

NATURAL PARTNERS: LIBRARIES AND OPEN SOURCE INITIATIVES

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## **Abstract**

This paper examines how open source software follows the ethical and philosophical resolves of libraries and the role that libraries can play in open source resources and initiatives. It examines whether librarians feel ethically compelled to participate in the “culture of sharing,” and, if libraries do commit to OSS, what might be the ripple effect? It discusses how libraries are affected by open access and how they make an effect on the OSS movement as well as if they are leaders in regards to new technology. Finally, it looks at the role of libraries as part of the ideology of the open movement.

## Natural Partners: Libraries and Open Source Initiatives

Open Source resources share the ethical and philosophical resolves that libraries and their advocates have espoused for decades. A community's investment in open source initiatives and libraries would propel the success of both resources through mutual propagation. With their adoption of open source technologies and resources, libraries can help to foster innovation within libraries themselves, and, possibly, to the greater population of individuals. Library employees may feel called to help advocate for open source initiatives to "stand up for libraries as evolving organizations ready for the challenges of the future" (Jaffe, 2007, p.13). Additionally, both library personnel and open source groundbreakers have demonstrated commitment to societal freedoms. Through the bond that open source resources and libraries share, libraries can play a significant role in open source resources and initiatives, both in their advocacy and their development.

### Shared Resolves

There are many facets in which libraries and the open source community have overlapping interests. Libraries may turn to open source resources to create customized Integrated Library Systems, software, or other resources that are affordable for libraries' limited funding as well as effective, modern, and user-friendly (Ransom, 2009, p. 4). While open source resources are not "free," they may have reduced costs and a greater return on their investments. Members of the open source community are committed to providing materials free or at little cost to their users, just as libraries are nonprofit organizations that attempt only to recoup operating costs by charging small fees for copies, overdue fines, hold charges, etc.

Open source resources also provide "superior quality control" and freedom for the libraries that choose to utilize their programs, software, and materials with "full open and continuous access to the[ir own software] code" (Jones, 2009, p. 23). Librarians are able to edit and access their open source materials as well as share those materials with other institutions bypassing the middlemen of proprietary corporations with their efforts to steer the Integrated Library System market. This focus on freedom echoes the importance that libraries have always placed on accessibility for all library patrons—the freedom to access all information. Libraries and open standards have a "common cause" in that they share a commitment to "openness and accessibility" (Jaffe, 2007, p. 1).

In addition to the freedoms provided by both libraries and open source resources, the two also share the desire and necessity of community partnership. Where would libraries, especially public libraries, be without their communities, their users, and their funding? Libraries exist to connect people with resources. Open source initiatives and resources have the same investment with their community of users. In *The Cathedral and the Bazaar*, Eric Raymond

demonstrated how critical the open source community was to Linus Torvalds' success creating Linux. Torvalds asked users to assist in the creation and revision of the software he was designing, and they responded by participating (Raymond, 2000, p. 1). Libraries and open source resources rely on support to function.

Finally, perhaps there is also idealism in the creation of open source materials and libraries. Journalist and software chronicler Steven Levy said of software developers, "When you wrote a fine program, you were building a community, not churning out a product" (Bisson et. al., 2007, p. 5). Librarians are constantly working toward a world where all people have access to the information they need. Libraries themselves are a historic symbol of freedom—freedom for all people to access knowledge.

### **Ethical Responsibility**

Do these shared characteristics of libraries and open source demonstrate a compulsion on the role of librarians to participate in the "culture of sharing?" Librarians may feel ethically bound to use open source materials and to forego commercial software companies for the idealistic vision offered by open source materials (Jaffe, 2007, p. 3).

Drivers of the open source movement and library employees have exhibited similar philosophies in their efforts to make information, tools, and more available to a large number of people without incurring huge profits. Additionally, open source creators and users have shown camaraderie and passion for their software to be more important than how to maximize their earnings. Their desire to share materials and make materials available to a wide audience is evident through the number of open licenses currently offered.

This desire to make materials available to all peoples reveals an ethical aspiration on the parts of both libraries and open source communities. While "free" and "open" software might not express an identical sentiment, they are both alternatives to proprietary software and include a "philosophy, an understanding that software is an important building block in the information society and that the control of this infrastructure needs to remain accessible to all" (Klang, 2005, p. 3). The importance of participation in the creation of open source materials must not be underestimated because, according to Rousseau, "Members of such a society are free only to the extent that they participate in the creation of society" (Klang, 2005, p. 8). Librarians follow an ethical determination, advocated by Ranganathan's 2<sup>nd</sup> Law of Library Science that every reader, every individual in the community has a right to the information the library can provide (Cloonan, 2005).

The Open-ILS.org website, which offers the Evergreen Integrated Library System, describes the philosophical link between the two communities: "The

open source community is a natural ally of the library community. Both try to enrich their members through sharing and disseminating knowledge, and both are open to everyone, private or public, commercial or non-commercial” (Jaffe, 2007, p. 5). Both libraries and open source resources are known for breaking down barriers to information accessibility (Jaffe, 2007, p.5).

