Chapter 4
Social Software : Tools and Applications

4.1 Introduction

The networking of knowledge was considered to be necessity of libraries and library networks. But over the last decade the scope of networking widened greatly. The tacit knowledge which was mostly left out by libraries and library networks was slowly taken up and networked by individuals, mostly non-experts in knowledge handling, but dedicated to speaking out and listening to others through the World Wide Web. The Web has emerged as the most popular platform wherein information can be stored, collected, shared and distributed. It has revolutionised the way information can be accessed and disseminated. It has brought a sea-change in information seeking behaviour and has become the life line of millions of people globally. Sir Tim Bernes Lee developed WWW as a platform wherein the content could be created and uploaded. The early 1990s witnessed the proliferation of Internet usage among the organizations. With the growth of the ISPs and low cost affordability there has been a spur in the internet usage across the geographical boundaries of the world. The enormous growth in ICT has lead to more accessibility at less cost. It is estimated that the information doubles every eighteen months (1), unstructured information doubles every three months (2), corporate information doubles every 18 months (3), medical information doubles every 5 years (4), scientific information doubles every five years (5), biological information doubles every two to five years (6) whereas the sum total of human knowledge doubles every two to three years (7). It is also estimated that the world’s knowledge doubles every six months (8) and the printed knowledge doubles every five years (9). It is also claimed that the digital information in the world by the year 2010 will double every 11 hours. (10)

The WWW has transformed the way we have been interacting and communicating with each other. It has contributed to the building up of collaborations and communi-
ties. The whole globe has turned into a “global village” wherein we have anytime, anywhere, accessibility of content possible through high speed digital networks with the terabytes of information flow. The third wave which is called the ‘Information wave’ has brought a tsunami of information overload.

The Libraries and the Library professionals are concerned about creating a good rapport with their library users. They have been making concerted efforts from the conventional methods of ‘Library orientations’, ‘SDI Services’, etc. in order to create synergy between the libraries and their users. Libraries have served as social spaces in physical environments wherein users with diverse specialisations and interests have been interacting with each other. In today’s era of 21st century, libraries can have the most sophisticated tools and technologies to interact with their users efficiently and effectively. Libraries eventually lead them to knowledge sharing activities.

4.2 Social Software

“The Social Software can be loosely defined as software which supports, extends, or derives added value from, human social behaviour - message-boards, musical taste-sharing, photo-sharing, instant messaging, mailing lists, social networking” (11) .

It has enabled the web in Read/Write mode wherein the web is not only used in the conventional mode for reading but also the new content gets generated by the end users. This has lead to a fascinating fact that the users are now both the consumers and producers of online content. The majority of the social software have been recently developed. The focus on services in the libraries are getting more centered around the users. The participation of the users in such an environment is also vital. Some of the major characteristics of social software include: easy content creation and sharing (a number of libraries can create their own blogs or a number of libraries can start creating the wiki services); online collaboration (the wikis can be utilized to create the knowledge-bases); the personalized
services (through RSS aggregators), Portability (all social software are web based applications and can be accessed anytime, anywhere through internet connection) (12)

It is quite important to highlight the relevance of social software in libraries. In today’s time wherein information delivery mechanisms are changing, the LIS professionals have to think about re-orienting and redesigning their modes of dissemination. As more and more users are getting acquainted with the social tools like IM (Internet Messaging), it is in the fitness of things that the libraries start providing support and services to users through these tools. The libraries can create their own blogs to highlight their services, collection, etc and can also create knowledge-bases. The social software certainly enhance the interaction and confidence between the libraries and their users and contribute to knowledge sharing and dissemination.

I would like to mention that from the survey it is evident that the libraries in India are still ignorant about the applications of social software in libraries and how it could contribute for building up a more congenial environment for facilitating effective and efficient user-library interactions. 90.5 percent of the respondents are not using the social software tools in their libraries while only 9.5 percent libraries have mentioned its utilisation.

Table 40: The Use of Social Software in the Libraries

<table>
<thead>
<tr>
<th>Yes/No</th>
<th>Colleges (N=50)</th>
<th>Institutes (N=45)</th>
<th>Universities (N=22)</th>
<th>Research/ Special (N=30)</th>
<th>Total (N=147)</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>46 (92.0)</td>
<td>40 (88.9)</td>
<td>20 (90.9)</td>
<td>27 (90.0)</td>
<td>133 (90.5)</td>
</tr>
<tr>
<td>Yes</td>
<td>4 (8.0)</td>
<td>5 (11.1)</td>
<td>2 (9.1)</td>
<td>3 (10)</td>
<td>14 (9.5)</td>
</tr>
</tbody>
</table>

Chi-Square .279 Significant at .963 level Note: Figures in parentheses are the percentage
It is worth mentioning that 56.5 percent of the surveyed organisations have desired to use the social software in near future in their libraries. The library community will certainly come forward and implement such tools in their libraries once they are able to understand the magnanimous attributes of these social software tools.

Table 41: Future Plans to Use Social Software in Libraries

<table>
<thead>
<tr>
<th>Yes/No</th>
<th>Colleges (N=50)</th>
<th>Institutes (N=45)</th>
<th>Universities (N=22)</th>
<th>Research/Special (N=30)</th>
<th>Total (N=147)</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>20 (40.0)</td>
<td>20 (44.4)</td>
<td>6 (27.3)</td>
<td>18 (60.0)</td>
<td>64 (43.5)</td>
</tr>
<tr>
<td>Yes</td>
<td>30 (60.0)</td>
<td>25 (55.6)</td>
<td>16 (72.7)</td>
<td>12 (40.0)</td>
<td>83 (56.5)</td>
</tr>
</tbody>
</table>

Chi-Square 5.94 Significant at .114 level Note: Figures in parentheses are the percentage

It is heartening to note that LIS professionals are inquisitive to know about the social software tools and would like to get adequate training in the use of these tools. The survey results shows that 69.4 percent of the respondents are eager to get themselves and their staff trained in Social software tools.

