

Social Networking Technologies (SITs) in Digital Environment: Its Possible Implications on Libraries

Abstract

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Social networking is a social structure that lets the user interact and work collaboratively with other users, including the ability to browse, search, invite friends to connect and interact with web world. Social software in the web 2.0 world not only enhances the practical usability in the library but also helps the diminishing librarians add value to their profession, given the value or potential of librarian being questioned in the information landscape. In this paper, the author has intended to describe the possible implications of social networking technologies in the field of library and information services in the web 2.0 milieu. In addition, an attempt has been made to illustrate different social software tools and their effective utilization in the social networking environment. Finally, the author has cited some stunning examples of library being run in the world using the web 2.0 technologies, besides making an endeavor to highlight the role of information professionals to carry out the same in the digital library environment.

Keywords: Web2.0, Library 2.0, Social Network, Social Software, Digital Library 2.0, Social Library

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1. Introduction

Information and Commutation Technology (ICTs) has ushered in a histrionic change in the realm of information communication in the recent time. New change that has been crept into the field of information technology following the impact of emerging technologies and global economy has revolutionized the process of reformation among

all organizations and their operational set up. As organizations worldwide thrive on modern technologies, the application of web 2.0 domain in the field of Library information and communication has no exception. The web 2.0 domain has been introduced as an experimental field to be accepted and implemented for rendering virtual digital library services to patron. Social Software is quite lucrative before librarian 2.0 to accept, analyze and apply this new booming technology for the maximum benefit of the user 2.0. Professional competency needs to be developed among library professionals to be readily equipped with these social networking tools such as RSS, Wiki, Blogger, flicker, Library Think, Elf and so on. With the introduction of this domain, the credibility and value of librarians will get a boost. For this, the user needs to be empowered over web 2.0 technologies and services which can be applied for life long learning in the scenario of information landscape.

2. Social Networking: A Conceptual Approach

The term “Social Networking” refers to a range of web-enabled/it-enabled software programs that allow users to interact and work collaboratively with other users. It includes ability to browse, search, invite friends to connect and interact, share film reviews, comments, blog entries, favorites, discussions, events, videos, ratings, music, classified ads, tag and classified information and more. A social network allows individual to join and create a personal profile, then formally connect with other users of the systems as social friend. It can be expressed as social connecting sites among the social user in web 2.0 domain. The potential of social networks to be relevant to information seeking and sharing from the more specialist web 2.0 sites.

Social network sites as web-based services that allow individuals to (1) construct a public or semi-public profile within a bounded system, (2) articulate a list of other users with whom they share a connection, and (3) view and traverse their list of connections and those made by others within the system (Boyd, 2007).

The newly proposed Deleting Online Predators Act of 2006 states the term “commercial social networking website” means a commercially operated Internet Web site that allows users to create web pages or profiles that provide information about themselves and are

available to others users; and offers a mechanism for communication with other users, such as a forum, chat room, email, or instant messenger (Fitzpatrick, 2006).

Social network analysis views social relationships in terms of nodes and ties. Nodes are the individual actors within the networks, and ties are the relationships between the actors. There can be many kinds of ties between the nodes. In its simplest form, a social network is a map of all of the relevant ties between the nodes being studied. The network can also be used to determine the social capital of individual actors. These concepts are often displayed in a social network diagram, where nodes are the points and ties are the lines. Before introducing social network in library , let have look on conceptual approach to web 2.0 and library 2.0 in digital library scenario.

3. Web 2.0 in Library

Web 2.0 is the collection of server-based solutions that have allowed the web to become a publishing platform (Abram, 2005). Instead of the traditional one-way form of web authoring, these solutions invite all Internet user to share, collaborate, and contribute in the process of website development.

