

Library 2.0 Emerging as the New Generation Interactive Library Service

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This article introduces Web 1.0 and its transformation into Web 2.0. It describes impact of Web 2.0 on Library 2.0. It compares Library 1.0 with Library 2.0. It suggests that recent thinking describing the changing Web as "Web 2.0" will have substantial implications for libraries, and recognizes that while these implications are kept very close to the history and mission of libraries, they still necessitate a new paradigm for librarianship. The paper points out different characteristics of Library 2.0. It states related technologies towards implementation of Library 2.0 services. It indicates principles Web 2.0 to the practice of librarianship, especially addressing how Web 2.0 technologies such as synchronous messaging and streaming media, blogs, wikis, social networks, tagging, RSS feeds, and mashups might intimate changes in library service

Keywords: Library 1.0, Library 2.0, Mashups, Really Simple Syndication, Tagging, Web 1.0, Web 2.0

1. Introduction

It is observable that the information environment within which libraries find themselves changing is probably faster than ever before. These changes offer great opportunities for progressive libraries to reach out far beyond the boundaries of their four walls of the buildings and web sites, and to engage with an increasingly interactive literate body of information consumers. Similarly, the techniques and technologies that have enabled these new developments are also suitable for consumption within our libraries, to enhance the ways in which we make our own data work for ourselves and our visitors. At this juncture, Library 2.0 is a concept of a very different library service, motivated towards the needs and expectations of today's library users. In this vision, the library makes information available wherever, whenever and whatever the user requires it, and seeks to overcome barriers to use and reuse. The heart of Library 2.0 is user-centered environment. It is blending of Web 2.0 and library developing to Library 2.0. Web 2.0 is a newer mode of web based interactive service than the Web 1.0. Web 1.0 is a retronym which refers to an advanced state of the World Wide Web which was developed by Timothy Berners-Lee in 1989. It commonly means any website design style used before the advent of the Web 2.0 phenomenon.

Web 2.0 was first conceptualized and made popular by Tim O'Reilly and Dale Dougherty of O'Reilly Media in 2004. The term is now widely used and interpreted different ways, but Web 2.0, essentially, is not a web of textual publication, but a web of multi-sensory communication. It is a matrix of dialogues, not an accumulation of monologues. The technology of W 2.0 is utilized in library service that encourages constant and purposeful change, inviting user participation in the creation of both the physical and

the virtual services they want, supported by consistently evaluating services. The technological advancements in the past several years have enabled libraries to create new services that were not possible earlier, such as virtual reference, personalized Online Public Access Catalog interfaces, or downloadable media that library customers can use in the comfort of their own homes.

2. Web 1.0 vs. Web 2.0

Since the services of web 1.0 was distinctly established, the transformation of the same into Web 2.0 is not well comprehensible to many of us. There's still a huge amount of disagreement about just what Web 2.0 means, with some people decrying it as a meaningless marketing buzzword, and others accepting it as the new conventional wisdom. Tim O'Reilly has presented a comparative table on different aspects of transformations from Web 1.0 to Web 2.0 as follows (<http://oreilly.com/web2/archive/what-is-web-20.html>):

Web 1.0	Web 2.0
DoubleClick	Google AdSense
Ofoto	Flickr
Akamai	BitTorrent
MP3.com	Napster
Britannica Online	Wikipedia
Personal websites	Blogging
Evite	Upcoming.org and EVDB
Domain name speculation	Search engine optimization
Page views	Cost per click
Screen scraping	Web services
Publishing	Participation
Content management systems	Wikis
Directories (taxonomy)	Tagging ("folksonomy")
Stickiness	Syndication

3. Library 1.0 to Library 2.0

Providing a strict definition of Library 1.0 would always be counterproductive. However, Library 1.0 can be stated in a few ways.

Firstly, Library 1.0 is really whatever point we are at present. The crowds we are serving now are the crowds that we have served for a considerable time. The reality is that the number of users who have

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needs is outnumbering than those whose needs we are meeting. In other words, we are offering services that are not wanted by a majority of our population.

Secondly, Library 1.0 is the current activity cycle of planning and implementing. We often prepare and plan for years, but when those plans are put into place and executed we have a tendency to walk away without performing constant follow-up.