Table 42: Interests Shown in Participating in Social Software Training

Programmes

<table>
<thead>
<tr>
<th>Yes/No</th>
<th>Colleges (N=50)</th>
<th>Institutes (N=45)</th>
<th>Universities (N=22)</th>
<th>Research/Special (N=30)</th>
<th>Total (N=147)</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>9 (18.0)</td>
<td>17 (37.8)</td>
<td>6 (27.3)</td>
<td>13 (43.3)</td>
<td>45 (30.6)</td>
</tr>
</tbody>
</table>
4.3 Web 2.0 Tools

I am going to highlight now the major Web 2.0 tools and their significance to libraries.

4.3.1 Blogs

"Blog is defined as a website, usually maintained by an individual, with regular entries of commentary, descriptions of events, or other material such as graphics or video. Entries are commonly displayed in reverse chronological order" (13). The term “Weblog” was coined by Jorn Barger in 1997. The website of NCSA (National Centre for Supercomputing Applications) was the very first website with blog like characteristics. (14) According to an online survey of the Americans, 8 million Americans (7 percent) have initiated blogs, around 32 million Americans (27 percent) read them and nearly 62 percent are not aware about them. (15). The websites including Pitas (www.pitas.com), Blogger (www.blogger.com) and Live Journal (www.livejournal.com), contain the free blogging software for downloading. Once we talk about the categorisation of blogs, they are either the journal type blogs or the link type blogs. It is now very much possible to link up to a single blog post using the permalink feature of the blogs. The “trackbacks” utility informs the blogger if someone else has referenced their blog post. According to Susan Herring, there are three types of blogs namely (a) filters – the blogs which provides links to important websites (b) Personal journals containing account of everyday life of the author of the blog (c) Knowledge Logs are blogs which are used to create original knowledge online. (16) The major LIS blogs wordpress (www.wordpress.org), Blogger (www.blogger.com) and Movable type (www.movabletype.org) are the most popular blogging platforms.
4.3.1.1 Blogs in Libraries

Libraries and Librarians are always wanting to explore new ways and means to reach to their users. The blogs are ideal tools for the dissemination of information. Libraries can always achieve the task of making the information available with better visibility through the blogs. In the year 2005, there was an emergence of the coinage of the term “Biblioblogosphere” relating to the library/librarian related blogging. By now a number of leading libraries are putting up information pertaining to new databases, subject resources, seminars/workshops’ announcements, new arrivals, new etc, through the blogs. The uses of blogs in the libraries are numerous. The subject blogs which provide information on specific subjects are quite popular among the academic and special libraries. The Georgia State University (www.library.gsu.edu/news) is a unique model for the subject blogs in academic environment. The University library provides 22 blogs which are on varied subject. Each of these blogs contain a variety of content, including subject specific databases, world news on the specific subjects, selective book reviews, etc. Some of the major subject blogs includes Binghampton University (New York) Science Library Blog (www.library.lib.binghamton.edu/mt/science), Ohio University Libraries Business Blog (www.library.ohio.edu/subjects/businessblog). The other kinds of blogs include reference blogs, the blogs to supplement workshops, book club blogs(a specific book can be discussed every month and the book reviews can be added), Reader’s Advisory blogs, etc. Libworm (www.libworm.com) contains the blogs of various interests. Technocrati (http:/technorati.com/), Blog Pulse (www.blogpulse.com) are some other common library blogs. There is a fast emergence of the search engines to search the blogs. The Google Blog Search (www.blogsearchengine.com), Bloglines (www.bloglines.com) and Ask.com are some of the search engines for retrieving the text from the blogs.

I would like to mention below the top libbloggers on the basis of a survey conducted by OED. These blogs have been ranked using the Google Page Rank, Alexa Rank, Technorati Authority and Bloglines subscribers. (17)
Table 43: List of Libbloggers

<table>
<thead>
<tr>
<th>Rank</th>
<th>Site Web site</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>librarian.net <a href="http://www.librarian.net">www.librarian.net</a></td>
</tr>
<tr>
<td>2</td>
<td>The Shifted Librarian <a href="http://www.theshiftedlibrarian.com">www.theshiftedlibrarian.com</a></td>
</tr>
<tr>
<td>3</td>
<td>LibrarianInBlack <a href="http://librarianinblack.typepad.com">http://librarianinblack.typepad.com</a></td>
</tr>
<tr>
<td>4</td>
<td>Free Range Librarian <a href="http://freerangelibrarian.com/">http://freerangelibrarian.com/</a></td>
</tr>
<tr>
<td>5</td>
<td>Law Librarian Blog <a href="http://lawprofessors.typepad.com/law_librarian_blog/">http://lawprofessors.typepad.com/law_librarian_blog/</a></td>
</tr>
<tr>
<td>6</td>
<td>A Librarian's Guide to Etiquette <a href="http://libetiquette.blogspot.com/">http://libetiquette.blogspot.com/</a></td>
</tr>
<tr>
<td>7</td>
<td>The Travelin’ Librarian <a href="http://wordpress.com/tag/the-travelin-librarian/">http://wordpress.com/tag/the-travelin-librarian/</a></td>
</tr>
<tr>
<td>8</td>
<td>Walt at Random <a href="http://walt.lishost.org/">http://walt.lishost.org/</a></td>
</tr>
<tr>
<td>9</td>
<td>Filipino Librarian <a href="http://filipinolibrarian.blogspot.com/">http://filipinolibrarian.blogspot.com/</a></td>
</tr>
<tr>
<td>10</td>
<td>h20boro lib blog <a href="http://www.waterborolibrary.org/blog.htm">http://www.waterborolibrary.org/blog.htm</a></td>
</tr>
<tr>
<td>11</td>
<td>InfoTangle <a href="http://infotangle.blogsome.com/">http://infotangle.blogsome.com/</a></td>
</tr>
<tr>
<td>12</td>
<td>The Ubiquitous Librarian <a href="http://theubiquitouslibrarian.typepad.com/">http://theubiquitouslibrarian.typepad.com/</a></td>
</tr>
<tr>
<td>13</td>
<td>Confessions of a Science Librarian <a href="http://jdupuis.blogspot.com/">http://jdupuis.blogspot.com/</a></td>
</tr>
<tr>
<td>14</td>
<td>Libraryman <a href="http://www.libraryman.com">http://www.libraryman.com</a></td>
</tr>
<tr>
<td>15</td>
<td>Google Librarian Central <a href="http://librariancentral.blogspot.com/">http://librariancentral.blogspot.com/</a></td>
</tr>
</tbody>
</table>