Shortly after releasing the paper, Tim posted a shorter definition of Web 2.0 on one of his company's blog mentioned as:

'Web 2.0 is the network as platform, spanning all connected devices; Web 2.0 applications are those that make the most of the intrinsic advantages of that platform: delivering software as a continually-updated service that gets better the more people use it, consuming and remixing data from multiple sources, including individual users, while providing their own data and services in a form that allows remixing by others, creating network effects through an "architecture of participation," and going beyond the page metaphor of Web 1.0 to deliver rich user experiences(O'Reilly, 2005). 'Web 2.0' simply refers to the emergent generation of web tools and applications. Since its debut in 2004, the Web 2.0 phenomenon has made a significant impact on the information landscape. Social software tools, technologies associated and its services can be given in a brief figure-1 as:

Web 2.0 Web Sites	Web 2.0 Technology	Explanation of Service
Podcast Maker, Procast, Odeo	Podcasting	Multimedia authoring and syndication
MediaWiki	Collaborative Authoring	Open editing and tagging
Flicker, Slide, Zoto	Photo and Image Management	Open image access and tagging
Delicious, Blinklist, Stumbleupon	Social Tagging	Democratic website ranking
Digg, Newsvine, Gabbr	Peer Producing News	User decide what is news
YouTube, Google, Video, Metacafe	Video collections	Video Uploads
Blogger, WordPress	Blogging	Personal authoring and publishing
Joomla, Drupal	CMS	Web design and management
MySpace, FaceBook, Xanga	Social Netwoking	Connect single user with hub of friends
GoogleDocs, Rallypoint	Collaborative Writing	Online word processing
Google, Yahoo Answers, IMDB	Customized Search Engines	Targeted searches
Wayfaring, Frappr, HouseMaps	Mapping	Sharing personal maps

4. The Buzz Word Library 2.0

The concept of Library 2.0 has been borrowed from web 2.0, and follows similar philosophies of this concept. Since its introduction, it has changed the concept of literary communication. Library 2.0 is a mixing concept that focuses on a number of ongoing conversations around the changing ways that libraries should make themselves and their services visible to end users and to one another. Maness (2006) defined “Library 2.0” as “the application of interactive collaborative and multimedia web-based technologies to web-based library services and collections.” It is the application and implication of web 2.0 principles and technologies in the field of library and information services. So, it is just a paradigm shift of library in the field of internet library epoch. Libraries and information centers can underscore the importance of Library 2.0 because it breaks the cycle of “plan, implement, and forget” that many services and plans suffer (Miller, 2005). Library can be a part of web 2.0 by harnessing the concept, principles and technologies for rendering exemplarily services to user in electronic world. It’s a framework for incorporating all changes made at all levels in the management of library. Since it is our

sincere effort to reach this new level of service in web 2.0 technologies to user, now librarians must begin to use this Web 2.0 application if they want to prove themselves just as relevant as other information providers, and start delivering experiences that meet the expectation of the modern user in the information-rich world. As communities change, libraries must change in tandem with them and allow users to change library. It should be a relentless drive to seek new ways to allow communities to seek, find and utilize information in a productive way. Therefore, it is necessary to understand the concept of Library 2.0 and the opportunities it creates for libraries to provide content and services to users.

5. Potential of Social Networking

Social networking can be relevant to information seeking and sharing on information retrieval perspective by providing speed and quick information to the information community by connecting and collecting digital information required by the user. Social networking sites like MySpace, FaceBoook represent a new and powerful service through web 2.0. User can connect to other user from various part of internet domain by applying social networking tools for information communication, organization and information distribution. The idea behind the social networks is that they operate on many levels, right from the family level up to the level of the nations. They have come to play a very important role in determining how problems are solved, how organizations are run, and the efficiency with which individuals succeed in achieving their goals. Social networking websites function like an online community of internet users. Depending on the website in question, many of these online community members share a common interest such as hobbies, religion, or politics. Once you are granted access to a social networking website you can begin to socialize. This socialization may include reading the profile pages of other members and possibly even contacting them. Some solid motives behind social network are:

