Collaboration Tools and Its Relevance in Library Services

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Abstract

The development of technologies, particularly internet technologies has changed the way of the individuals to obtain information. The emerging of new programming languages for the web has promised new transformation for more dynamic web applications. A collaboration tools will give its users the free choice to collaborate with each other in various form in a virtual community. Easily accessible and user-friendly collaboration tools will allow exploring, sharing, engaging, and connecting with people and content in meaningful ways that help them to learn and share knowledge. The purpose of this is to study the concept and impact of collaboration tools use and perception among the academic librarians especially to the university libraries of North Eastern region based on their personality characteristics, computer skill, Internet facilities and usage purposes.

Keywords: Collaboration Tools, Web 2.0, Library 2.0, University Library of NE Region, Wikis, Facebook, LIS Links, Blog, RSS Feeds, Mashups

1. Introduction

With the advent of technology, especially in this internet era, libraries where the distance between the information and the user slashed down to only a claps and this will open the opportunities for better participation of the information seekers in acquisition, organization and share of information. The technological development mostly on the lap of computer and telecommunication, libraries instigated to dig the computer enabled tools to change the system of the services which they offered. In this era, the Web offers a wide range of handy tools to help the users to collaborate and communicate with other libraries as well as organised data/information and keep records, distribute and retrieved or shared. Collaboration is relevant for Academic libraries to remain relevant to 21st century changes to higher education, where virtual teaming and the use of the Web is being encouraged and pursued by respective administrations.

2. Collaboration Tools

The word collaborationhas become synonymous with effective scholarship and research. In Web 2.0 environment Collaboration is "a recursive process where two or more people...work together towards an intersection of common goals...by sharing knowledge, learning, and building consensus." Against the backdrop of an increasingly shrinking world, "two or more people" may be separated by mere walls or vast oceans. In academia, "common goals" may be the pursuit or creation of new knowledge in a research setting or a team project in a classroom.
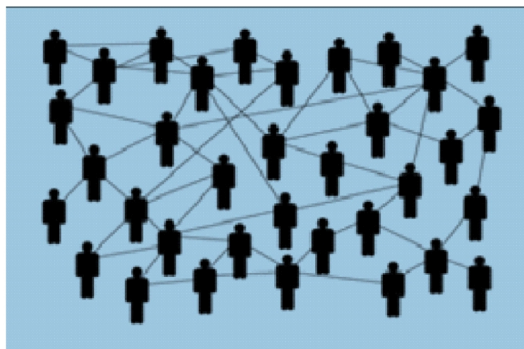
Figure 1: Collaboration

Collaboration tools can be hardware devices or software programs that help users communicate to accomplish a common purpose. For the purposes of this paper, collaboration tools have been definedas those that enable remote collaboration. In many cases, a collaboration tool is synonymous with a communication medium or device. With the rapid improvement of new tools and the almost as speedy demise of tools that don't find a critical mass of users, identifying characteristics of effective tools may help uncover tools that are already being used within disciplines. In addition, identifying features of effective tools may guide developers in creating next-generation tools.

The term "Collaboration Tool" refers to the second generation development and design through the web that aims to facilitate communication and to secure information sharing, inter-operability and user centred design. Collaboration Tool concepts have led to the development and evolution of web-based communities, hosted services, and applications, such as social-networking sites, video-sharing sites, Wikis, blogs, and folksonomies (King & Brown, 2009; Wikipedia, 2010c).

In the book, The Lawyer's Guide to Collaboration Tools and Technologies, Dennis Kennedy and Tom Mighell point out that choosing the right collaboration tool often depends on the type of collaboration required, the context for the collaboration, and the timing. According to them, collaboration tools have either a new system for implement or to improve the existing system which is significantly better than the earlier system.

Over time, we learned that phone conversations may be more appropriate then chatclients, Webcams, Skype or e-mail. But, when phone conversations were not convenient, we relied on IM, Voice Messaging and GoogleDocs. We felt comfortable leaving messages and storing online documents, knowing that the other could get back to it when he/she came back from assisting a patron at the reference desk or checking back in after a meeting across campus.

According to Kennedy and Mighell, a good collaboration tool will make documents and data available to your users when and how they need it, and it will enable users to move documents and data from one device, location, or platform to another.