4.3.1.2 How to start a Library Blog

In the survey among the libraries, it was found that only 34.7 percent of the libraries are using blogs while 65.3 percent are not utilising or perhaps knowing about the Blogging software and their implementation in libraries.
Table 44 : Use of Blogs in Libraries

<table>
<thead>
<tr>
<th>Yes/No</th>
<th>Colleges (N=50)</th>
<th>Institutes (N=45)</th>
<th>Universities (N=22)</th>
<th>Research/ Special (N=30)</th>
<th>Total (N=147)</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>36 (72.0)</td>
<td>28 (62.2)</td>
<td>14 (63.6)</td>
<td>18 (60.0)</td>
<td>96</td>
</tr>
<tr>
<td>Yes</td>
<td>14 (28.0)</td>
<td>17 (37.8)</td>
<td>8 (36.4)</td>
<td>12 (40.0)</td>
<td>51</td>
</tr>
</tbody>
</table>

Chi-Square 1.57 Significant at .664 level Note: Figures in parentheses are the percentage

The methodology given below can be used for setting up a blog. (18)

1. Get familiarized with the Blogging software which are free to download like Blogger (www.blogger.com), Pitas(www.pitas.com), Open Journal (www.openjournal.com), etc.

2. Decide about the purpose of your blog? The coverage of the blog. It must be taken into consideration that your audience are available online in sufficient numbers.

3. The specific characteristics of the end users. The content of the blog must be well thought of. The information about the new services can be provided, the interactive platform can be created through these library blogs or the training and promotion of certain services can be enhanced.

4. Before we consider using a blog, one needs to decide whether we would like to install it on our own webservers, or if we have one, or would like to avail of the services available through a blogging service providers. The service provider makes you fill up the registration form. It also needs to be decided whether the blog is
available for viewing by anyone or only by a specified group of clientele, in which case it has to be protected through a password.

### 4.3.1.3 Features of a Blog

Considering the importance of blogs in libraries and social networks, I give below the features of the blogs:

**Archives:** The Blog should be able to create an Archives. The provision should be available to add content to the archives on a daily, monthly or yearly basis. If the content on the blog is created in abundance then the archiving may have to be done on daily basis, otherwise it could be on the monthly or the yearly basis.

**Categories:** Categorisation of content is important. It should be seen whether the blogging software provides the facility for creating the categories. It will be helpful in classifying the documents on the basis of the subjects and other categories.

**Search:** The search facility is one of the most important features of a blog. The facility for searching the current content and the archives should be available from various approaches.

**Community Tools:** This feature helps in making the content posted by many people. Even the readers can place their comments against the individual blog posts and can also leave their personal profiles.

**Subscription Lists:** Certain blogs give us a facility wherein the daily content digests can get delivered to the mailboxes of the individual readers, otherwise the readers may have to check the individual posts every day.

**Headline Syndication:** The Headline Syndication facilitates including the appearance of the headlines of the content on the websites or even the blogging content should be available through the RSS feeds.
Design: The design templates should be easy to configure and should be changeable. It will provide freedom to the developers to change the design according to their needs and choice.

Quality: The most vital component in running blogs in libraries is the need for a talented writer who writes for the blogs. It is considered that a good writer who can write flawlessly about the issue can make a difference. Also, the quality of the content is quite essential for running a successful blog.

4.3.1.4 Importance of Blogs in Libraries

The Blog is a fast emerging social networking tool. It has innumerable applications in the libraries. I am listing below some of the major contributions of Blogs have been making in the libraries in various spheres:

1. Marketing of Library Services

   The library services require continuous marketing. Whether it is the introduction of new services or the announcement of library extension programmes, the blogs come to the rescue of library professionals since they are able to reach out to a large number of potential users.

2. The emails can be integrated with the blogs. Information about the latest services and products can be provided to users through their emails. The users can also visit the blogs and view the content of interest to them.

3. There is a need to provide some special features on blogs so that the users feel interested in visiting the blogs. The reference service in the form of FAQs, expert advise, etc can be given through the blogs.

4. For running effective blogs in libraries, it will be in the fitness of things if information about new arrivals is provided to users through proper categorization. Also, the information about various web resources could also be provided to users.
5. Online book discussion forums could also be made available through blogs. Every week/month, a particular book could be chosen for discussion and various views highlighted for wider dissemination.

4.3.2 RSS

Libraries and the librarians have always been working to ensure that the right information reaches to the right user at the right time. Ranganathan’s 3rd Law of Library Science highlights that “Every reader its book”. The changing information landscape has also transformed this law though the ultimate goal remains intact. The WWW is considered as the most democratised process wherein a lot much of content gets published by anyone and it is an arduous task for the end user to keep pace with the information explosion. The Internet usage statistics of March 2008 of Internet World Stats shows that Internet is more widely used in Asia with 37.6 percent usage, followed by 27.7 percent in Europe and 17.5 percent in North America. Though North America has the highest penetration rate of 73.1 percent followed by Oceania/Australia with 57 percent and Europe with 47.7 percent, Asia has only 14 percent population penetration. (19) The library users and researchers, in this scenario are concerned about devising mechanisms to filter out subject information so that they get precise and relevant information required by them. In the past we have seen SDI services, user profiling, etc being done in the libraries which were performed in conventional ways in order to ensure that each specific user got relevant information regularly.

