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Web 2.0 Tools in Enhancing the Best Practices of User Services in Academic Libraries: A Comparative Study of Central University Libraries in Assam State

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Abstract Applications of Web 2.0 tools are playing a significant role to enhance the best practices of library activities as well as on-line digital reference services. The tools are becoming more popular among avid users of this modern era as they are fast and effective tools for disseminating information. Use of these tools in a library will fascinate the users and disseminate information in a more attractive and agreeable medium. This paper is aimed at presenting the results of a study conducted in the central universities in Assam State on Web 2.0 applications among LIS professionals. During the survey, structured questionnaires were distributed randomly among LIS professionals and the responses were received with a rate of eighty eight percent. The comparative study revealed the respondents' awareness and rate of knowledge about the Web 2.0 tools in the central university libraries.

Keywords *Web 2.0; LIS Professionals; Best Practices; Central University Libraries; Assam*

1. Introduction

Web 2.0 tools are dominating the personal and professional lives of millions of users. The popularity of the tools draws the attention of all the people and it has changed the ways that libraries, museums, archives and other cultural heritage organizations work. As librarianship changes and adapts to the needs of the internet generation, use of these tools has become an essential feature in the work areas of the professionals [4].

Web 2.0 tools and plans have provided innovative practices to the normal way of working in the library profession. Web 2.0 facilities presently offered by libraries include Blogs, Wikis, RSS, Podcasts, Video

Casts, Instant Messaging, SNS and Twitter, etc [4]. The use of Web 2.0 tools and applications brought substantive change in library collection and services. The library collection is changed, becoming more interactive and fully accessible. The library's services are changed, focusing more on facilitating information dissemination and the information retrieval rather than providing controlled access to it [2].

Some important web 2.0 applications useful for libraries are mentioned below.

- Blogs are websites. They can be used to promote library services providing links to recommended sources, listing book reviews, promoting entertainment, providing news for LIS professionals, initiating book discussions, facilitating communication amongst library users and encouraging the development of a community.
- SNSs (social networking services) can encourage a variety of library services such as library announcements, posting news, updating resources, communicating with patrons, providing reference service, collaborating on projects, for customer service, sending alerts about requested materials, as a marketing tool, as a way to share information about professional development opportunities, for cataloging, for internal updates, and for networking with other staff, libraries, and library-relevant organizations.
- RSS feed through library can offer a variety of services such as workshops/classes, to market ideas, activities, event announcement, new acquisitions, exhibitions, to share library news and content, as well as to gather and distribute related information from other web sources. LIS professionals can use RSS feeds for Current Awareness Service and SDI (Selective Dissemination of Information) services. This resembles the traditional library services namely CAS and SDI.
- Wikis can be used for internal communications among staff, to create a knowledge base, to facilitate committee work, for instructional purposes in the classroom, to teach information literacy to students, in project management and strategic planning also.
- Instant messaging (IM) is similar to e-mail that can exchange text messages and it is a more immediate and informal way of communication system. One of the best examples of instant messaging service is used in 'chat reference' services, where users can interact with librarians.
- Podcasts can be facilitated through a variety of library services like provision of weekly updates new arrival book, lectures, tutorials, events, conferences, in information literacy instruction, library marketing, library instruction, keeping patrons up to date with library information, library guides and tours. Libraries can distribute iPods to their users to intensify their podcasting services and resources.
- In library environment, Vodcast's are playing an important role in information dissemination. It displays some of its lectures (through You Tube) using Web 2.0 technologies. Several libraries around the world are using You Tube for information dissemination.

Libraries are increasingly enhancing their websites by introducing Web 2.0 features in providing the users' services. The amalgamation of Web 2.0 features has endorsed the website to be more flexible and adaptable. With the adoption of Web 2.0 tools, LIS professionals effectively work on outreach activities and promotion. LIS professionals can get first-hand information about the users through interacting with them. They can then understand the behaviour of the users and design services to meet their needs [12].

There are only two central universities in Assam. They are, Tezpur University and Assam University situated at Brahmaputra Valley and Barak Valley regions of Assam respectively to cater the academic needs of the people. The Central Library of Assam University known as Rabindra library was established in the year 1994 as a central facility for meeting the information requirements of the academic community of the university. It possesses more than one lakh books and it is the largest library in the Barak Valley region of Assam along with other valuable resources [3].