- I. Anticipated Reciprocity - contribute valuable information; expect that one will receive useful help and information in return

- II. Increased Recognition - individuals want recognition for their contributions
- III. Sense of efficacy – contributors believe that they have had some effect on this environment or community
- IV. User Participation- User wants more participation and contribution in social web. More social and collaboration. Social networking could enable librarians and patrons not only to interact, but to share and change resources dynamically in an electronic medium
- V. Embrace radical trust
- VI. Engage in rapid change-drastic and rapid change has been seen since past decade
- VII. Communally innovative- It rests on the foundation of libraries as a community service, but understands that as communities change, libraries must not only change with them, they must allow users to change the library
- VIII. Open access movement- Libraries make collections available via open, personalized, interactive services that encourage content creation, editing, commenting, bookmarking, rating, tagging, etc. by users
- IX. Multimedia enabled**

6. Features of Social Networking Services

Social networking in the field of information landscape can be great contributor to the field of information poor society. It has several unique features that can serve the user community where availability of resource is a great challenge to library field. Library should experiment and come forward to accept this new budding technology. It has some major features like social collaboration, easy surfing, more participation, private messaging can be easily possible by communicating thousands networks, discussion forums, events management, blogging and commenting, media uploading, multimedia enabled, interactive and collaborative learning are some of the important features that you can see in social networking.

7. Popularity of Social Networks

The popularity of social networking sites on the Internet introduces the use of mediated-communication into the relationship development process. Social networking behemoth MySpace.com attracted more than 114 million global visitors age 15 and older in June 2007, representing a 72-percent increase versus year ago. Facebook.com experienced even stronger growth during that same time frame, jumping 270 percent to 52.2 million visitors. Bebo.com (up 172 percent to 18.2 million visitors) and Tagged.com (up 774 percent to 13.2 million visitors) also increased by orders of magnitude. Popularity of social networks are increasing widely which we can see from the below table represented as fig-2 as:

Popularity of Social Networks			
Social Networking Site	Total Unique Visitors (000)		
	Jun-06	Jun-07	% Change
MySpace	66,401	114,147	72
Facebook	14,083	52,167	270
Hi5	18,098	28,174	56
Friendster	14,917	24,675	65
Orkut	13,588	24,120	78
Bebo	6,694	18,200	172
Tagged	1,506	13,167	774

Fig-2: Popularity of Social Networks

8. Practicing Social Networking in Library Services

Social Networks or social software can be used for providing user centric service in social library environment. User attitude towards library is changing day by day. User wants most practical and speed information in e-learning age. But providing quick and easy retrieval information to user is a great challenge to library. Therefore library should find and search some new techniques for impacting valuable information to the user. Virtual Reference Desk (VRD) can be performed by wikipedia. You can plan, design and disseminate information to patrons by KM Wiki. Marketing of library services can be possible by using social software tools like Podcast, YouTube, Blogger, SecondLife, Ning etc. Catalogue some of your library books on library thing. Library can host their personal websites in PBwiki or blogger. Library version can be possible by secondlife. Start a library podcast and interview students, teachers, patrons and members of the

community. Digital video library can be framed by using the most successful tool like YouTube in Library. Impacting and planning online course curriculum in online learning environment by PBWiki. Support just-in-time reference, since students may find it easier and more comfortable to communicate with a librarian through this medium than in traditional ways. Take online assistance by implementing chat reference i.e. IM in library. Library assignment and teaching scheduled through social software tools like Joomla. Professionals can put their collections on flicker. Footnote.com may be used to learn about history of library. After all it will be helpful to provide the means to learn more about students, which can help libraries, better meet their needs.