The survey results have shown that only 17.7 percent of the libraries are using the RSS tool in their libraries while 82.3 are not utilising the social software. Due to lack of training and knowledge, the LIS professionals are not able to use these tools in their libraries.
Table 45: Use of RSS in Libraries

<table>
<thead>
<tr>
<th>Yes/No</th>
<th>Colleges (N=50)</th>
<th>Institutes (N=45)</th>
<th>Universities (N=22)</th>
<th>Research/ Special (N=30)</th>
<th>Total (N=147)</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>44 (88.0)</td>
<td>38 (84.4)</td>
<td>18 (81.8)</td>
<td>21 (70.0)</td>
<td>121</td>
</tr>
<tr>
<td>Yes</td>
<td>6 (12.0)</td>
<td>7 (15.6)</td>
<td>4 (18.2)</td>
<td>9 (30.0)</td>
<td>26</td>
</tr>
</tbody>
</table>

Chi-Square 4.378 Significant at .223 level  Note: Figures in parentheses are the percentage

4.3.2.1 Importance of RSS to Libraries

The latest technology which has come to the rescue of the endless users and the library professionals is the RSS (Really Simple Syndication) which automates the processes of bringing together the relevant information. RSS is based on XML technology and it disintegrates the content on the website into blocks of information and extracts information from the individual websites as desired. Its looks can also get modified, if found necessary. It is of great help and relevance to the information seekers since they can simply subscribe to the Website’s RSS feed. Whenever a new content gets added to the website, the RSS makes it possible to access this information through an aggregator. The RSS are a new development and can be tracked down to 1999 when RSS .90 was developed by Netscape. It was used to gather the content from various web-services for the portal development. The company Userland used it for blogs and RSS development team developed RSS 1.0 and RSS 2.0 which are used to syndicate websites, blogs and other e-contents. (20) Atom feeds is yet another tool used for syndicating the content from blogs and wikis.

When we discuss about the applications of RSS in Libraries, we take the perspec-
tive of being a consumer of RSS. It is utilized for content filtration, easy discovery and delivery. A number of web publishing organizations are pushing their content to the users through the RSS feed. This technology enables the accessibility of content from various websites and putting them together onto one page. A number of international newspapers are now accessible through the RSS feed like CNN (www.cnn.com/services/rss), Washington Post (www.washingtonpost.com/hp-dyn/rss/index.html), etc.

4.3.2.2 RSS Aggregators

We need to have aggregators in order to display the content from the RSS feed since it locks the presentation format. The aggregators are the software wherein all the feeds get stored and they are available for viewing under one site. A number of aggregators are available on the web. The following table shows their merits and demerits (21)

Table 46: List of Aggregators

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Type of Aggregator</th>
<th>Advantages</th>
<th>Disadvantages</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Desktop Aggregator</td>
<td>1. Downloaded on desktop PC</td>
<td>1. It lacks portability.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. Available with email application like Mozilla, Thunderbird, Microsoft</td>
<td>2. If hard disk crashes, all feeds will be lost.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>outlook, BlogBridge and Newscrawlers.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>3. Safety and privacy is maintained.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>4. Many aggregators have the feature to read the feeds offline.</td>
<td></td>
</tr>
<tr>
<td>2. Web-based Aggregators</td>
<td>5. It will work even though the aggregator company stops functioning.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>--------------------------</td>
<td>---------------------------------------------------------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1. Accessible on the web through any browser.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Bloglines and Rojo are the popular ones.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2. They are portable.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3. Easy to set up.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1. No provision for offline reading.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2. Since on the web, if the company stops functioning, we won't be able to view it.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

In this case the consumer must ensure that the RSS feeds can get exported out from the aggregators in OPML (Outline Processor Markup Language) so that it can be imported into any other aggregator. It is quite important for knowledge sharing activities.

4.3.2.3 Successful Implementation of RSS in Libraries

The RSS has a great potential among the libraries and information centres. A large number of libraries have now got their webpages online containing information about new arrivals, upcoming events, news, etc. It will be in the fitness of things if the content of the websites gets accessed through RSS feeds. A library user located in any part and utilizing any aggregate may like to get his library related information through this technology mode only. He will be saving a lot of time and energy in visiting the individual library webpages in order to hunt for the information in which he is interested. The WinnetkaNorthfield Public Library in Illinois has got several feeds for news, book clubs, etc (www.wpid.alibrary.com/rsspage.asp). The library users can subscribe to specific feeds that interest them and they can get specific information without visiting the specific websites. The libraries can also utilize RSS to link their blogs automatically to their website with the help of tools like Feed2JS (feed2js.org) or RSS to Java Script (www.rss-to-javascript).
The University of Alberta (www.library.ualberta.ca/newbooks) allows the users to see the latest arrivals by browsing through its RSS feeds. Some of the libraries are also using the RSS feeds for catalog searches. Once a user performs a catalog search he can subscribe to the RSS feed and link it up to its aggregator. The RSS feed can also be used to allow the users to get notified about the library account i.e., overdue books, books available for issue, etc. It is also worth mentioning that the specialized parts covering contents on a specific subject can also be made available through RSS feeds. A number of publishers of journals have also started providing the table of contents and abstract through RSS feeds. The individuals can subscribe to the RSS feeds for the journals they are interested in to receive information in their aggregators. Ebsco databases through RSS feeds are available for browsing.