The Central Library of Tezpur University was established in 1994 along with the establishment of the University. The library holds more than sixty five thousand volumes of print documents and subscribed to more than six hundred and thirty current journals.

Both the libraries are member of the UGC-Infonet Consortia of INFLIBNET and getting access facility to around 9081 (including 525 on perpetual basis) e-journals and seven databases. Both the libraries get online access of 926 e-journals through DelCon Consortium. Library users can access books database, these database, journal database, e-journals and other e-resources from any terminal within the university campus [9].

2. Statement of the Problem

Web 2.0 tools are not a new concept for libraries, and now-a-days, these tools have come up with innovative features and flexibilities. Many studies carried out on Web 2.0 tools in library services and activities in order to get benefits of these miraculous tools and explore the library services on virtual environment on web. No study was undertaken to understand the awareness and use of Web 2.0 technologies as the best practices among LIS Professionals in the central university libraries of Assam. Keeping the emerging use of Web 2.0 applications all over the world in view, this study was aimed at finding the use of Web 2.0 applications for enhancing the best practice in the central libraries of Assam.

3. Objectives of the Study

The main objective of the study is to determine LIS professional's awareness on Web 2.0 tools and its usage in the two central university libraries of Assam. The other objectives of the study are:

1) To assess the use of Web 2.0 tools by LIS professionals
2) To determine the sources of learning the Web 2.0 tools
3) To understand the impediments to use Web 2.0 tools
4) To determine the purposes and different challenges faced in using Web 2.0 tools
5) To find out training needs on Web 2.0 tools
6) To assess the type of training and tools of Web 2.0

4. Research Methodology

The present study has been undertaken in two central universities in Assam such as Assam University, Silchar and Tezpur University, Tezpur. Survey method was adopted to conduct the study and a structured questionnaire was designed to collect information from the LIS professionals. The structured questionnaire was set and distributed among LIS professionals of both the university libraries. Fifteen questionnaires were distributed to Assam University LIS Professionals. Out of fifteen questionnaires, fourteen professionals were responded that means response rate was ninety three percent of LIS Professionals in Assam University, Silchar. Ten questionnaires were circulated to Tezpur University LIS Professionals. Out of ten, eight questionnaires were received from respondents i.e.; eighty percent. On the whole twenty two responses were received from total twenty five questionnaires circulated and the response rate of both the universities was eighty eight percent. Functioning of the university libraries were personally observed and interviews with the respondents were also taken as and when became necessary.

5. Literature Review

Numerous studies on awareness and usage of Web 2.0 tools among various professionals have been conducted and literatures on the area are available in print and non-print form. A few of the earlier studies found on Web 2.0 applications among LIS professionals are summarized below.

- Abidinet et al. [1] in their studies indicated that most of the respondents were using Web 2.0 services in their daily lives. However, users did not use this service provided by the public libraries, although all 14 public libraries had adopted at least two or more Web 2.0 services, especially SNSs. In fact, the adoption of Web 2.0 services was at an initial stage of its development and thus, most of the Malaysian libraries were in the process of enhancing its progress for the betterment of the services. Conversely, the study also found that there were no definite policies on the adoption of these services.

- Baroet, al. [4] conducted a survey on awareness and use of web 2.0 tools by librarians in University Libraries in Nigeria. The survey report showed that the librarians were more familiar with SNSs, IMs, and media sharing sites, blogs and wikis. Web 2.0 tools like Flickr, RSS feeds, podcast and social bookmarking were among the least used. The study revealed that librarians used Web 2.0 tools mostly for reference services online, library news/events, training resources, and image and video sharing. Lack of facilities such as computers with internet access, lack of skills, and lack of time were indicated as some of the barriers in the use of Web 2.0 tools by librarians in university libraries in Nigeria.

- Mansor and Idris [7] conducted a survey on perceptions, awareness and acceptance of Library 2.0 applications among librarians at the international Islamic University Malaysia. The findings showed that there was high awareness among the librarians with Library 2.0 applications. The findings also indicated that there was high level of computer expertise among the respondents in terms of web browsers and search engines, in addition to high level of utilization in some of the Web 2.0 applications. In addition, the study observed high rates of using blogs and Wikipedia among the librarians.

