Library 2.0: Moving Towards New Generation

Dhiru Barman   **Ridip Jyoti Kalita**

This article explains a detailed discussion of "Library 2.0". It also suggests that recent thinking describing the changing Web as "Web 2.0" will have substantial implications for libraries in the form of "Library 2.0". This paper works to establish a theoretical foundation of "Library 2.0" in libraries.

Keywords: Library 2.0, Web 2.0, Wiki, Blog

1.   Introduction

The information environment within which libraries find themselves is changing, probably faster than ever before. These changes offer great opportunities for progressive libraries to reach out far beyond the boundaries of their buildings and web sites, and to engage with an increasingly literate body of information consumers. Similarly, the new techniques and technologies are suitable for deployment within our libraries, to enhance the ways in which we make our own data work for ourselves and our visitors. Recently, librarians have struggled to understand their relationship to a new breed of Web services that, like libraries, connect users with the information they need. While a few outside observers have proclaimed the death of libraries as a result of this new competition, it is clear that libraries continue to offer unique and valuable services to their communities. These services, known as Web 2.0, do have effects on library services. They offer new service models, methods, and technologies that can be adapted to improve library services. Furthermore, because of widespread use of these services, there are cultural changes affecting library users' information seeking behaviors, communication styles and expectations. The term Library 2.0 has been introduced into the professional language of librarianship as a way to discuss these changes. The concept of Library 2.0 is still under constant discussion in the biblioblogosphere (world of librarian blogging).

2.   Back to the Roots

The term "Web 2.0" was first introduced by Tim O'Reilly and Dale Dougherty of O'Reilly Media in 2004 to describe the trends and business models that survived the technology sector market crash of the 1990s. The Web 2.0 is commonly associated with web applications which facilitate interactive information sharing, interoperability, user- centered design and collaboration on the World Wide Web. Examples of Web 2.0 include web-based communities, hosted services, web applications, social- networking sites, video- sharing sites, wikis, blogs, Mashups, Podcasts, Folksonomies and tagging. A Web 2.0 site

allows its users to interact with other users or to change website content, in contrast to non-interactive websites where users are limited to the passive viewing of information that is provided to them. The term Web 2.0 was created to describe the differences between second and first generation web applications. Web 2.0 is the label attached to the new capabilities of the next generation World Wide Web or Web 1.0. According to Berners-Lee, the Web 1.0 represents the first implementation of the web, could be considered the "read-only web". In other words, the early web allowed us to search for information and read it. For this reason, Ian Davis provided a useful conclusion regarding the relation between Web 1.0 and Web 2.0:

"Web 1.0 took people to information; Web 2.0 will take information to the people".

3.   Introducing Library 2.0

Library 2.0 is a concept of a very different library service, geared towards the needs and expectations of today's library users. In this vision, the library makes information available wherever and whenever the user requires it, and seeks to ensure that barriers to use and reuse are removed. Library 2.0 is mainly around the concept of how to use the web 2.0 opportunities in a library environment. Library 2.0 is one of the major breakthrough that seen in recent time in web technology and in global library perspective. Library 2.0 is a new way of providing library service through new internet technologies, with emphasis on "user-centered" change and interaction. Library 2.0 is a loosely defined model for a modernized form of library service that reflects a transition within the library world in the way that services are delivered to users.

The term "Library 2.0" was coined by Michael Casey on his blog LibraryCrunch as a direct spin-off of the terms "Business 2.0" and "Web 2.0". Casey suggested that libraries, especially public libraries, are at a crossroads where many of the elements of Web 2.0 have applicable value within the library community, both in technology-driven services and in non-technology based services. In particular, he described the need for libraries to adopt a strategy for constant change while promoting a participatory role for library users. Michael Casey defined Library 2.0 as

"Library 2.0 is, perhaps above all else, the idea of constant change. Not only constant library change, but the recognition that our communities are constantly changing and that our services to them must change proportionately".

4.   Basic Characteristics

Library 2.0 is a model for 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 consis-

tently evaluating services. It also attempts to reach new users and better serve current ones through improved customer-driven offerings. Library 2.0 can be characterized by the following:

4.1   It is 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.

4.2   It provides a multi-media Experience

Both the collections and services of Library 2.0 contain video and audio components.