What we therefore need to remember is that Library 1.0 is a restrictive place, governed by strict hierarchies, rigid boundaries, and underpinned by change-avoidance. Perhaps this is sufficient in knowing what we want to move away from and where we want to go. Perhaps Library 2.0 will be able to assist us in this journey. Library 1.0 is striving on collections and superficial services through the online environment, whereas Library 2.0 will perform the full suite of library services through the online as well as electronic medium. Jack M. Maness has stated some examples about the move from Library 1.0 to Library 2.0 as the followings:

Library 1.0	Library 2.0.
Email reference / Q&A pages	: Chat reference
Text-based tutorials	: Streaming media tutorials with interactive databases
Email mailing lists, webmasters	: Blogs, wikis, RSS (Really Simple Syndication) feeds
Controlled classification schemes	: Tagging coupled with controlled schemes
OPAC (Online Public Access Catalogue)	: Personalized social network interface
Catalog of largely reliable print and electronic holdings	: Catalog of reliable and suspect holdings, web-pages, blogs, wikis, etc.

4. Library 2.0

The Library 2.0 movement has emerged as a response to the technologies and concepts in the Web 2.0 movement and has been involving the library world by storm. Web 2.0 analyses the advantages and disadvantages of Web 1.0 on the way of making it more user-driven, collaborative, participatory, and personalized. Library 2.0 thereafter takes the tools of Web 2.0 and moves them into a library setting that are user-centered, networking faculty, students, and librarians to create a vital and evolving organization designed to meet the needs of the current information culture. Library 2.0 is particularly relevant to institutions providing services to off-campus students. Many students taking courses remotely have full-time jobs and busy lives beside their academic courses. The Library 2.0 provides those students customizable, personalized, and collaborative library assistance in their success.

According to Paul Miller "Library 2.0" is a term coined by Michael Casey on his blog. Casey defines the term very broadly, arguing it applies beyond technological innovation and service. In addition to Casey, other blogging librarians have begun the varied discussions exploring what the Library 2.0 actually is,

and because of these dissimilar discussions with very wide parameters, there is some controversy over the definition and relative importance of the term.

Library 2.0 is essentially a loosely defined model for a modernized form of library service that reflects a transition within the library world in the way that the best services are delivered to users. With Library 2.0, library services are constantly updated and reevaluated to be best served to the library users. Library 2.0 also attempts to harness the library user in the design and implementation of library services by encouraging interaction and participation. Jack M. Maness has identified four essential elements for Library 2.0 to be properly understood:

- **User-centered:** Users participate in the creation of the content and services they view within the library's web-presence, OPAC, etc. The consumption and creation of content is dynamic, and thus the roles of librarian and user are not always clear.
- **Multi-media Based** Both the collections and services of Library 2.0 contain video and audio components. While this is not often cited as a function of Library 2.0, it is here suggested that it should be.
- **Socially rich:** The library's web-presence includes users' presences. There are both synchronous (e.g. IM or Instant Messaging) and asynchronous (e.g. wikis) ways for users to communicate with one another and with librarians.
- **Community Service:** This is perhaps the single most important aspect of Library 2.0. It rests on the foundation of libraries as a community service, but understands that as communities change, libraries must not only change with them, and they must allow users to change the library. It seeks to continually change its services, to find new ways to allow communities, not just individuals to seek, find, and utilize information.

Library 2.0 is a systematic concept of user-centered virtual community. It is socially rich, often egalitarian electronic space. While Librarian 2.0 act as a facilitator and provide support, he or she is not necessarily primarily responsible for the creation of the content. Here, users interact with and create resources with one another and with librarians. In some ways, it is creation of virtual reality for libraries.

4.1 Characteristics of Library 2.0

Many characteristics would be considered to describe a Library 2.0. The innovators around the world consequently continue to demonstrate and attribute the aspects as possible and applicable to Library 2.0. To this point of view of discussion, Paul Miller enunciated the following characteristics.

4.2 Remixing Library Services

Fundamental to the changes, it is anticipated for the libraries as a shift from the delivery of a library service just within the library building, or simply from a library's own web site. Library 2.0 continues to offer services to those who come to library, as well as extends its services to reach beyond the boundaries of the library space, and pushes services out to people in the places where they are already interacting. In this atmosphere, new technologies and new attitudes make it eminently feasible to break the OPAC down into a set of functional components, and to make each of those components available for inclusion in almost any page on the web, whether library-focused or not. The OPAC itself is highly enriched by this approach, and the services formerly available only via the OPAC become far more widely available, and consequently far more valuable.