- Tyagi [10] expressed that Web 2.0 was especially useful and creative when knowledge was digitized, modular and allowed to be used and distributed in a flexible way. The application of the Web 2.0 tools in Indian higher education was still marginal and it would have to overcome a lot of obstacles in order to hold its ground as in higher education of developed countries. The adoption of Web 2.0 tools at universities was associated with important challenges (potential risks, institutional fears) and an effective strategy to deal with implementation problems.

- Tyagi [11] observed that significant portion of the respondents had good knowledge about the Web 2.0 tools. Web 2.0 provided innovative and interesting resources for librarians to serve their users as quickly and effectively as possible with new ways. The respondents having excellent skills of internet usage were more inclined towards adoption of Web 2.0 technologies in their personal life.

- Thanuskodi [12] carried out a survey on awareness of library 2.0 applications among library and information science professionals at Annamalai University, India, which indicated that majority 37 (61.66%) of the respondents needed training on Web 2.0 technologies and tools. The study found that 20 (33.33%) of the respondents considered workshops as important for using blogs. When asked about workshop on using wikis, only a very few respondents (15.55%) agreed to it.

The reviews of literature indicate that there was no such literature to understand the level of awareness and use of Web 2.0 tools by the LIS professionals in the university libraries of Assam state.

6. Analysis and Interpretations

The analysis and interpretations are discussed below:

A. Level of Awareness of Web 2.0 Applications

LIS Professionals were asked to specify whether they were familiar about Web 2.0 tools such as blogs, Wikipedia, RSS feed, social networks, podcasting, and others. It was observed that all of the respondents have sufficient knowledge about the Web 2.0 tools (Table 1). 86% of respondents in Assam

University were aware of Web 2.0 tools. While, only 75% of respondents in Tezpur University were aware of the same.

Table 1: Level of Awareness of Web 2.0 Tools

Aspects	Assam University		Tezpur University	
	Responses (N = 14)	%	Responses (N = 8)	%
Yes	12	86	6	75
No	2	14	2	25
Total	14	100	8	100

A question was posed to identify which particular Web 2.0 tools were used and the respondents were aware of. The results are depicted in percentages and illustrated vide Figure 1.
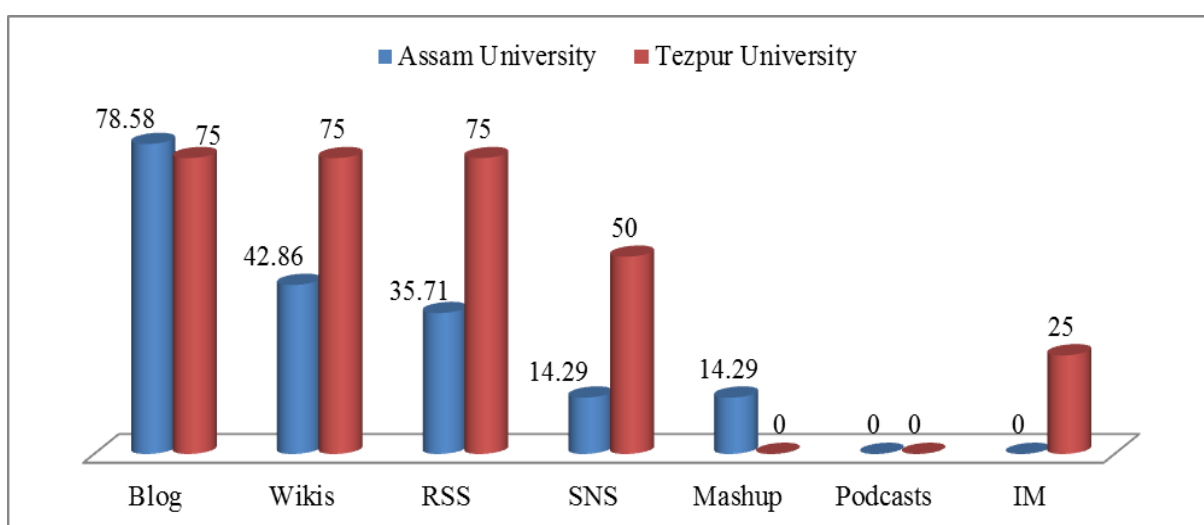

Figure 1: Familiarity of Web 2.0 Tools (in percentages)

It was revealed from the study that the respondents in both the universities are highly aware blogs as Web 2.0 tool**.** The percentage of response is 78.58% in Assam University and 75% in Tezpur University.