9. Social Networking Tools and its Possible Implication in Library 2.0 Environment

Social networking helps librarian to share information with patrons and students in the easiest way for digital library environment. Librarian can use in three broad activities in library and information services. The major three are Information communication, Knowledge distribution and knowledge organization

9.1 Information Communication: In this process librarian can keep constant touch and effective interaction with staff, patrons, and faculty in online collaborative environment. The social networking tools that can be practiced by the library for the aforementioned purposes are:

- I. MySpace: MySpace (<http://www.myspace.com>) and Facebook (<http://www.facebook.com>) are extremely popular social networking sites which primarily have a social function allowing people to make friends, talk online and share resources.
- II. Facebook: Another social media site frequented by students, Facebook is librarian friendly. Group communication among patrons can be possible in web 2.0.

- III. Ning: Librarian can use this tool to get connected with students, library associations, and more. You can also use it to share information with many people at a time.
- IV. Blog: By creating a blog, you'll be able to disseminate information to lots of people at one time. Whether you're updating students on new collections, or just conversing with library staff, blogs are a powerful tool, especially when combined with RSS.
- V. Meebo: Network and assist students on Meebo, no matter what IM client they use. Online chatting or virtual reference service in library can be impacted by professionals to clients.
- VI. LinkedIn: This social networking site for professionals is a great way to get library patrons connected with the people that can help them find information. Whether that's you, faculty, authors, historians, or other sources, they can find them in your LinkedIn network.
- VII. Twitter: Use Twitter, a microblogging application, to keep staff and patrons updated on daily activities, like frequently updated collections, new arrival, current content services of library.

9.2 Information Distribution: Information sharing is the major part and crucial area where professionals should look seriously while considering and designing library activities in digital age. Patron's satisfaction should be given first and foremost priority by providing right information at the right time in a right way from anywhere. Library professionals should rethink for implementing web 2.0 technologies in library services from early period.

- I. Flickr: This image distribution tool is a great way to share new image collections. Library can share photo collection of workshops; conference and different programmes that are organised within the campus. You can create image sets with metadata, as well as take advantage of the many plugins available for Flickr users. Flickr users can also help gather missing information about images.

- II. YouTube: Library video and e-learning tutorials, events and others video library services can be effectively promote and webcast through YouTube.
- III. TeacherTube: TeacherTube, which is a YouTube for teachers, presents an excellent opportunity for instructor-librarian collaboration. Instructors can guide students to helpful library resources, and vice versa.
- IV. Second Life: On Second Life, you can create a virtual library with streamed media, discussions, classes, and more.
- V. Wikipedia: Wikipedia is an online encyclopedia updated by users. You can use this tool to share your knowledge by editing, or simply point library patrons in the right direction. You can also host your library websites on wiki software like PBWiki.
- VI. PBwiki: PBwiki is the world's largest provider of hosted business and educational wikis. It encourages collaboration from students, a way to showcase work, and offers a central gathering point for information. PBwiki offers controlled access, so you can give some editing privileges, while others can only read.
- VII. Footnote: On Footnote, you'll get access to original historical documents, and can update them with your own content and insights. You can even find personal anecdotes and experiences you won't find in reference books.
- VIII. Community Walk: Community Walk offers a geographical way to interpret text and events. You can use it for instruction, such as showing someone where to find a book, or walk them through a historical and geographical timeline.
- IX. SlideShare: Encourage faculty, staff, and students to share their slideshow presentations for the greater community to access on SlideShare. It's a great way to disseminate information among research community to the field of research and development (R&D) activities.
- X. Digg: Digg is a great way to find useful content that you wouldn't come across in traditional ways. Find stories here, then share them with others using Digg's blog function.

- XI. StumbleUpon: Another way to find great content is with StumbleUpon. You can channel surf the Internet to find useful content, research tools, and more.
- XII. Daft Doggy: If you've found a particularly good resource, you can use DaftDoggy to create a website tour with instructions, pointing out useful references and items of note.