## **The Ripple Effect**

Libraries can and should be leaders in the technology movement by being both users and providers of new and effective technology. Libraries can use open source software for their Integrated Library Systems or online public access catalogs as one avenue to stay on top of emerging technology. Librarian and open source advocate Carl Grant says that “open source makes sense when a software product reaches commodity or infrastructure status...Most of us in the library automation business would argue that ILS systems have reached that status” (Grant, 2008, p. 227). Having a hand in the creation of the software may help library employees to better handle software management issues, questions, or problems that arise. This increased knowledge and familiarity with their software will allow library employees to provide assistance to other libraries and to utilize another’s skills. Library employees can spread their open source expertise from library to library.

Libraries should also be a venue where the population can use cutting edge software to access up-to-date materials. Libraries have historically offered commercially available software due both to grants like the Gates Foundation Library grants and the ubiquity of software like Microsoft Office (Bisson et. al., 2007, p. 35). Librarians may believe that patrons want Microsoft’s software and programs because that is what is commonly available for personal use. But library users may not be aware of the alternatives. Because of the digital divide, many library users—both in the United States and worldwide—do not have access to computers at home. Libraries can introduce patrons to open source software and other technology services that can help to further reduce the digital divide and promote the use of open source technologies, which would benefit people who can not afford to purchase expensive software.

Open source resources may also spur innovation due to its high visibility in which many people can see one another’s work, ideas, etc., and provide inspiration, critiques, feedback, or derivatives. Such a high degree of peer review creates a “more reliable product” because some of the “advantages of the open source path is that a much larger community of users and developers are involved than in using a proprietary system” (Grant, 2008, p. 228). Library employees can generate more choices and better products using open source systems—with their continuous improvements—and eventually develop a new customized program that best meets their particular library’s needs. The use of open source may also cultivate open source or software proficiency not only in

the library world, but also for the users who are affected by the exposure to libraries' software and programming.

## **Effects of Open Source**

The marriage of open source technologies and libraries will allow library employees to make more services and information available to users online, such as historical photo digitization or historic obituaries, which permit community members to provide additional facts, comments, or other information (Bisson et. al., 2007, p. 36). Online services “draw considerable Internet traffic to the library, a sign of the success the library is having in making the information available” (Bisson et. al., 2007, p. 38). Open source requires the efforts of a community of users, and libraries can be a part of that community. Libraries “have a long history of cooperation” and should always be making connections in their user populations as well as connections from library-to-library (Jaffe, 2007, p. 9). Open source materials may play a role in bringing it all together.

The next generation of library users will be looking for cutting-edge technologies, including open source technology, and will likely be more familiar with those technologies than the outdated ones that might be found in dusty libraries. This brand identification can attract and retain young patrons. If libraries fail to follow these trends, then they will become “increasingly marginal” (Jaffe, 2007, p. 1). Open source technologies can help libraries to keep the focus of their services on user-centered technologies. As Shifted Librarian blogger, Jenny Levine says “If we keep our content locked up on our own web sites and don't get it out there for people to use as they want to use it, then our content will fall by the wayside” (Casey, 2006, p. 41).

If libraries are committed to using open source technologies, along with or in place of their current resources, open source resources may eventually provide superior products than proprietary systems. This implementation of open source resources may help to repair the belief that libraries' “dependence on commercial interests is stifling the very innovation [they] need to remain relevant in the information age” (Jaffe, 2007, p. 13). With library personnel becoming more knowledgeable about open source Integrated Library Systems and online public access catalogs and sharing ideas with one another, the only conclusion is a consistently superior product. Using open source resources instead of “traditional, vendor-sourced library catalogue software” will allow librarians—those who are best trained to effectively “meet the community's needs”—to provide the best materials for their users (Trainor, 2009, p. 288).

Open source products are offering libraries that were previously unable to afford such products, the opportunity to provide high-quality software for their communities. Faster implementation of open source materials means that users will get the information they desire in a more timely manner and with better results—one of the critical arguments for libraries and open source initiatives

because a commitment to open source materials is “about an approach to customer needs with regard to costs and with regard to the future direction of the products [libraries] use” (Grant, 2007, p. 234). Conversion to open source will also force libraries to eliminate their reliance on commercial support and create on-site IT departments, which will in turn provide a higher level of support for both library employees and library users.

The potential ease of modifications, especially with a dedicated IT department and active peer community, will also provide libraries with the “opportunity to seek user feedback and change the service accordingly” (Trainor, 2009, p. 290). Libraries will no longer be stuck with ineffective materials that fail to meet their users’ needs. Instead, they will be armed with tools, which are “interoperable, usercentric, and collaborative” (Bisson et. al., 2007, p. 26). As long as library staff are trained and willing to work together with other libraries, the library’s open source materials—ILS, OPAC, etc.—can be updated and refined continuously.