B. Use of Web 2.0 Tools

One of the main objectives was to study the opinion of usage of Web 2.0 tools among LIS Professionals. Results showed that 86% of the participants of Assam University used Web 2.0 tools while 75% of the respondents of Tezpur University used Web 2.0 tools as shown in Figure 2**.**
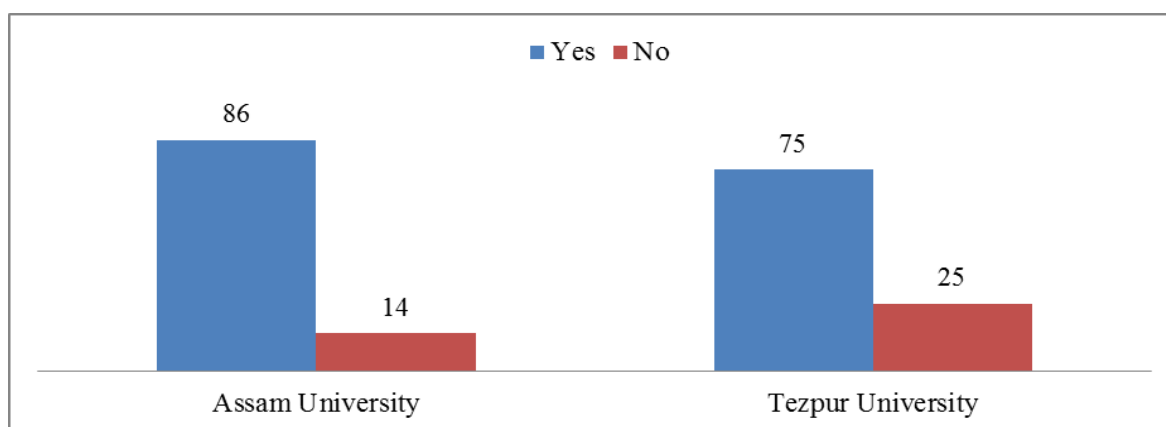
Figure 2: Use of Web 2.0 Tools (in percentages)

C. Sources of Learning the Web 2.0 Tools Use

Respondents were asked to classify the method used for acquiring the necessary skills to use Web 2.0 applications. The results are shown in Figure 3. It was revealed from the data that 64.29% of Assam University LIS professionals learnt through self-practice, while 75% respondents of Tezpur University acquired skills through self-practice; 42.86% of respondents learnt Web 2.0 tools through workshop and 12.5% of participants acquired knowledge through workshop respectively.
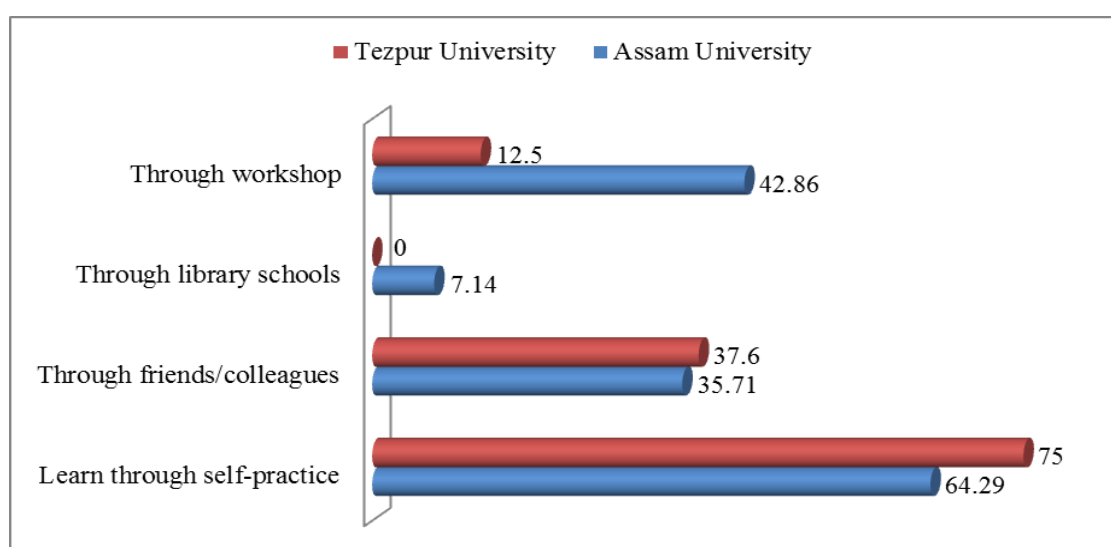