4.3   It is socially Rich

The library's web-presence includes users' presences. There are both synchronous (e.g. Instant Messaging) and asynchronous (e.g. wikis) ways for users to communicate with one another and with librarians.

4.4   It is communally Innovative

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.

5.   Library 2.0 and Web 2.0: How they are Associated

The term "Library 2.0" can be broken down into two parts, "Library" and "Web 2.0". As the 2.0 comes directly from the term Web 2.0, It is clear that the term roughly describes the relationship between Web 2.0 and libraries i.e.   Web 2.0 + Library = Library 2.0

Library 2.0 cannot be defined solely by characteristics that are characteristics of either Libraries or Web 2.0 if the combination of the characteristics does not create a unique concept. Library 2.0 must describe a unique service model that occurs when libraries take Web 2.0services into account. Library 2.0 describes a subset of library services designed to meet user needs caused by the direct and peripheral effects of Web 2.0. Thus Library 2.0 only describes services responding to the user needs brought on by the effects of Web 2.0 services. Library 2.0 is completely user-centered and user-driven. It is innovative of Web 2.0 services. It is a library of the 21st century, rich in content, interactivity and social activity.

As Library 2.0 services are designed to meet user needs, therefore the services at public, academic, school and special libraries will all have unique user needs because of the different populations they serve. As an example, Michael C. Habib in his paper "Toward Academic Library 2.0: Development and Application of a Library 2.0 Methodology" described the application of Web 2.0 principles in Academic library as follows:

Table 1: Library 2.0 Brainstorming Chart

Web 2.0 Concepts (X)	Effects/Questions	Library Services (Y)
Read/Write Web	What are the direct effects of concept X on service Y?	Cataloging
The Web as Platform	In what way might concept X be directly implemented to improve service Y?	Reference
The Long Tail	In what way might concept X be directly implemented to create a new library service?	Collection Development
Hamessing Collective Intelligence	What ways might Web 2.0 services employing concept X be used to improve service Y?	Library Instruction
Network Effects	What ways might Web 2.0 services employing concept X be used to create a new library service?	Marketing and Outreach
Core Datasets	What are the peripheral effects of concept X on service Y?	Children's Services
Lightweight Programming Models	What are the effects of concept X on users of Y library service?	Reader's Advisory
	Are users of service Y familiar with concept X?	Young Adult Services
	Are users of service Y familiar with Web 2.0 services implementing concept X?	???????

6.   Library 2.0: What It Brings With Itself (facilities)

Library 2.0 is not about searching, but finding; not about access, but sharing. Library 2.0 recognizes that human beings do not seek and utilize information as individuals, but as communities. Some examples of the move from Library 1.0 to Library 2.0 include:

Table 2: Move from Library 1.0 to Library 2.0

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 feeds
Controlled classification schemes	Tagging coupled with controlled schemes
OPAC	Personalized social network interface/ Web OPAC
Catalog of largely reliable print and electronic holdings	Catalog of reliable and suspect holdings, web-pages, blogs, wikis, etc.

7.   Library 2.0 Examples

Many examples that might be considered aspects of a Library 2.0 approach exist, and innovators around the world continue to demonstrate that which might be possible.