4.3.2.4 Considerations for Implementing RSS in Libraries:

In the libraries, the implementation of RSS is a Herculean task. The professionals in the libraries have to be adequately trained to know about the efficacies for implementing the RSS feeds. As a matter of fact, majority of the Blogs automatically create the RSS feeds once the content are posted to the blogs. (22). Also there are a number of inexpensive web-based feed-creation services which can generate an RSS feed of any page of a website. If we want to add multiple feeds to our website, we need to ensure that the blogging platform supports this feature. Also, a majority of the blogging services allow users to create the RSS feeds and others may support Atom, which is quite similar to RSS only. LiveJournal and Typepad supports both Atom and RSS feeds whereas the Blogger creates feeds only in the Atom format and the WordPress.com creates the feeds in the RSS format only. Moreover, there is a growing demand for using the Content Management Systems in the institutions since a large number of articles and other news related items are getting published. Drupal (www.drupal.org) and Plone (www.plone.org) are the two free open source Content Management Systems. The RSS support should be available on
these content management systems so that the RSS feeds are available to the users and they can have access to the content. The FeedYes (www.feedyes.com) and PonyFish (www.ponyfish.com) are two options available for creating the RSS feeds against low maintenance cost. If we are wanting to create a feed which consists of articles and links from various different website, the tools like LinkRSS (www.linkrss.com), Publi.sh(http://publi.sh), HitRSS (www.hitrss.com) and FeedPublish.com (www.feedpublish.com) can be used. Herein, the information needs to get filled in manually whenever we wish to add a new item to a feed. The libraries can also think of hosting the feed creation software at their own servers rather than utilizing the services hosted by the other vendors. The applications like Alnera Feed workshop (www.alnera.com), ExtraLabs Feed Editor (www.extralabs.net), FeedForAll (www.feedforall.com), and Jitbit RSS feed creator(www.jitbit.com/rss-feed-creator.aspx) can be utilized. The Mozilla Firefox's Live Bookmarks feature also enables the user to read the news feeds.

For RSS, one needs to subscribe to the site's feed and then add it to the RSS reader. The RSS reader software automatically updates it and gets spooled to the reader. I would like to mention that a number of publishers now including OUP provide RSS feeds for the table of contents for each and every edition of their journal. An interesting development is the inclusion of RSS support by the software vendors including Dynix, Sirsi, and Innovative for their catalogues. As a result, the users are able to get the new arrival details of the books through the RSS feeds the moment a book gets catalogued in the libraries. In this case RSS feed gets generated at the catalogue entry level itself. The Australian National University Library is providing nine feeds covering their collections on Asia, Science, Social science and also a separate feed for the journal titles. (http://anulib.anu.edu.au/epubs/innopacnewbooksrss.html)

4.3.3 Wikis

"A wiki is a collection of web pages designed to enable anyone who accesses it to
contribute or modify content, using a simplified markup language. Wikis are often used to create collaborative websites and to power community websites. For example, the collaborative encyclopedia Wikipedia is one of the best known wikis. Wikis are used in businesses to provide affordable and effective intranets and for Knowledge Management. Ward Cunningham, developer of the first wiki software, WikiWikiWeb, in 1994 originally described it as “the simplest online database that could possibly work” (23).

Portland Pattern Repository (c2.com/cgi/wiki) is the first Wiki developed collaboratively by the community of software developers. Wiki means “quick” in Hawaiian and is meant for easy and fast updation of websites collaboratively. Wikis are the most democratized tools wherein content can be created, added by anyone and yet no one person owns the content. Some wikis are open to everyone like Wikipedia (www.wikipedia.org) while some wikis are open to specific group of professionals like Librarians, engineers, etc. The library professionals must be conversant with setting up of Wikis which are usually developed on open source software. The most trivial problem in adopting Wikis is the openness. There is no authenticity of information since anyone and everyone can play a participatory role in content creation. There are issues regarding IPR concerning the ownership of the content of the wikis. If these Wikis are created collaboratively under GNU general public license or the Creative Commons License, the IPR issues can be handled to some extent.

4.3.3.1 Applications of Wikis in Libraries

The libraries can use Wikis in making the community information available through the appropriate categorization and linking of relevant information sites. A community Wiki will be of great relevance to the general masses. The subject guide Wikis is yet another portal which can be developed collaboratively by the library and its users. A Wiki is a great tool for subject guides. The libraries can acts as moderators and approve the added subject web links. There will be an enormous knowledge sharing activity and the faculty who are
subject experts can contribute a lot to the subject guide wikis. The BizWiki (www.library.onion.edu/subjects/bizwiki) and SJCPL’s Subject Guides (http://sjcpl.lib.in.us/subjectguides/index.php/Main_Page) are two subject guides wikis developed using media Wikis. Also, the privilege of adding content to the catalogue card has been provided. OCLC has given the freedom to its users to add reviews, table of contents and notes to its records in World Cat. The Wikis can be easily installed and used by the library and information science professionals who may not have much experience in website designing and programming. A wiki is an excellent repository for collective knowledge. The Wikis can serve as knowledge repositories. They can be developed to tap the tacit knowledge also. While deciding upon the setting up of the Wikis in the Libraries, it needs to be finalized whether the free wikis will be hosted on the institutional webservers or the pay model for the wikis to get hosted somewhere else. MediaWiki is an open source wiki (www.mediawiki.org).

The survey results have indicated that 40.1 percent of the respondents are using Wikis. It is important for the libraries to get engaged with the creation of subject specific Wikis in their Institutions. This will eventually lead to the knowledge sharing among the users.

Table 47: Use of Wikis in Libraries

<table>
<thead>
<tr>
<th>Yes/No</th>
<th>Colleges (N=50)</th>
<th>Institutes (N=45)</th>
<th>Universities (N=22)</th>
<th>Research/Special (N=30)</th>
<th>Total (N=147)</th>
</tr>
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<td>19 (63.3)</td>
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<tr>
<td>Yes</td>
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<td>19 (42.2)</td>
<td>9 (40.9)</td>
<td>11 (36.7)</td>
<td>59 (40.1)</td>
</tr>
</tbody>
</table>

Chi-Square .237 Significant at .971 level Note: Figures in parentheses are the percentage
4.3.4 Online Communities

The role of libraries to enhance social interaction and to provide a platform for exchange of ideas among its users have been known since time immemorial. The Libraries have always been engaged in creating a social hub/social place wherein the users of different age groups, caste and creed can mingle with each other and utilize it for promoting the communityhood. The Reference Librarians have been performing the task of meeting and answering the generic to specific queries of the users. The Book Discussion Programmes holds together the experts in a specialised topic to sit together and discuss. The libraries have also been running special services like workshops, etc for children, elderly persons or specialized services for the disadvantaged group of people. Instead of making with physical communities. However, with the advent of ICT, the libraries are now in the process of building up online communities in the online environment. In simple terms, the online community refers to a group of people who gather online for a specific purpose or with particular common interest.