9.3 Knowledge Organization: Social software can help the professionals in KO environment for getting handy information which can be accessible with the social networking technologies in web 2.0 milieu. The below mentioned tools can effectively in library and information centre for patrons as:

- I. aNobii: Social networking site like aNobii helps book lovers to share reviews and recommendations. It also prepares due date alerts, lending, and discussions.
- II. Del.icio.us: With this social bookmarking tool, you can create a custom directory for library patrons. Teach them to search by your tags, and it will be easy to find useful Internet research links.
- III. Netvibes: In Netvibes' new Ginger beta, you can create a public page that can be viewed by anyone. You can use it to help guide patrons to helpful internet sources, news feeds, and more. It can be integrated with many of the tools mentioned here, like Flickr and library blogs.
- IV. Connotea: Connotea is a great reference tool, allowing you to save and organize reference links and share them with others. They can be accessed from any computer and offer integration with lots of other tools.
- V. LibraryThing: This social cataloging network is great for librarians, and you can catalog along with Amazon, the Library of Congress, and more than 200 other libraries around the world. You'll get recommendations and easy tagging as well.
- VI. lib.rario.us: Another social cataloging site, you can put media such as books, CDs, and journals on display for easy access and tracking (Hupp, 2008).

The above mentioned social software tools and services can be represented in the fig-3 as:

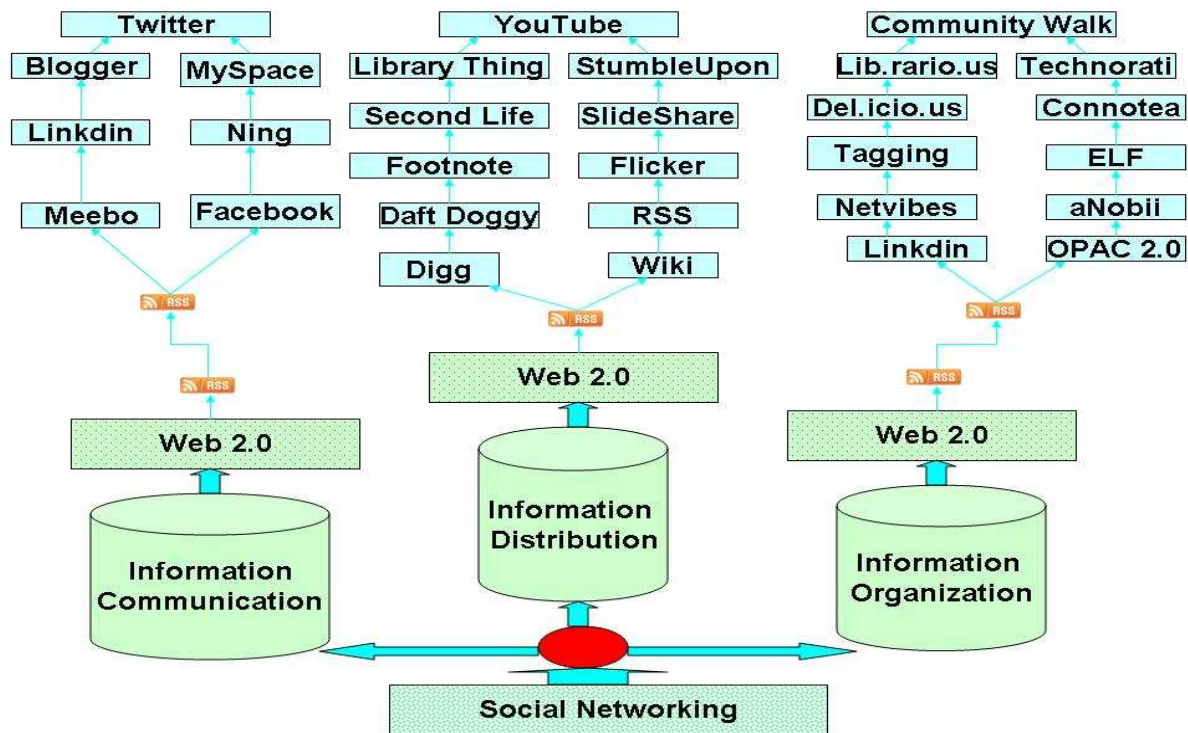


Fig-3: Web 2.0, Social Networking and Tools

With these social networking tools, it can be easier than ever to stay in touch, organized, and well connected.

