, as users search the internet, they are able to view their library’s collections and resources with one click of their mouse. As a result, LibX allows users to access the information resources
provided to them by their library, without the user having to know which library database or resource it came from.

**HOW DOES LIBX WORK?**

LibX is a versatile tool that can be used in a variety of ways throughout the research process. Each library has its own edition; therefore, their community users are directed to the resources available to them through their own library. As a user is viewing a website about a particular topic, they can instantly search their library’s catalog, databases, or other resources from that web page with one click of their mouse. LibX saves the user from having to open another browser to go to their library’s website, or copy and paste the terms from a webpage into a database that may or may not be the correct one to search. The three main features are the toolbar search option, a right click menu option, and visual cues LibX places on web pages. Each feature is explained below.

**Toolbar Search Options**

The toolbar search option is a dynamic feature and customized for each library (Figure 1). Each edition created for a library is specific to the resources available through that library. Library users can type their search terms into the toolbar and select the general resource and field(s) they want these terms to be located in for a result to be retrieved. In Figure 1, the resource being searched is Addison, the Virginia Tech catalog.

![Figure 1](image)

**Context Menu**

The right click menu offers a quick way for users to access their library’s catalog or run a search in Google Scholar to locate an article of interest (Figure 2). Users need only highlight the text on any web page they happen to be on and then use the right click feature on their mouse to open the context menu. From there the user can search their library’s catalog, or they can automatically submit the query through Google Scholar to determine if access is available through their library. If a user chooses to search the catalog, they have the option of searching the highlighted text as a keyword, title, or author. Using the right click context menu, users also have the ability to reload the page via their library’s EZProxy or WAM server if their current computer is outside of their institution’s IP range to access online articles. This feature allows the user to sign into their proxy service without having to remember to first to go to their library in order to access the electronic resource.
Visual Cues

LibX is able to place a small icon for the library on web pages that have resources related to the library’s collection (Figure 3 - the Virginia Tech library symbol is to the right of the book title). These localized cues are able to be seen on sites such as Amazon, Barnes & Noble, Books in Print, New York Times Book Reviews, Yahoo! Search, and Google, as well as many other web pages. Additionally, LibX is able to incorporate autolinks in web pages that have ISSNs, ISBNs, Digital Object Identifiers (DOIs), or other identifiers. For any web page that lists one of these electronic identifying devices, LibX will create a link to the library’s collections using the library’s catalog or OpenURL resolver to determine if a copy of the material is available through that library.
**Is LibX Effective?**

A recent study analyzed the efficiency and accuracy of using LibX to retrieve known citations. The goal of the study was to determine how effective LibX was in connecting a researcher directly to their library’s resources with one click. The results showed that LibX was successful 81% of the time linking users to the resource in one click, with average precision of 94% that the correct item was retrieved (Bailey & Back, 2007). This study exemplifies the ease in which LibX is able to effectively link users to their library’s resources without the user having to directly search any of the library’s databases.

**Promotion and Education About LibX**

LibX is a robust and powerful tool for academic, public, and special libraries to incorporate into the services offered for their users. Once a LibX edition is “live” for a library and there is at least one in-house librarian expert to instruct fellow librarians and users how to use the tool, the next step is to market LibX to the library’s users. Unfortunately, marketing is not necessarily something many librarians want to spend a lot of time on, and some administrators may not want to invest money in marketing campaigns. Yet for a product or service to survive, the outside world needs to be aware of how it can benefit them in order for there to be a desire to obtain and use the product or service.

**The Marketing Basics**

When it comes to marketing, there are a few concepts to keep in mind. First, the marketing mix is comprised of the Four P’s: product, price, position, and promotion (Chmelik, 2006). Defining the four P’s is not always simple. While the product is obvious, price can be a bit tricky to define. For example, LibX is a free tool but there is a nominal associated cost in the time it takes to learn and implement it into a library’s environment. Position refers to the distribution of the product, while promotion addresses how information about the product will be communicated to the user community. By addressing all four of these components, librarians can begin to develop a strong marketing plan. The marketing plan itself has several factors that can be implemented to provide a strong platform in which to inform and maintain a constant stream of users.

**The Marketing Plan**

A good marketing plan identifies what it is that needs to be accomplished and establishes one or two focused goals and objectives that can be measured over a set period of time (Graham, 1995). Once the goals and objectives are in place, a well-defined message can be extracted (Neese, 1998). In order to promote a product successfully, librarians must establish who it is they are trying to reach, determine a distribution method that will effectively reach that audience, and then repeatedly send the message in a variety of different formats (Henderson, 2005; Levinson, 1996; Neese, 1998). Librarians need to be aware that “all marketing efforts achieve more efficient and effective results when they are directed toward smaller subsets of a larger market” (Dimick, 1995, p.465). Initial promotions should be directed at the library’s known users, as “it costs one-sixth as much to market to an existing customer as to a non-customer” (Levinson, 1996, p.84). Additionally, word of mouth (WOM) is a strong promotional tool which has been proven to “influence a variety of conditions: awareness, expectations, perceptions, attitudes, behavioural intentions, and behaviour” (Buttle, 1998, p.242). Another effective tool is developing strong connections with users by building lasting relationships. While this takes time to develop relationships, in the long term it allows for libraries to better adapt to their users needs based on changing information climates (Dimick, 1995).