Online communities can play a pivotal role in knowledge sharing. It is through the online communities that the tacit knowledge can be tapped and consolidated. The four primary types of online communities include: communities of interest, sustaining communities, communities of action and local communities. The community of interest includes persons who may like to discuss similar issues, to work on collaborative projects, professional communities, etc. These people may or may not know each other. In case of sustaining community, the people they are already familiar with each other e.g. alumni of a college, etc. Another kind of a community is the community of action. Herein the people come together to develop a special software module, etc. Lastly the local communities that are made up of the people who may stay nearer and encounter similar problems. (24) The participants are more likely to interact face to face since they stay closer. The knowledge sharing which takes place through online communities serve a great deal in problem
solving. According to Pew Internet and American Life Report 84 percent of the US Internet users belong to an online community. (25) A number of tools including blogs, wikis, forums, email lists and websites are used for building up online communities. The forummatrix.org could be consulted to choose the specific tools.

Web Junction is an online community for Libraries. It was developed by OCLC in 2003 along with Colorado State Library, Benton Foundation and TechSoup (26). It gives ample opportunities to the libraries to interact with their fellow professional colleagues and to discuss the matter concerning ways to provide better and efficient services to the library users. It provides online learning platform for the libraries and their staff.

4.4 Social Networking and its relevance in Libraries

Social Networking refers to connecting and sharing information with other like minded people on the web. Libraries and the librarians have always worked in the social space. Myspace(www.myspace.com), Facebook (www.facebook.com), Ning (www.ning.com) are the most popular social networking tools. It is estimated that around 61 million people are registered as Myspace users. Dodgeball (www.dodgeball.com) is a mobile social software which provides information about the location and time of the individual also. It is quite important for the Libraries to felt their presence wherein their users are located.

From the survey, it is clearly reflected that the social networking tools are yet to get implemented in the libraries. Only 19.7 percent of the respondents have indicated the use of social networking tools in their libraries.

Myspace can be utilized for creating the profiles of the libraries. The blog feature can also be utilized. It also has an inbuilt instant messanging client in the user’s profile. The Denver Public Library has integrated their myspace account with Evolver (http://www.myspace.com/denver_evolver). Emory University Library, Yale University Science
Library and many others are utilising these tools. Libraries can create value in myspace and facebook by providing space for the users to give feedback, to provide news, information, etc. There are social network tools for business purposes also like Linkedin (www.linkedin.com) and Ryze (www.ryze.com)

<table>
<thead>
<tr>
<th>Yes/No</th>
<th>Colleges (N=50)</th>
<th>Institutes (N=45)</th>
<th>Universities (N=22)</th>
<th>Research/ Special (N=30)</th>
<th>Total (N=147)</th>
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<td>118 (80.3)</td>
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<td>11 (24.4)</td>
<td>1 (4.5)</td>
<td>6 (20.0)</td>
<td>29 (19.7)</td>
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</tbody>
</table>

Chi-Square 3.99 Significant at .261 level

Note: Figures in parentheses are the percentage

4.4.1 Social Bookmarking

“The Web is growing at an exponential rate. There are currently in excess of 20 billion Web documents in Google alone, increasing at a rate of roughly 7 million per day. Every day, Web users utilise the major search engines to launch over 400 million queries for products, services and information” (27) As more and more content is getting available online, it is becoming increasingly difficult for the search engines to index it. As a result substantial part of the web still remains hidden from the online information seekers. Since the search engines use automated web crawlers and various indexing algorithms, a number of times the users find it difficult to get the information of their choice. It is found that since the appropriate keywords for the concepts are not being provided. There is a growing concept of providing the keywords to the content by the people themselves and
also they express their opinions about the products, services, etc. The recommendation systems and social bookmarking assists the users in better decision making. They are of great value. While the reputation systems only collect and display the users' ratings and their online reviews, the recommendation systems assess the user's feedback and make recommendations to the users in the knowledge sharing environment. These recommendations can prove to be of high value, especially to the faculties of the Institutions that recommend particular books, online reviews of the new books and new services to students. The librarians can also contribute by putting their content on the systems.

Collaborative filtering mechanism has a great potential for academic information systems. It gathers opinions and recommendations of the people and use them as recommendation tools. The website like amazon.com tracks the purchase records of each and every user. It also stores the book reviews which act as recommendation tools. Del.icio.us is the first social bookmarking system on the web wherein users can store the bookmarks online and can also share these bookmarks with others. In this kind of social bookmarking system, users can assign tags or keywords to the bookmarks containing the details of their favourite websites and also a brief description of that link can be provided. A single tag/

<table>
<thead>
<tr>
<th>Yes/No</th>
<th>Colleges (N=50)</th>
<th>Institutes (N=45)</th>
<th>Universities (N=22)</th>
<th>Research/ Special (N=30)</th>
<th>Total (N=147)</th>
</tr>
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<td>40 (88.9)</td>
<td>20 (90.9)</td>
<td>22 (73.3)</td>
<td>120 (81.6)</td>
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<td>Yes</td>
<td>12 (24.0)</td>
<td>5 (11.1)</td>
<td>2 (9.1)</td>
<td>8 (26.7)</td>
<td>27 (18.4)</td>
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</table>

Chi-Square 5.27 Significant at .152 level Note: Figures in parentheses are the percentage
multiple tags can be used to tap a particular website. “A bookmarklet” is a tool which helps the users to bookmark a particular site when a particular link is bookmarked, one can also see that who else has bookmarked this site and in turn can also view the bookmarks of them. In such a manner, a social bookmarking systems can eventually lead to the discovery of useful resources. In the knowledge era, the people working on specialized projects or areas can pool together their bookmarks and get benefited.