3. Characteristics of Collaboration Tools

Any tool that allows interaction on a shared resource has the potential to be a collaboration tool. An effective collaboration is the increase the likelihood that a tool can attract a critical mass of users. A natural interface with interactions based on existing communication norms is particularly valuable. Taking a cue from traditional face-to-face interaction, many collaboration tools have tried to emulate non-technology-mediated interactions. These have included sharing information like documents, images and video of participants, creating shared spaces or

rooms, and facilitating other elements believed to be important in establishing an appropriately correct environment for collaboration.

❖ The interface of the tool should be easy and spontaneous to navigate, perhaps emulating an existing tool or an aspect of the physical world. A user's ability to simply pick up, adapt to and use a tool considerably diminishes extensive training and supervision needs.

❖ Collaboration tools permits the building of virtual applications, drawing data and functionality from a number of different source.

❖ Video, audio or simple text etc. is the most important feature of a collaboration tool that facilitates communication and interaction between participants.

❖ The traditional web is one- sided with a flow of content form provider to viewers, it allows the user to actively participate online by means of blogging, sharing file or equivalent.

❖ With the development of Collaborative tools the users able to pick and choose from a set of inter-operating components in order to build something that meets for their needs.

❖ With the effective collaboration tools application users able to capture knowledge and deliver services to satisfy their needs. It is all about sharing: code, content, ideas etc.

4. Objectives

Though collaboration tool has been strongly applied in the field of online services, it has not been a widely applied in the field library community. Therefore an attempt has been made to study the different aspects of collaboration tools use in the library. The main objective of this paper is:

1. To understand the major concepts and technologies of collaboration tools.

2. To discuss the impact of collaboration tools on libraries.

3. To examine the characteristic features of the collaboration tools that used in the higher educational academic libraries.

4. Further an attempt has also made to study the university library website of NE India to study the real situation of the university libraries webpage in accommodating the features of collaboration tools.

5. Collaboration Tools Platforms vs Library

When a library needs its users to collaborate frequently, it may require a dedicated set of collaboration tools. Common types of collaboration tools include electronic conferencing tools and tools to help collaborators more easily, create and share information related to the importance. Electronic conferencing tools can include videoconferencing tools, audio conferencing tools, and tools for text conferencing. These tools can be used for online conferencing through the Internet, or they might be used over a telephone line or local network. Some of the collaboration tools platforms which can be used by library are given below-

5.1. Wikis

Wikis are typically powered by wiki software and are often created collaboratively, by multiple users. Wikis are easy-to-create, editable web pages that allow multiple individuals—if granted permission by the wiki owner—to edit the content. Wikis can enable and facilitate the collaborative creation of any kind of document presentation, text document,

spreadsheet, and others. Libraries and academic institutions have been using Wikis for group learning, for sharing knowledge, experiences and open source products, and also to provide subject guides (Frumkin, 2005; King & Porter, 2007; Payne, 2008). Afterall, wiki is one of the best tool where people can share ideas with one another, and librarians can use this to replicate the successes of other libraries.

5.2. Social Interaction (Facebook, LIS Links etc.)

Social interaction tools like Facebook and LinkedIn ask. LIS Links, video sharing site YouTube etc. have made a strong impact among internet users around the world. Facebook which is one of the very popular social networking sites now encourages people to connect with others. The main purpose of Facebook is to connect friends with friends on a regular basis which allowing people to interact, make friends, talk online and share resources. Like that Google Earth whereusers are encouraged to upload their own sites and pinpoint their location on the map. LIS Links which is the virtual community for LIS professionals. It provides customized services in the various sub-areas of LIS to the professionals through voluntary collaboration of its members.

5.3. Blog

All blogs — short for web logs — have a similar format where the newest posts appear first, but they can span the gamut of topics, styles and content. On the surface a blog looks much like any other website, but the creation of the content is very different. Blog platforms are interfaces that automate the coding of a Web page so the blog authors don't need to know how to code. Many blogging platforms — like Blogger, Tumblr and Wordpress — also offer free hosting for the blogs, making it pos-

sible for anyone with an Internet connection to post online without having to pay for server space or Web design. The first blogs were primarily a place for individuals to share thoughts online. As the medium grew, Library began using blogs as a way to share news or information.

5.4. RSS Feed

RSS is a family of XML file formats for web syndication used by news websites and weblogs. RSS (Really Simple Syndication) is lightweight XML format which is used for publishing frequently updated content such as blog entries, news headlines, and podcasts in a standardized format. Wusteman (2004) noted the important role of RSS in keeping users updated with the latest information. For example, the Library of University of Southampton provides news feed on RSS to inform students about activities and events held in the University. King and Brown noted the similarity in the functioning of RSS and e-mail and predicted the likelihood of increased use and popularity of RSS feeds in the future.