Liberating library functions and data from hitherto closed systems enables users to use their library content and services in other contexts. For example, catalogue searching or loans information should be available to a student within their Course Management System or Virtual Learning Environment. Information on fines should be available within a financial application and perhaps both of these should be visible from an institutional portal. It is not only data reflecting an information consumer's interactions with the library that should be made available, however. In a different context, it is also important to ensure that information about the resources available from the library is disseminated as widely as possible, and made available in a manner that enables integration with other applications beyond the library's control.

One of the most frequently cited places in which such integration might usefully occur is, of course, Amazon. Since Jon Udell's useful LibraryLookup tool was first released back in 2002, a wide range of scripts, plug-ins and toolbars have been produced to enable a user to check whether or not an item being viewed on Amazon is also available within their own library.

The majority of these tools require someone to have downloaded and installed them before they can be used, and they also tend to be limited to providing information about a single library. As such, they are perhaps best suited to use on computers within a library, where a system administrator can install them, and where users searching Amazon can be directed to copies of the books located within the building they are in.

4.3 Moving Library Boundaries

As library services become more visible in a range of contexts, the incentives to challenge certain aspects of the ways in which we traditionally operate grows. In many parts of the world today, an individual will

be a member of a single, local, library, probably associated with the local government area in which they happen to live. They may work close to other libraries, or they may live in an area in which there are other libraries within reach, but they will tend not to have access to the services offered by these libraries. The question is: does a model in which an increasingly mobile population is able to view but not use the services of libraries other than that offered by their home city, county, or equivalent make sense any more?

We are seeing some moves towards collaborative access agreements and even discussions about national entitlement, but at what point will this trickle become the flood that makes the traveler or commuter routinely consider using a library in a strange town in the same way that they might today seek out a Starbucks for coffee or Wi-Fi?

Moreover, should a library that is unable to fulfill a request for an item immediately (either because the item is on loan, or because it will have to be borrowed from another library first) inform the potential borrower that the item may well be available more quickly from a third party source such as Amazon? This would, perhaps, allow them to make an informed decision as to whether or not the cost of buying via Amazon is preferable to waiting for the library to obtain a book for lending.

4.4 Information Easily Discoverable

As well as exposing basic information about the institution and its services, the open library should seek to enable discovery, locating, requesting, delivery and use of the resources in its care. Physical library holdings, for example, might usefully become far more visible than they are now. OCLC has made important progress in this area, and their OpenWorldCat13 initiative allows searchers to find books held by participating libraries in popular search engines such as Google and Yahoo! How much further might we go, though, in enabling the discovery of our holdings, and in allowing anyone wanting access to them to receive a copy of the desired item, whether they are a member of that library or not?

4.5 Libraries Seek Participation

Library 2.0 facilitates and encourages a culture of participation, drawing upon the perspectives and contributions of library staff, technology partners and the wider community of users. Blogs, wikis and RSS (Really Simple Syndication) are often held up as exemplary manifestations of Web 2.0. A reader of a blog or a wiki is provided with tools to add a comment or even, in the case of the wiki, to edit the content, as an authorized member /user. This is what we call the Read/Write web.

5. Library 2.0 Technologies

While these conceptual tenets of Library 2.0 might be rather dependable, envisioning the technological specifics of the next generation of electronic library services is at once both fraught with inevitable error and absolutely necessary. The details of how the applications so common to Web 2.0 will continue to evolve, and how libraries might utilize and leverage them for their patrons, are inherently hidden—they are wholly about innovation. But the conceptual underpinning of a library's web-presence and how it must evolve into a multi-media presence that allows users to be present as well, both with the library or librarian and with one another, are clearly in need of development. The following prognostications are, then, more speculative than predictive. They are meant to conceptually explore and provide context to the relationship between the evolving Web and the evolving library, as outlined above, as a means to facilitate innovation and experimentation in library electronic services, and this list is by no means comprehensive.

6. Synchronous Messaging

This technology has already been embraced quite rapidly by the library community. More widely known as Instant Messaging (IM), it allows real-time text communication between individuals. Libraries have begun employing it to provide “chat reference” services, where patrons can synchronously communicate with librarians much as they would in a face-to-face reference context.

Many might consider IM a Web 1.0 technology, as its inception predates the technology market crash and it often requires the downloading of software, whereas most 2.0 applications are wholly web-based. It is here considered 2.0 as it is consistent with the tenets of Library 2.0: it allows a user presence within the library web-presence; it allows collaboration between patrons and librarians; and it allows a more dynamic experience than the fundamentally static, created-then-consume nature of 1.0 services. It is also considered 2.0 as it is becoming a more web-based application, and the software used by chat reference services is usually much more robust than the simplistic IM applications that are so popular (they often allow co-browsing, file-sharing, screen-capturing, and data sharing and mining of previous transcripts).