10. Opportunity and Implication of Social software in Libraries

Social software can be taken as big option by the information centre for proving high and qualitative resource for user 2.0 .However implication of social software may be a difficult part on the part of new professionals but still expertise over it will be given an immense impact to the library .Social software like Wiki, RSS feed, Blogger, Library Thing, Delecious, Elf etc can be used for information sharing and collaboration among the online community. If you will think for professional dwindling side where the role of librarian in the current scenario of IT age is question mark, it can be taken as fine tune to utilize web 2.0 technologies in the field of library services. Here librarian can act himself

as role model to professional community for the promotion and adopt social software in the library. Hence both challenges and opportunity should be considered while adopting these technologies. MySpace and Facebook offer easy-to-use tools that will help you set up a Web presence. Social networking sites can be an effective way to encourage people to take action or spread the word about your foundation. Social networks can be a useful, immediate way to stay in touch with a group of people, and let them know what's going on with you, your library. Socialization of library with more visibility can be possible by planning, designing and implementing social networks in your library. Social networking website provides great opportunities for Librarians to interact with their users as it places them in the digital social space of their users. The websites can be use effectively for outreach and promotion. Librarians can get first hand information about the user through interacting with them. They can then understand the behavior of the user and design services to meet the needs accordingly. Two libraries that have successfully used these social networking websites are the Hennepin County Library (HCPL) and the Public Library of Charlotte & Mecklenburg County (PLCMC). HCPL has embedded a search box in their MySpace profile to enable the users to access their collection while PLCMC features blog post as well as an embedded IM window. Social networks are a great way to test your commitment to open communication. You can post and receive library development's feed back by IM communication like lisforum, newsgroups so that maximum development and visibility of library can be achievable.

11. Challenges before Using Social Software in Libraries

Web 2.0 is totally a new concept before the professionals. It supposed to be much more about the working culture and willingness to communicate openly in virtual network. User participation is the key for the successful implementation of social software perception in the virtual world. Therefore library should think and crack the challenges to stand as good social partner in the online collaborative environment. The following challenges should mull over while implementing social software in library as:

- I. **Culture:** The need for an open, transparent, horizontal working culture. It is not always a prerequisite but it is conducive for effective and creative online knowledge sharing. For example, a wiki needs a certain degree of trust; not everyone wants to sit hours to check the amendments on a document.
- II. **Organization Support:** To have a commitment from the management for collaborative web tools. A shift to horizontal transparent communication opens new venues to present the organization's life. It is also necessary to have support for the change management process.
- III. **Conviction:** Having good arguments to proof why these tools are useful (needs another post). For example, they can even reduce the information overload. From my experience they clearly involve more work in the beginning, but additional value comes quickly by tagging or exchange experiences in blog posts. Idealistically, after a while, communication only shifts but is more efficient and creative.
- IV. **User Orientation:** Developing a web-based communication culture needs orientation. Blogs are totally different from a workflow based intranet. Therefore a policy can help to explain the advantages and also show the limits of interaction.
- V. **User Participation:** In the beginning usually only few users participate; that's why a critical mass of contributors is important. Web2.0 tools are ideal for revolutionary marketing, where motivated contributors serve as multiplier and can easily train others to join.
- VI. **Resources:** Be aware the tools are cheap and easy to install, but do not underestimate the resources you need. A facilitation for a blog or a wiki is very important especially in the beginning, so users are not frustrated in their first steps.
- VII. **Patience:** To incorporate web2.0 tools to an organization takes time. A few months can pass by before participation reaches a sufficient level, but on the mean time the process is exciting.
- VIII. **Training:** Web2.0 might be easy but many people from the organization are totally new to the applications. Things such as tagging, RSS or basic upload functions have to be often explained.