5.5. Instant Messaging

IM referred to as chat or text chat, is a versatile, accessible, and almost universally available tool that supports collaboration in multiple ways. Many chat/ IM client applications support audio chat, video chat, file transfer, and even desktop sharing in addition to simple text chat. Perhaps the greatest feature of IM is the number of people who use it and know how to use it. . Academic libraries use IM to provide virtual reference services, improve access of other services and provide the latest information to students (Stephens, 2006). Instant messaging also acts as an additional medium to facilitate interactions with patrons.

5.6.   Podcast

The word podcast comes from the amalgamation of the words iPod and broadcast. However, the "pod" is a bit of a misnomer as podcasts can also be played on computers and mp3 players. This tool is used to exchange and share audio programmers among patrons over the Internet. King and Brown (2009) noted that libraries can share pictures, events, and instructions by podcast. Podcast is a catchy tool to market library services and attract new users (Lee, 2006). Audio streams of lectures and book readings may be beneficial for students who are visually challenged or have poor reading and comprehension competencies. Podcasts are frequently used to broadcast speeches and interviews of important personalities. Libraries use podcasts mainly for offering tips, using the audio format. This format provides potential benefits for delivering library instruction in a medium that will supplement traditional methods and also provides a useful alternative for the increasing number of online courses and distance students. Podcasts and videocasts have been successfully used in delivering library web-based services.

5.7.   Flicker

Flicker is a photograph and video hosting site, as well as a Web service site. , founded in 2004. It is also an online community of professional and amateur photographers for users who wish to publish and share their images and videos on the web. Flickr allows users to store, edit, organize, share, geo-preference, generate products with images, define forms of access to images, take part in discussion forums and maintain contact within an online photography community. The use of Flicker may allow archives and libraries to generate new means of access to an

interaction with their patrons, as well as broaden the knowledge of such heritage to a larger and more diverse audience.

5.8.   Mashup

Mashup is a web-based application which combines two or more services or data, using technologies including AJAX (Asynchronous JavaScript and XML) and RSS in order to create a new service. Nowadays, many organisations are providing various featured services, for example, Google map and Flickr have started new Mashup service named 'Earth Album', which allows searching most stunning photos available in Flickr database by simply clicking on a particular geographical location in a Google map. Similarly, there could be many possibilities with regard to the use of Mashup features in libraries, such as libraries can indicate the circulation section, reference section, shelf areas, specific collection or may be a specific title on shelves, and various library branches in a university etc. in an online map by combining the similar technologies, which might be useful for the user community. Again libraries can collaborate with various commercial database vendors to linkup their catalogues with them.

5.9.   Social Bookmarking

Social bookmarking is a method for Internet users to organize, store, manage and search for bookmarks of resources online. Social bookmarking tools can include annotations and tags to assist in locating resources again and in sharing with others. These tools can foster collaboration and sharing of collections of online content. Provide a mechanism by which library patrons can contribute resources to a topic area as well as tag (label) the content areas. In essence, users can collect their favourite-resources

in an online, open environment that other users are free to read (Barsky& Purdon, 2006).

5.10.   Tagging

Tagging is a practice where users assign uncontrolled keywords to information resources. On a website in which countless users tag its items, this collection of tags called folksonomy. The tags added to a folksonomy can be arranged into a tag cloud. A tag cloud is a collection of the most popular tags arranged in a cloud-like manner so that the more popular terms are represented with the large font sizes (Anfinnsen, Ghinea&Sesare, 2010). In the Web 2.0 environment, users can participate in the cataloguing process by tagging the library collection. Library OPAC can allow users to define their own keywords for library resources and to parallel subject headings defined by librarians. Likewise, the library tag cloud can encourage users to browse their matched terms.

6.   Impact of Collaboration Tools Concepts on the Academic Library

 Libraries play a very pioneering role in the implementation of the web technologies.Ranganathan also said 'library is a growing organism'; Libraries are gradually accepting the new technologies viz. collaboration tools for organize, gather and disseminating the information to its users. Earlier, the libraries have networked with other libraries for providing interlibrary lending as well as resource sharing.Now, the resources becoming digital which can access anywhere outside the library collections.So, libraries are ready to adapt the relevant technologies and this is being done by libraries utilizing the various web tools and tries to provide and access the digital resources to and from outsiders. Again, today's web facilities provide the information in a variety of formats that can be au-