The future of these technologies in the library arena is interesting. By providing this interactive Web service, libraries have positioned themselves to adopt its successors quickly and expertly. Already the text-based nature of IM applications is changing into a more multi-media experience, where audio and video messaging is becoming more common. Even as they provide more multi-sensory experiences, they will become ubiquitous, available throughout the library's web-presence. Already libraries are placing links to their chat reference services within resources themselves, such as at the article level in

subscription databases. Much as a patron in a physical library is almost by definition never far from a librarian, chat reference becoming more pervasive could provide a similar circumstance in the world of the Web. The time is perhaps not far away when chat reference can take place within the framework of the library network, providing a more seamless experience.

Further, it is conceivable that should a user allow such a service, these chat reference services can be prompted when certain user seeking behaviors are detected. For instance, as a user browses through certain resources, repeating steps and moving cyclically through a classification scheme or series of resources, a synchronous messaging service could be prompted to offer assistance. The physical counterpart to this is of course a patron wandering in book stacks, and a librarian, sensing their aimlessness, offering help. Library 2.0 will know when users are lost, and will offer immediate, real-time assistance. Libraries may do well to continue adopting this technology as it evolves, as it allows reference services in an online media to closely approximate the more traditional services of the physical library. The time will almost certainly soon come when Web reference is nearly indistinguishable from face-to-face reference; librarians and patrons will see and hear each other, and will share screens and files. In addition, the transcripts these sessions already provide will serve library science in ways that face-to-face reference never did. For the first time in the history of libraries, there will be a continuously collected transcription of the reference transaction, always awaiting evaluation, analysis, cataloging, and retrieval for future reference.

7. Streaming Media

The streaming of video and audio media is another application that many might consider Web 1.0, as it also predates Web 2.0 thinking and was widely employed before many of the following technologies had even been invented. But for reasons similar to synchronous messaging, it is here considered 2.0. Certainly, for libraries to begin maximizing streaming media's usefulness for their patrons, 2.0 thinking will be necessary.

As mentioned, library instruction delivered online has begun incorporating more interactive, media-rich facets. The static, text-based explanation coupled with a handout to be downloaded is being supplanted by more experiential tutorials. The Association of College and Research Libraries' Instruction Section provides a database of tutorials, many of which are Web 2.0 in their nature, called Peer Reviewed Instructional Materials Online (PRIMO).

Many of these tutorials use Flash programming, screen-cast software, or streaming audio or video, and couple the media presentation with interactive quizzing; users respond to questions and the system responds in kind. These tutorials are perhaps the first of library services to migrate into more the more

socially rich Web 2.0. Most, if not all, however, do not generally provide a means by which users can interact with one another, nor directly with librarians. This fact marks a possible potential for the continued development of these tutorials. These could take the form of multi-media chat rooms or wikis, and users will interact with one another and the learning object at hand, much as they would in a classroom or instruction lab.

Another implication of streaming media for libraries is more along the lines of collections instead of services. As media is created, libraries will inevitably be the institutions responsible for archiving and providing access to them. It will not be enough to simply create "hard-copies" of these objects and allow users to access them within the confines of the library's physical space, however. Media created by the Web on the Web belongs on the Web, and libraries are already beginning to explore providing such through digital repository applications and digital asset management technologies. Yet these applications are generally separate from the library's catalog, and this fracture will need to be mended. Library 2.0 will show no distinction between or among formats and the points at which they may be accessed.

8. Blogs and Wikis

Blogs and wikis are fundamentally 2.0, and their global proliferation has enormous implications for libraries. Blogs may indeed be an even greater milestone in the history of publishing than web-pages. They enable the rapid production and consumption of Web-based publications. In some ways, the copying of printed material is to web-pages as the printing press is to blogs. Blogs are HTML for the masses.

The most obvious implication of blogs for libraries is that they are another form of publication and need to be treated as such. They lack editorial governance and the security this provides, but many are nonetheless integral productions in a body of knowledge, and the absence of them in a library collection could soon become unthinkable. This will, of course, greatly complicate collection development processes, and the librarian will need to exercise a great deal of expertise and fastidiousness when adding a blog to a collection (or, perhaps, an automated blog-collection development system). Or, perhaps the very notions of "reliable" and "authoritative", so important to collection development, will need to be rethought in the wake of this innovation.