- IX. **Usability:** Invest time in design and how to create visually your applications. Usability is very important because users shall take advantage of all features offered. For example many wikis especially lack usability. Therefore a design, documentation and help section (e.g. screencast) is decisive for users to participate.
- X. **Software:** Implement a solution on your own server or rely on an application service provider. To which extent your organizational communication has to be internal? What can be exchanged within networks of partner or even in public?
- XI. **Privacy, IPR, copyright issues of social software:** JISC highlighted these issues as being pertinent to the teaching and learning community and they are similarly relevant in the context of library developments. Storing personal data on remote systems raises obvious privacy issues, but IPR and copyright issues also need exploring.
- XII. **Technical and institutional barriers:** The JISC report also highlighted technical barriers to using social software in educational establishments. Certain social software may conflict.

12. Role of Information Professionals on Using Social Software

The potentiality and credibility of librarian is a question mark in the age of information landscape where technology is changing drastically. The ongoing debate on role of libraries “inefficient, limited and obsolete” (Crawford, 2006). The answer may be “Yes”. Libraries and Librarians more important but they need to change. The geometric increase in the quantity and quality of information, greater access, easy and quick retrieval of information are most crucial issues in scenario of knowledge management. Also virtual presence of libraries is seems to be great debate for future. Web 2.0 and its implication in library should be considered as huge challenge among the professionals. But on the other hand it would be an unique opportunity among the librarians to raise their visibility in information world by applying these new technology in library activities. Every library should have attained library 2.0 status by 2010. Therefore the role of librarian can not be ignored in library 2.0 community for winning the massive expectation of user in digital

library environment. Librarian in the age of web 2.0 should perform the following roles for catering the needs of user 2.0.

- I. **Information Broker:** As a information broker he should identifies, retrieve, organize, repackage and provides electronic access to digital information resources by various means.
- II. **Change Agent:** ICTs has posed a great challenge .For proper access of e-information librarian should work as technology application leader. He should time to times evaluate systems that would facilitate e-access.
- III. **Information Facilitator:** Accessing timely and easy retrieval of information is major issues in libraries. Librarian as information facilitator should make information access easier by providing easy network access, adopting suitable software, follower of web 2.0 tools, e-journals licenses, and designing portal.
- IV. **Knowledge Educator:** User awareness on web 2.0 tools are crucial for successfully implementing web 2.0 in the library. Librarian should trains clients on internet use i.e. tools, search engines, e-journals, e-databases, using of information portal, online tutorials etc to user so that user can be used for accessing potential information from various web resources.
- V. **Innovative Manager:** Concerning on the role of innovative manager the activities like web site or knowledge portal design by giving various links from various information resources, providing information awareness on what library services available in the website with their effective use to the user. As far concerned he should time to time evaluate websites on user centric approach.
- VI. **Effective Collaborator :**As a suitable collaborator it required the activities like expanding of collaboration not just with fellow librarian but IT people who have experienced on using of recent web 2.0 tool so that some knowledge can gained from them on how and when to use web 2.0 resources in the library. Libraries not only should examine how social software can improve services to their patrons, but they should also consider how these tools can improve internal communication and collaboration.

- VII. **Policy Maker:** Web 2.0 policy should be strictly followed and framed for the organization ensuring total or selective access to all information resources. However if possible it should be effectively analyzed before implementing in the library.
- VIII. **Image Maker:** Add value to the library to gain management support and project a positive image to the outside world.
- IX. **User Interaction:** Finally, librarians often talk about providing outreach to their patrons. This usually means getting out of the library and providing services where patrons congregate. Libraries should be aware of their patrons' online social worlds, whether these are Massively Multiplayer Online Games (MMOGs), social networking sites, or other online communities.