dio, video, images etc. which not only restricted to textual document. On the contrary, these formats of information have warned the traditional library community where the users cannot meet the need of their requirement. In order to sum up this situation, libraries will need to reinvent the services, tools and facilities in a W3 world, where information exits in variety of formats. Katz (2008) says, "Modern computing has facilitated a new world of challenges for libraries by bringing about global access to information unrestricted by location." Collaborating tools connecting the libraries, so the users based on their interests to a variety of sources in a variety of formats, including connecting readers to authors is well within the traditional mission of libraries. Collaboration tools help colleagues, students and peers work together in professional and personal project-based settings. Some of these online tools require real-time attendance, and others are asynchronous for use whenever it is convenient for those collaborating. Where paper, pencil and live meetings were once the requirement for collaboration, 21st century collaboration tools now require only an internet connection. Wikis, document sharing, webinars and collaborative editing tools all work to facilitate collaboration among users around the world. Innovations in web technology spurred the Information Age, a time period featuring fluid, almost instantaneous information transmission. The collaboration tools offers interfaces such as email, instant messaging and chat rooms that help with simultaneous transference of information to a large number of people.

7.   Survey

A web based survey of north eastern university library web page is done to know how far these libraries has adopted these collaboration tools in a comprehensive way viz. RSS Feed, Blog, Wiki,

Podcast, Instant Messaging, Social Bookmarking and Tagging, Social Networking Sites etc. However it is found that the libraries of this region are lying far behind to accommodate with those collaborative tools.

The survey found that the Assam University library vizRabindra Library have Ribindra Library Blog under Staff module and NEHU library having presence of the Instant Message in the library web page. Following is a brief discussion of the university Library website:

7.1.   Gauhati University

In the index page of the Gauhati University library viz. the Krishna KantaHandiqui Library has given the brief history of the library with objective and mission statement. There are seven links found in the KKHL i.e home. administration, infrastructure, holdings, E-resource, Notice Board and contacts us under 'administration' name of the contact person with e-mail id is given under the module 'e-resources' of the library 23 full text 6 bibliography and 4 open access link is given. Webmail service is provided for the university but not specified for the library.

Figure-2

7.2.   Dibrugarh University

The index page of Dibrugarh University library viz**.** LakshminathBezbaroa Library has given the brief profile of the library. In the web page has 6 links viz. profile, resources e-journals, digital Library, search and library notice. In the link 'e-journal various subscribe e-journals and databases are listed.no module or tools use to connect directly to the librarian.

7.3.   Assam University

The index page of Assam university library formally Rabindra Library has eight links in the top of the page namely about, services, rules, staff, news, journals, forms and photo gallery. Library profile is given the index page of the library website. Under the module 'staff' listing of library staff along with the contact information is given and a well manage Rabindra Library Blog is link to to the user update.

7.4.   Tezpur University

The university web page of Tezpur has given the link to library in the bottom of the webpage under 'quick look'. There are fifteen drop down link in the side menu bar and eight links in the top of the menu bar. The top of the menu bar link contains university home, knowledge repository, OPAC, library col-

lection, library governance, library rule and contact us. A brief description of the collection of the resources is given in the index page. In the drop down link of the index page, a link 'ask the librarian' is given which include the email id of the librarian with an appeal to post any comment and advice relating to the library.

Figure-3

7.5.   North Eastern Hill University

The link of the central library ,NEHU is given in the side menu bar. In the index webpage of the library has given a brief description of the library and its vision and mission. There are ten link in the top of the menu bar viz. overview, location guide, membership, library rule, library revise rates, sections & units, directory, useful links, FAQS, forms. Under the link 'location guide' clearly given the various section of the library.

7.6.   Tripura University

In the index page of the library has mentioned the general information of the library. There are six links in the side menu bar- general information, facilities available and rules, UGC-INFONET, e-journal program, INFLIBNET ISI web of knowledge,

INFLIBNET open journal systems, e-book links. In the webpage link for e-resource has been found. However staff pattern and the contact information is given on different web page.

7.7.   Sikkim University

In the web page of central library, Sikkim University has given the brief description of the library. A page link on the central library is available at the university web page of Sikkim University. In the side menu bar three modules has been given namely INFLIBNET link, library portal and library rules.

7.8.   Mizoram University

In the single index page of the university library website has given the brief introduction to the library, staff position subject wise collection of the

library. Five modules has been added to the page but not connected to the internet.