We at Virginia Tech have promoted LibX in a variety of ways, both to outside institutions to promote the creation of new editions, as well as to the Virginia Tech community to enhance the access to our library’s collections and resources. Our message to both remains simple and well-defined: use LibX to connect your users to your library’s resources.

**Promotion of LibX to Institutions**

WOM has been a highly effective marketing tool. Members of the LibX Team began presenting LibX at technology-focused library conferences early in 2006, and from these niche conferences, WOM about LibX has spread throughout the library community. Team members have been invited to speak about LibX at numerous conferences, institutions and universities, and library association meetings. Discussions about LibX have appeared in LibX to library conferences, and as the system grows, so do our findings about how LibX is being used. Our future plans include disseminating knowledge about LibX to subject areas outside of librarianship, so that researchers are aware of how LibX can assist them in their quest for information.

We have developed several promotional tools for LibX. From the beginning, there has been the LibX website, located at http://libx.org, where information about the LibX project, publicity notices, and the LibX listserv can be found. At the 2007 ACRL conference, we distributed over 150 LibX business cards to attendees. We are currently looking to create other small promotional items such as pens, mugs, and T-shirts to give to usability study and focus group participants so that they can further promote LibX for us across their own social circles. We also plan to host a LibX conference where librarians will be able to discuss how they have adapted LibX into their library, how it has affected the usage of their resources, and what future implementations and services would provide further benefits for their users.
Using Instructional Methods to Promote LibX to Users

WOM has been critical in promoting LibX to our campus community in a number of ways. We have demonstrated LibX to faculty in a variety of the colleges. Once we get their “buy in,” they have either shown LibX to their students or have asked a librarian to give a session on how LibX can help students with their research. We also offer a variety of open instructional sessions to demonstrate the flexibility and usefulness of LibX to our users throughout the research process. In the development of the instruction formats, we recognized that individuals have different learning styles, or certain characteristic strengths or preferences in which the individual processes information (Felder, 1996). To address these styles we have incorporated a variety of ways in which to address visual, textual, auditory, and tactile learners so that our users are given equal opportunities to learn the skills that are being presented.

Teaching users in-person allows for interaction between the instructor and the students. Our sessions use a lecture format to reach the auditory learners, incorporate a demonstration to address the visual learners, offer a hands-on exercise for the tactile learners, and provide frequent pauses for our textual learners. We are able to offer in-person instruction sessions about LibX in a variety of formats. We have shown LibX during general library introduction sessions, in subject specific bibliographic instruction sessions, as a part of our short course “Learn how to use…” series, and throughout our semester-long “Library Research Skills” graduate classes. In each of these educational sessions there are visual and verbal cues given by participants so the instructor is able to address any areas of confusion, or place more emphasis on one learning style based on the attendees of the instructional session.

To reach our university community in the virtual world, we have created a few different online learning options. The first is a static webpage that describes what LibX is and how it works. This is designed primarily for the textual learners who retain information primarily through reading. To address the other three learning styles in greater proportions, using Adobe Captivate, we recently developed two movie-type tutorials. The first, http://www.libx.org/screencasts/Basic_search_tutorial_fs.htm, is presented as a lecture format where the user watches and follows along. The three learning styles that are addressed are auditory, visual, and textual. To reach the tactile learners, we took the above tutorial and created an interactive component where users must enter in the required information in order to proceed to the next section of the tutorial (http://www.libx.org/screencasts/Interactive_basic_search_tutorial.htm).

OUTCOME OF THE MARKETING AND INSTRUCTION PLANS FOR LIBX

As of April 2007, over 11,900 LibX editions have been downloaded by users for the 46 libraries across the U.S., U.K., Canada, and Australia that have adopted live editions. An additional 83 libraries from around the world have created a test edition of LibX for their library. Additionally, in less than eighteen months since its release in 2005, over 1,040 Virginia Tech editions of LibX have been downloaded by the campus community (Bailey & Back, 2005).

THE FUTURE OF LIBX

LibX continues to grow. In September 2006, the LibX Team received a National Leadership Grant from the Institute of Museum and Library Services (IMLS) to be used toward the development of an Internet Explorer version of LibX and to create a system in which a library can build and maintain their own LibX edition. In addition, the LibX team will be exploring the usability of LibX in a variety of library environments, the beneficial instruction tools used to teach users how to use LibX, and the effectiveness of promotional and marketing techniques to increase use and knowledge about LibX.

REFERENCES