7.1   Remixing Library Services

The delivery of library service within the library building, or simply from a library's own web site is shifted to offer services to those who come to us, to reach the beyond the boundaries of the library space or to people where they are already interacting. For example, new technologies and new attitudes make it eminently feasible to break the OPAC down into a set of functional components, to make each of those components available for inclusion in almost any page on the web, whether library focused or not. As a result, the OPAC become far more widely available and consequently far more valuable.
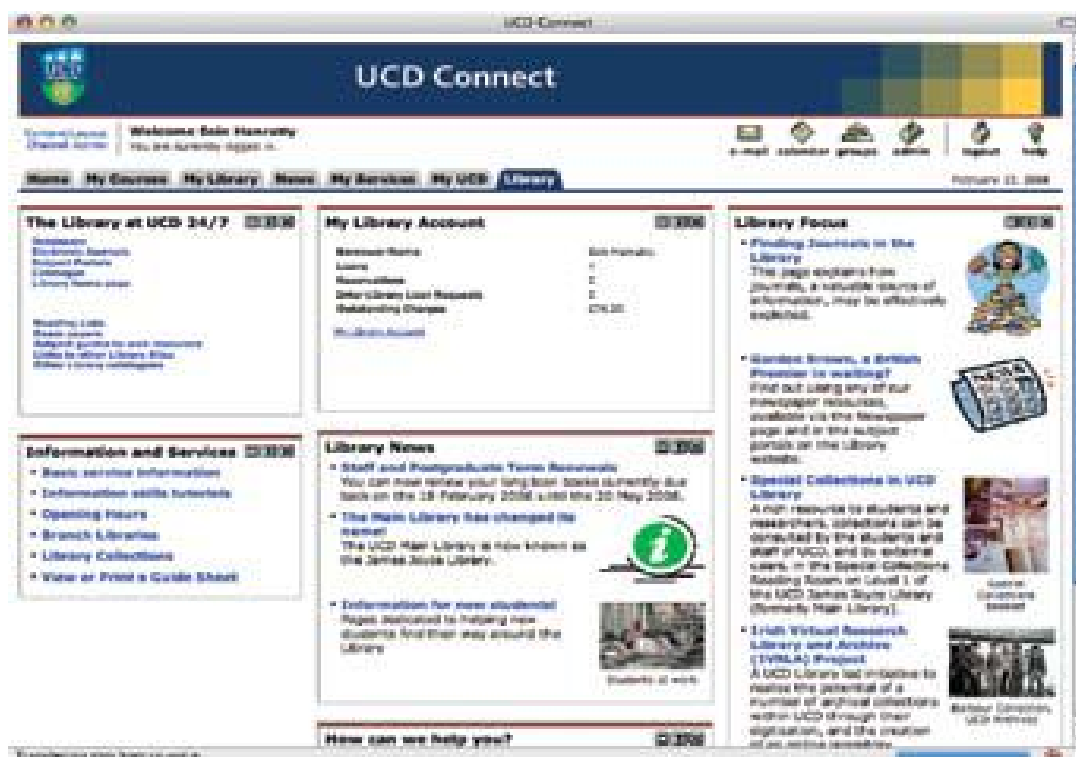

Figure. 1 Library account information visible in the institutional portal at University College Dublin (Source: Miller: 2006)

7.2 Information Easily Discoverable

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. For example, physical library holdings might usefully become far more visible than they are now. OCLC has made important progress in this area, and their OpenWorldCat initiative allows searchers to find books held by participating libraries in popular search engines such as Google and Yahoo.

Figure 1: OpenWorldCat exposes information about the holdings of libraries making it visible to search engines such as Google. (Source: Miller: 2006)

7.3 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. Blogs, wikis and RSS 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. This is what we call the Read/ Write web. 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.

Figure 3: Vielmetti, a user of Ann Arbor's District Library, took information from
the library catalogue about new books to automatically generate images like http://
vielmetti.typepad.com/superpatron/2005/12/visual_wall_of_html

8. Conclusion

Library 2.0 can be a scary term for librarians who aren't really involved into technology. But it is not primarily about machines and software; it is about using the best tools and ideas to provide the best possible service to the users. It is an exciting concept and one which can create a conversation that creates the next generation of library websites, databases, OPACs, intranets and portals in away that is allows the end user to survive. Library 2.0 is a conversation about some of the human aspects of this emerging environment. The beauty of Web 2.0 and Library 2.0 is the level of integration and interoperability that is designed into the interface through one's portal or intranet. To take advantage of the concepts inherent in Library 2.0, it is imperative not to shy away from adding advanced functionality and features directly into the content. This will provide the context and workflow-oriented features that users will demand or are demanding already.

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About Authors

Miss Dhiru Barman, Librarian, Modern English School, Guwahati.
Email ID: dhirubarman@gmail.com

Mr. Ridip Jyoti Kalita, Librarian, Asian Institute of Management and Technology (AIMT), Guwahati
E-mail: ridipjyotikalita@gmail.com