The social bookmarking sites like Connotea (www.connotea.org) and CiteULike (www.citeulike.org) are meant for academicians and scientists to share their information. There is also now a growing trend of tagging the photos on Flickr (www.flickr.com). Even the blogs are being tagged so that they can be easily retrieved. LibraryThing.com is an online service which is provided to people to catalog their books. It is advised that a user can create a tag related to an object, activity, idea, category, person, location, etc. The mechanism of tagging the web by the people is Folksonomy wherein the users assign the words/tags from the content whereas taxonomies are made by organizations using controlled vocabulary. The sites that use tagging also usually use RSS feeds for individual bookmarks. Technocrati(www.technocrati.com) is a blog search engine. There have been debates on using Taxonomies over Folksonomies. In Folksonomies the same concept could be represented by various tags. Also the polysemes, the same words which can mean differently will lead to clutter since the tag may not be able to define it clearly. The most trivial issue is how the user-centered metadata, created by the users will help the end users in discovering information. Infact some of the social bookmark systems search the fulltext of each tagged items, while majority of them only access the tags. Collaborative filtering is an excellent procedure. Furl (www.furl.net) is a social bookmark manager.

Since Libraries are always having the borrowers records, they can create the recommendation systems. Also they can invite the users to provide their reviews/opinions about books which get loaned out to them. This will enable the knowledge sharing among
the users. In the era of Web 2.0, the librarians can also recommend social software that provide advisory services e.g. LibraryThing or WhatShouldIReadNext (www.whatshouldireadnext.com). The social bookmarking tools can also be utilized by the libraries in informing their users about the specific websites which may be of interest to them. I would like to mention that IBM has also created an Institutional Bookmarking System called Dogear. The libraries can also use social bookmarking sites like www.citeulike.com for bookmarking scholarly articles.

4.4.2 Online Reference Services

The libraries and the librarians have a long tradition of providing reference services. The libraries have been providing reference services to their users in the libraries at their own desks, through written correspondence, telephone channels, etc. A number of libraries had started providing the reference services through email from the 1990s.

The IM (Internet Messaging) is now a most popular communication tool. There are a number of commercial reference software available which have the web based chat interface, co-browsing and “push” website features. Also, a number of libraries can join together to create a cooperative reference desk. They may hire the professionals to answer the queries from the users during the closed hours of the library. These virtual reference desks can be available on 24/7 basis (www.askusnow.info). It could be a national reference cooperative. At present a number of compatibility issues including browser type, version problems, security software packages, the freezing of the end users’s browser while co-browsing, the inability of the users to view the pages seen by the libraries, etc do exist. Instant Messaging (IM) is gaining wider popularity among the information users. The American Online (AOL) was the first to introduce it in 1997. The MSN Messenger, Yahoo Messenger, Google Talk are some of the major IM services. The IM services are now being provided by all kinds of libraries. Meebo (www.meebo.com) has become one of the most popular IM reference services among the librarians. It is a web-
Based multiprotocol IM client. There is no need to download the software for use. MeeboMe is a recently introduced customizable chat interface which can get integrated with the library webpage. The libraries providing IM reference services. Some of the major free multi-protocol IM clients includes Gaim (gaim.sourceforge.net), Trillian (www.ceruleanstudios.com), Meebo (www.meebo.com) and fire (fire.sourceforge.net).

It is found that only 29.9 percent of the respondents are using the IMS in the Libraries for providing the reference queries or some other kind of support. There is a greater need for integrating it with the library software applications used in the libraries so that the reminders for the return of the books, notification about important programmes, new arrivals, etc can be informed to the users effectively.

**Table 50: Use of Instant Messenger Services in Libraries**

<table>
<thead>
<tr>
<th>Yes/No</th>
<th>Colleges (N=50)</th>
<th>Institutes (N=45)</th>
<th>Universities (N=22)</th>
<th>Research/Special (N=30)</th>
<th>Total (N=147)</th>
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<tbody>
<tr>
<td><strong>No</strong></td>
<td>39 (78.0)</td>
<td>29 (64.4)</td>
<td>15 (68.2)</td>
<td>20 (66.7)</td>
<td>103 (70.1)</td>
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<tr>
<td><strong>Yes</strong></td>
<td>11 (22.0)</td>
<td>16 (35.6)</td>
<td>7 (31.8)</td>
<td>10 (33.3)</td>
<td>44 (29.9)</td>
</tr>
</tbody>
</table>

Chi-Square 2.38 Significant at .497 level

Note: Figures in parentheses are the percentage

**4.4.3 Voice over Internet Protocol (VoIP)**

The VoIP completely humanized the enduser-librarian interaction wherein the end user can speak to the librarian. This is also helpful to those who are visually impaired. Skype (www.skype.com) and Google Talk(www.google.com/talk) are some of the VoIP
services. Also a toll free number 1800 can be made available for rendering the reference service to users. The MacQuarie University and Murdoch University Library is in Australia are using VoIP. The Infoeyes (www.infoeyes.org) is an initiative which uses iVocalise software (www.ivocalise.com) to provide reference services to those who have visual deformities. These tools can also be utilised in the libraries for providing the training, orientation programmes to the users.