## Open Ideology and Libraries

Among its policies, the American Library Association’s Bill of Rights states that libraries are charged with the following duties:

- *Books and other library resources should be provided for the interest, information, and enlightenment of **all** people of the community the library serves.*
- *Libraries should provide materials and information presenting **all** points of view on current and historical issues.*
- *Libraries should challenge censorship in the fulfillment of their responsibility to provide information and enlightenment (i.e., **all** materials should be accessible).*
- *Libraries should cooperate with **all** persons and groups concerned with resisting abridgment of free expression and free access to ideas.*
- *A person’s right to use a library should not be denied or abridged because of origin, age, background, or views (i.e., **all** people have a right to use the library) (American Library Association, 1996).*

The overwhelming message is that it is the mission of libraries to free *all* information, materials, etc., for *all* people. Just as the Free Software Foundation, founded by open source software pioneer Richard Stallman, acknowledged the following software freedoms:

- *The freedom to run the program, for any purpose (freedom 0).*
- *The freedom to study how the program works, and adapt it to your needs (freedom 1). Access to the source code is a precondition for this.*
- *The freedom to redistribute copies so you can help your neighbor (freedom 2).*

- *The freedom to improve the program, and release your improvements to the public, so that the whole community benefits (freedom 3). Access to the source code is a precondition for this* (Bisson et. al., 2007, p. 9).

Similar to the American Library Association, the Free Software Foundation's most significant characteristics are the supplement of freedoms. Open source advocates and library personnel both have a vision of freedom and accessibility for a successful and cooperative society.

Libraries could be deemed the original "open movement." They fought for the free dissemination of information for everyone, not just for wealthy individuals—those persons who could be said to have greater access to data and resources—or the privileged few. Libraries should serve as models for the other institutions as well as the general public to help pave the way not only for current technologies but also future movements. These efforts will keep savvy library users engaged and ensure their buy-in as well as guarantee that all individuals have access to the greatest number and highest quality of materials.

Libraries are in the business of "breaking down barriers to information access," and the "adoption of basic open source tools may be a key point of access" for user populations (Jaffe, 2007, pp. 5-8). Libraries, working together, can provide support and sustainability as well as knowledge to one another and future users by coordinating efforts and communication. Libraries and open source resources lend sustainability to one another. When libraries use open source materials, those materials can carry greater weight and receive more public exposure. Libraries have societal influence with the large numbers of patrons who use their services and because of their esteemed roles as well as the educational and community responsibilities they bear. Open source materials will be more sustainable because of the clout that libraries hold. Conversely, by utilizing open source software and resources, libraries are building frameworks for their futures. "Libraries are places where trained professionals help people to gain knowledge, make informed decisions, participate ethically in a democratic society, and pursue personal growth, in other words, obtaining and using 21st century skills" (Henry, 2009, p. 30).

Open licenses are one of the tools that support the ideology of both libraries and the open movement. Open licenses serve a similar role to libraries in the dissemination of software and other works to the greater public for use, which give individuals the freedom to become developers, users, modifiers, or publicizers of those works. Licenses, such as the GNU General Public License, attempt to perpetuate knowledge and information to which libraries have long been committed. The licenses provide a general structure for works to be distributed. Although not completely permissive, Richard Stallman's GNU General Public License is just one example of removing restrictions to make knowledge more accessible to many people (Wikipedia, 2009).

With their intertwined agendas, libraries and open source initiatives can work together to advance the freedoms which they advocate. The Darien Library in Connecticut illustrates the success that can arise from a philosophical and practical partnership with open source software. Using an open source content management system, Darien librarian John Blyberg created a social online public access catalog, SOPAC. Fellow Darien librarian Kate Sheehan describes the SOPAC sensation as changing the relationship of the library and its user population by bringing the “community into the library by inviting comments, ratings, and reviews. Our online presence has become an interactive space that runs on collaboration with our users. At Darien Library, we’re giving away more than code online. We’re giving up the one-way flow of information from library to patron and opening up our collection, our content, and ourselves for conversation” (Sheehan, 2009, p. 11). There is no question that this partnership is working for the Darien Library as they are one of the top-ranked libraries in the nation (Darien Library, n.d.).

The path of the open movement, open source software, open education, etc., will help libraries make a global impact and reach the larger “community” of the world’s populations. Those in critical need of resources, information, and knowledge will benefit from the natural partnership of libraries and open source initiatives. Both libraries and open source resources can benefit from their mutual commitment to freedoms and transparencies in society. Libraries need to keep current policies, current software, and current resources because “It’s really about free and forever, and libraries proved we’re the best at those things decades, maybe even centuries, ago. In fact, we’ve been so far out in front of these issues and ideas for so long that we’ve become invisible. We can change that. Libraries should lead, because they already do, and do it well” (Ottaviani, 2009, p. 20).

## Resources

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