First and foremost, Librarian 2.0 understands his or her users at a deep level – not just as pointers and clickers (Habib, 2006). Librarian 2.0 understands end users deeply in terms of their goals and aspirations. Accordingly action plan should be framed for implementing the concept of web 2.0 in library field

13. Conclusion

There is a great deal of potential inherent in social networking softwares (SNSes) for professional development and professional networking purposes. This is particularly true for the library and information industry which is already embracing web 2.0 technologies across many of its core activities. However, at the same time, there is a significant level of confusion, skepticism, resistance and even fear surrounding the use of these technologies within the workplace by many librarians, and not just the baby boomers. A suitable plan and strong evaluation needs to be looked while pioneering social networks in library. User required to aware and sufficient training should be imparted to staffs to accomplish the task of planning social software in library. Last but not the least large encouragement and user empowerment on technologies used in web 2.0 should given the prime priority so that thinking on implementing social software in library may be possible. The possible implication of social networking can be successful by conducting

maximum research and experiment on social networking from different point of view on library. Librarian is the sole custodian to accomplishment the task of planning, organizing and implementing social networks in library and information centre. In this context sufficient training and more expertise need to be gain by him to furnish an absolute shape to social networks in the library.

References:

1. Abram, S. Web 2.0 - huh?! Library 2.0, librarian 2.0. *Information Outlook*.2005. 9 (12), 44-46.
2. Boyd, d. m., & Ellison, N. B. Social network sites: Definition, history, and scholarship. *Journal of Computer-Mediated Communication*, 2007,13(1), 1. <http://jcmc.indiana.edu/vol13/issue1/boyd.ellison.html>.
[Accessed on 12 June 2008]
3. Crawford, W. Library 2.0 and 'Library 2.0:Cites and Insights, *Journal of Libraries, Policy, Technology and Media*.2006,6(2).
<http://www.cites.boisestate.edu/civ6i2.pdf>.
[Accessed on 10 June 2006]
4. Fitzpatrick, M. The Deleting Online Predators Act of 2006.*Journal of Tech Law*, 2006. <http://www.techlawjournal.com/cong109/bills/house/hr5319/hr5319ih.asp>
[Accessed on 29 December 2007].
5. Habib, M.C. Toward Academic Library 2.0: Development and Application of a Library 2.0 Methodology. North Carolina University,Chappe Hill, 2006. <http://etd.ils.unc.edu/dspace/bitstream/1901/356/1/michaelhabib.pdf>.
[Accessed on 7 July 2008]
6. Hupp, Jessica.25 Useful Social Networking Tools for librarians.*Collegedegree*. 2008.8(6), 67.<http://www.collegedegree.com/library/financial-aid.htm>.
[Accessed on 25 August 2008]
7. Maness, J.M. Library 2.0: The next generation of web-based library services. *Journal of the WorldBook Community*, 2006, 17(3), 139-145.<http://www.atypon-link.com/LOG/doi/abs/10.2959/logo.2006.17.3.139.htm>
[Accessed on 27 August 2008]
8. Maness, J. M. Library 2.0 Theory: Web 2.0 and its implication for libraries. *Journal of Webology*, 2006, 3(2), 25. <http://www.webology.ir/2006/v3n2/a25.html>.
[Accessed on 24 April 2008]
9. Miller, P. Web 2.0: Building the New Library. *Ariadne Magazine*, 2005, 4(45), 34. <http://www.ariadne.ac.uk/issue45/miller/>.
[Accessed on 21 July 2008]
10. O'Reilly, T. What is Web 2.0? *Oreillynet.com*, 2005, 9(30) <http://www.oreillynet.com/pub/a/oreilly/tim/news/2005/09/30/what-is-web-20.html#mememap>.
[Accessed on 17 July 2008]

11. O'Reilly, T. (2005). Web 2.0: Compact definition.
<http://radar.oreilly.com/archives/2005/10/web-20-compact-definition.html>.
[Accessed on 26 March 2008]
12. http://en.wikipedia.org/wiki/Library_2.0