### Table 51: Use of VOIP (Voice over Internet Protocol)

<table>
<thead>
<tr>
<th>Yes/No</th>
<th>Colleges (N=50)</th>
<th>Institutes (N=45)</th>
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<th>Research/ Special (N=30)</th>
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</thead>
<tbody>
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<td>27 (90.0)</td>
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</tr>
<tr>
<td>Yes</td>
<td>7 (14.0)</td>
<td>7 (15.6)</td>
<td>4 (18.2)</td>
<td>3 (10.0)</td>
<td>21 (14.3)</td>
</tr>
</tbody>
</table>

Chi-Square .785 Significant at .853 level

Note: Figures in parentheses are the percentage

### 4.4.4 Media Sharing Sites

The Media Sharing Sites like YouTube (www.youtube.com) and Flickr (www.flickr.com) are the most popular tools. These tools can be utilised for broadcasting purposes e.g. the library book discussion programmes, the special training programmes, special lectures by the guest faculty, etc. can be broadcasted on the network among the Institutes using these tools. These tools can also be of immense use in knowledge sharing especially in distributing the content involving “how to do” facet.
Table 52: Use of Media Sharing Sites

<table>
<thead>
<tr>
<th>Yes/No</th>
<th>Colleges (N=50)</th>
<th>Institutes (N=45)</th>
<th>Universities (N=22)</th>
<th>Research/Special (N=30)</th>
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<tr>
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<td>39 (78.0)</td>
<td>35 (77.8)</td>
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<td>9 (30.0)</td>
<td>32 (21.8)</td>
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</table>

Chi-Square 3.27 Significant at .350 level

Note: Figures in parentheses are the percentage

4.4.5 The Mobile Technology in Libraries

The mobile revolution is one of the most sophisticated and reliable technologies that has encompassed the seamless flow of information and made it available and accessible anytime and anywhere. It has altogether reduced the existence of time and distance. It is estimated that there are 200 million mobile users in India. (28) Since Libraries have always been concerned with the timely delivery of information to its users, now with the integration of internet enabled mobile devices like cell phone, e-book readers, PDA (Personal Document Assistants), handheld gaming devices with the library services the effect has become far reaching. The technologies are now existing wherein users can directly upload the content from their mobile devices. Moblogging is a blogging from the mobile devices. NokiaLifeBlog and Textamerica provides moblogging services. There is a greater need for designing library websites with device independence provision. The libraries that provides information through RSS feeds can motivate their handheld users to subscribe these feeds through aggregators designed for mobile devices. www.feedalot.com and newsmob.com are such aggregators. There is also a growing trend of providing online
database access and journal articles accessibility through the handheld devices. The Na­tional Library of Medicine provides freely accessible PubMed through handheld ovid@hand helps the medical professionals to browse the contents of the journals through PDAs. The Lexis/Nexis databases are also now accessible through the PDAs. The e-books also can be downloaded onto the handheld devices. According to Gartner Research organisation by 2009 there will be 2.9 billion cell phone which will be used regularly.

4.4.6 Podcasting

The podcasting is one of the most new social software technology which is utilised to connect people. It is made up of two words ipod+broadcasting ie. The audio broadcasts which can be played in MP3 player. The “Podcast” was termed as the word of 2005 by New Oxford American Dictionary. Companies like CNN, BBC and New York Times have been podcasting. This can eventually lead to knowledge sharing. The online tutorials of the expert faculties can be podcasted and the students can subscribe to it and get benefited.

4.4.7 Screencasting and Vodcasting

Through Vodcasting the Videocontent (both visual and audio data) gets distributed to the users and has a great impact on the learning capabilities. The screen casting is relatively a new technology. It facilitates the video recording of all actions taking place on a computer screen. It records each and every audio/video image. Camtasia, ViewletBuilder and Adobe Captivate are some of the screen-casting software.

4.5 Conclusion

I have discussed the various social networking tools and their importance in libraries for creating synergies between users and libraries. These tools facilitate and enhance the level of participation of the users in the library programmes and services. I conclude that
1. The social software are the enabling tools for anytime anywhere accessibility of the resources. These software filter out the relevant information and save the time of the users.

2. The social software help in bridging the gap between the libraries and their users. The Librarians needs to be there where our library users are in order to provide 24/7 information support to them.

3. The social software like Blogs, Wikis, Online Communities contribute to the knowledge sharing activities. The Librarians should contribute to them by bringing this technology into libraries and for the use among their users.

4. There is a greater need for training the manpower in the libraries for utilising various social networking tools.

5. The staff must be motivated to use the new technology. They should be involved with the planning and implementation process.

6. The needs assessment of the library users should be done through surveys, informal discussions, etc. It is worth mentioning that the librarians should consider the needs of not only the regular library users but also those who seldom utilise the library services and also the category of users who do not utilise the library services at all.

7. In public libraries, these tools can be utilized for creating podcasts, screencasts and videos of stories and it will help in inculcating the habit of reading among the kids.

8. In order to promote creativity, public libraries can also establish the podcasting station or video making stations and the young children can create their content.

9. With the help of Blogs and Wikis, libraries can initiate the Advisory and Recom-
mendation systems for the faculty and the users wherein the best books or information resources can be highlighted.

10. Libraries together could create collaborative blogs wherein the know-how about particular topics can be provided.

11. The social software can be used for providing reference services to the users through the Internet Messanging services or even through the SMS.

12. The Wikis and Social bookmarking systems should be used in the libraries for creating the subject content, they are searchable, can get categorized and easy to use.

13. The tools like VoIP, Co-Browsing, etc can be greatly utilized for teaching and training purposes. The libraries can conduct special programmes online using this technology.

14. The RSS technology should be used in the libraries. The librarians should provide the contents page of the journals, newspapers, etc through the RSS feed so that users are able to get them through the aggregators wherever they are.

15. There is a greater need for single window integration wherein different content resources from various sources can be made available through a single access point.

16. The social software can be utilized to a great extent in the medical libraries. It will contribute to the faster decision making processes. The websites of the medical institutions should be readily accessible through the handheld devices. Also the reference books, e-materials should be made available through the PDAs. PubMed offers RSS feeds to users.
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http://www.webjunction.org