Wikis are essentially open web-pages, where anyone registered with the wiki can publish to it, amend it, and change it. Much as blogs, they are not of the same reliability as traditional resources, as the frequent discussions of Wikipedia (an online encyclopedia where any registered user can write, amend or otherwise edit articles) in the library world well note; but this of course does not eliminate their value, it merely changes librarianship, complicates collection development and information literacy instruction.

The lack of peer review and editorship is a challenge to librarians, not in that users should avoid wikis, but only in that they should understand and be critical in depending on them. Wikis as items in a collection, and the associated instruction of users in the evaluation of them, are almost certainly part of the future of libraries.

In addition, a library wiki as a service can enable social interaction among librarians and patrons, essentially moving the study group room online. As users share information and ask questions, answer questions, and librarians do the same within a wiki, a record of these transactions is archived perhaps for perpetuity. And these transcripts are in turn resources for the library to provide as reference. Furthermore, wikis and blogs will almost certainly evolve into a more multi-media environment as well, where both synchronous and asynchronous audio and video collaborations will take place. Blogs are new forms of publication, and wikis are new forms of group study rooms.

Ultimately, blogs and wikis are relatively quick solutions for moving library collections and services into Web 2.0. This beginning of Library 2.0 makes collections and services more interactive and user-centered, enable information consumers to contact information producers and become co-producers themselves. It could be that Library 2.0 blurs the line between librarian and patron, creator and consumer, authority and novice. The potential for this dramatic change is very real and immediate, a fact that places an incredible amount of importance on information literacy. In a world where no information is inherently authoritative and valid, the critical thinking skills of information literacy are paramount to all other forms of learning.

9. Social Networks

Social networks are perhaps the most promising and embracing technology discussed here. They enable messaging, blogging, streaming media, and tagging, discussed later. MySpace, FaceBook, Del.icio.us, Frappr, and Flickr are networks that have enjoyed massive popularity in Web 2.0. While MySpace and FaceBook enable users to share themselves with one another (detailed profiles of users' lives and personalities), Del.icio.us enables users to share Web resources and Flickr enables the sharing of pictures. Frappr is a bit of a blended network, using maps, chat rooms, and pictures to connect individuals.

Other social networks are noteworthy as well. LibraryThing enables users to catalog their books and view what other users share those books. The implications of this site on how librarians recommend reading to users are apparent. LibraryThing enables users, thousands of them potentially, to recommend books to one another simply by viewing one another's collections. It also enables them to communicate asynchronously, blog, and "tag" their books.

It does not require much imagination to begin seeing a library as a social network itself. In fact, much of libraries' role throughout history has been as a communal gathering place, one of shared identity, com-

munication, and action. Social networking could enable librarians and patrons not only to interact, but to share and change resources dynamically in an electronic medium. Users can create accounts with the library network, see what other users have in common to their information needs, recommend resources to one another, and the network recommends resources to users, based on similar profiles, demographics, previously-accessed sources, and a host of data that users provide. And, of course, these networks would enable users to choose what is public and what is not, a notion that could help circumvent the privacy issues Library 2.0 raises and which Litwin (2006) well enumerates.

Of all the social aspects of Web 2.0, it could be that the social network and its successors most greatly mirror that of the traditional library. Social networks, in some sense, are Library 2.0. The face of the library's web-presence in the future may look very much like a social network interface.

10. Tagging

Tagging essentially enables users to create subject headings for the object at hand. As Shanhi (2006) describes, tagging is essentially Web 2.0 because it allows users to add and change not only content (data), but content describing content (metadata). In Flickr, users tag pictures. In LibraryThing, they tag books. In Library 2.0, users could tag the library's collection and thereby participate in the cataloging process.

Tagging simply makes lateral searching easier. The often-cited example of the U.S. Library of Congress's Subject Heading "cookery," which no English speaker would use when referring to "cookbooks," illustrates the problem of standardized classification. Tagging would turn the useless "cookery" to the useful "cookbooks" instantaneously, and lateral searching would be greatly facilitated.

Of course, tags and standardized subjects are not mutually exclusive. The catalog of Library 2.0 would enable users to follow both standardized and user-tagged subjects; whichever makes most sense to them. In turn, they can add tags to resources. The user responds to the system, the system to the user. This tagged catalog is an open catalog, a customized, user-centered catalog. It is library science at its best.

11. RSS Feeds

RSS feeds and other related technologies provide users a way to syndicate and republish content on the Web. Users republish content from other sites or blogs on their sites or blogs, aggregate content on other sites in a single place, and ostensibly distill the Web for their personal use. Such syndication of content

is another Web 2.0 application that is already having an impact on libraries, and could continue to do so in remarkable ways.