7.9.   Manipur University

A single page of library is available in the webpage of Manipur University where contain the physical facilities, available resources of the library, rules and users data. Three dropdown links are available in the page viz. membership, resources and staff. The contact information of the Librarian is available in the staff module.

7.10.   Nagaland University

Three different webpages for library are available for three different campuses namely central library, Lumami, central library Kohima and central library Medziphema. Each index page of the library has brief description about the library, its collection and the available ICT facilities. A separate link for e-resource is given in the university web page.

8.   Conclusion and Scope for Further Research

Academic libraries act as knowledge repositories and agents for dissemination of knowledge. Invent of collaborative tools, transformed the places into the remote location along with the information. This kind of technologies fulfils the library mission to collaborate and engage spaces where librarians can connect and converse with users. It will surely improve the quality of library services in terms of the requirement of the user community. It will also be able to transform the various library functions and services. So librarians and information managers must welcome and adapt this new concept in libraries. The librarians' authority and domain will be open to a larger section of the user community and will actively participate in the various library functions and services. In order to move with the times and

meet expectations of library users in the latest technological environment, it is important that libraries investigate the potential of new technologies, whether they can be used in libraries, by whom and for what purposes. Library 2.0 is the form of collaboration tool and is virtual reality of the library, a place where one can not only search for books and journals, but interact with community, a librarian, and share knowledge and understandings with them.

It is concluded from the review that the library and information science professionals of the Academic Libraries are well aware with the modern concepts like collaboration tools such as Web 2.0, Library 2.0 etc., but implementation is very less as far as rendering or library services are concerned. The above surveyed library perceived collaboration tools at a comprehensive stage. Use of these tools in the library will surely enhance the library services. For that the library should have specified professional staff, a helpful attitude of the university authority, and a nodal and professional organisation that especially with focus on the Library 2.0 standards and different tools and techniques for providing the better library services.

Further research in a similar area may have a wide range of choices. An evaluation or a survey on applications of collaboration tools in libraries that focuses on some specific groups of users may be a potential issue for exploring. Some Web 2.0 technologies appear to be intended for communication with a specific audience like the professional library community. Again how these tools are being used by the academic libraries in the developing countries and how these have enhanced library services etc. are the potential area in near future research.

9. References

1. Thanuskodi, S. WEB 2.0 Awareness among Library and Information Science Professionals of the Engineering Colleges in Chennai City: A Survey. JournalofCommunication, 2011, 1(2), pp. 69-75.

2. Tripathi, Manorama, Kumar, Sunil. Use of Web 2.0 tools in academic libraries: A reconnaissance of the international landscape. The International Information & Library Review, 2010, xx, pp. 195-207.

3. Aqil, Mohammad, Ahmad, Parvez, Siddique, Mohammad Asad. Web 2.0 and Libraries: Facts or Myths. DESIDOC Journal of Library & Information Technology, 2011, 31(5), pp. 395-400.

4. Scale, Mark-Shane E. Assessing the Impact of Cloud Computing and Web Collaboration on the Work of Distance Library Services, Journal of Library Administration, 2010, 50, pp.933-950.

5. Adekannbi, J. Web link analysis of interrelationship between top Ten African Universities and world universities, Annals of Library and Information studies, 2011, 58 (2), pp. 128-138.

6. Balaji, B P. and Kumar, Vinit. Use of web technology in providing information services by south Indian technological universities as displayed on library websites, Library High Tech, 2011, 29 (3), pp. 470- 495.

7. Library Success. RSS available at www.libsuccess.org/RSS (Accessed on 11.07.2014).

8. Cyprien P. Lomas, Carie Page. Collaboration Tools, ELI Papers and Reports, EDUCAUSE Learning Initiative (ELI), August 2008. Available at http://www.educause.edu/library/resources/collaboration-tools (Accessed on 09.07.2014).

9. Olejnikova, Lucieand Wittman, Jessica de Perio. The Case for Collaborative Tools. AALL Spectrum, December 2008 available at http://digitalcommons.pace.edu/lawfaculty/534/ (Accessed on 09.07.2014).

10. Imran, Sheikh Mohd, Impact and Application of Web 2.0 in Libraries: A Case Study of 12 National Libraries of The Developed Nations. Brazilian Journal of Information Science: Research Trends, 2011, Vol 5, No 2, pp. 41-56.

11. TechSoup for Libraries. Effectively Collaborating with Other Libraries and Partners available at http://www.techsoupforlibraries.org/cookbook-3/communication-and partnerships/effectively-collaborating-with-other-libraries-and-partner (Accessed on 11.07.2014).

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