Already libraries are creating RSS feeds for users to subscribe , including updates on new items in a collection, new services, and new content in subscription databases. They are also republishing content on their sites. Varnum (2006) provides a blog that details how libraries use RSS feeds for patron use. But libraries have yet to explore ways of using RSS more pervasively. A new product from a company called BlogBridge, BlogBridge: Library (BBL), "is a piece of software that you can install on your own server, inside your firewall. It's not the content of the library (the books), it's the software to organize the library (the building)." While BBL's potential for libraries has yet to be determine due to its being brand new, it is conceivable that this syndication will replace browsing and searching through library websites for content. BBL and similar RSS aggregator applications, installed in a library's system and coupled with the social network of the library, will enable users to have a single, customized, personal library page that syndicates all the library content of interest to them and their research, eliminating irrelevant information. And users will, of course, control that page and that content.

12. Mashups

Mashups are perhaps the single conceptual underpinning to all the technologies discussed in this article. They are ostensibly hybrid applications, where two or more technologies or services are conflated into a completely new, novel service. Retrivr, for example, conflates Flickr's image database and an experimental information architecture algorithm to enable users to search images not by metadata, but by the data itself. Users search for images by sketching images. In some ways, many of the technologies discussed above are mashups in their very nature. Another example is WikiBios, a site where users create online biographies of one another, essentially blending blogs with social networks.

Library 2.0 is a mashup. It is a hybrid of blogs, wikis, streaming media, content aggregators, instant messaging, and social networks. Library 2.0 remembers a user when they log in. It allows the user to edit OPAC data and metadata, saves the user's tags, IM conversations with librarians, wiki entries with other users (and catalogs all of these for others to use), and the user is able to make all or part of their profile public; users can see what other users have similar items checked-out, borrow and lend tags, and a giant user-driven catalog is created and mashed with the traditional catalog.

Library 2.0 is completely user-centered and user-driven. It is a mashup of traditional library services and innovative Web 2.0 services. It is a library for the 21st century, rich in content, interactivity, and social activity.

13. Debate Surrounding Library 2.0

Library 2.0 has been a source of debate in the blogosphere. Some librarian bloggers have argued that these key principles are not new and have been part of the service philosophies of many library reformers since the 19th century. Others are calling for more concrete examples of how libraries can get to Library 2.0. Walt Crawford, for example, argues that Library 2.0 comprises a combination of tools and attitudes which are excellent ideas and not new to librarianship, a few business- and tool-focused attitudes which will not serve all users and user communities, and incorrectly places libraries as the appropriate source for all users to gather all information.

Proponents of Library 2.0, such as Stephen Abram, Michael Stephens, Paul Miller and others, have spoken to these criticisms, arguing that while individual pieces of Library 2.0 may not be entirely new, the convergence of these service goals and ideas with many new Web 2.0 technologies has led to a new generation of library service. (http://en.wikipedia.org/wiki/Library_2.0).

14. Conclusion

Library 2.0 is about encouraging and enabling a library's community of users to participate, contributing their own views on resources they have used and new ones to which they might wish access. With Library 2.0, a library will continue to develop and deploy the rich descriptive standards of the domain, whilst embracing more participative approaches that encourage interaction with and the formation of communities of interest. "Web 2.0 is an attitude, not a technology". The same is true of Library 2.0. Technology merely offers us a means by which we can realize a set of goals shared across the library sector.

Information services from others do not threaten responsive and adaptable libraries. They validate much that we have always done, and bring information to a far wider audience than we have managed. We can learn from much that they have achieved, and combine this knowledge with our unique skills and assets in order to deliver a truly compelling set of services.

Across all aspects of current library services there are questions to be asked. Does it make sense for data on holdings aggregated from across a number of libraries to be difficult for information consumers to locate or interact with? Do current notions of belonging to a single library or library authority make sense in an increasingly mobile world? Do current restrictions on access to electronic resources licensed by the library make sense, or should we push harder against the providers of those resources? Does the current model for procuring a complete library system offer value to the library or to its users? Does Open Source offer a better development model - even for incumbent software vendors?

The library sector needs to challenge the current presumptions about libraries, sweeping aside those that no longer make sense and determining if and how it makes sense to work around those that remain. That doesn't mean we will have to revise all aspects of library services, but we must now be prepared, collectively, to adapt to the changes in expectation and usage of information resources and technological changes sweeping our environment.

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