Figure 3: Means of Acquiring Skills to Use of Web 2.0 tools (in percentages)
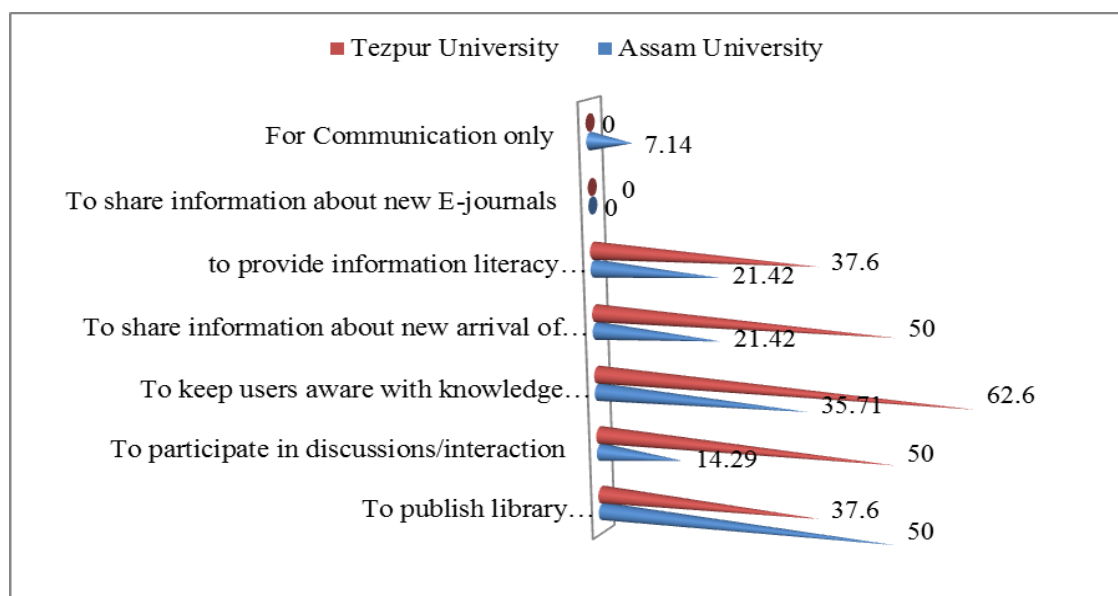
D. Impediment to the Use of Web 2.0 Tools

Only a few LIS professionals responded to the question where they were asked to mention the reasons why they were not using Web 2.0 Applications. Table 2 discloses various reasons for not using Web 2.0 tools among LIS professionals. 21.42% of respondents in Assam University expressed that they have IPR/copyright issues and institutional fears in using Web 2.0 applications. While, only 12.5% of participants in Tezpur University responded that inability to prove "authenticity of the content" and IPR/copyright issues in using Web 2.0 applications. Only 14.29% of participants in Assam University realized unreliable power supply in using Web 2.0 applications in library.

Table 2: Reasons for Not Using Web 2.0 tools

Reasons for Not Using Web 2.0 Tools	Assam University		Tezpur University	
	Responses (N = 14)	%	Responses (N = 8)	%
Inability to prove "authenticity of the content"	0	0	1	12.5
IPR and copyright issues	3	21.42	1	12.5
Institutional fears	3	21.42	0	0
Unreliable power supply	2	14.29	0	0

E. Purposes of Web 2.0 Tools Use

Differences regarding the purposes for which LIS professionals use Web 2.0 tools also exist among LIS professionals in Assam University and Tezpur It was observed that 62.6% of LIS professionals in Tezpur University use the Web 2.0 tools for keeping users aware with knowledge of current subjects. While, only 35.71% of LIS professionals in Assam University use the Web 2.0 tools for keeping users aware with knowledge of current subjects. 50% of LIS professionals in Tezpur University engaged in sharing information about new arrival of books and participate in discussions/interactions. While, only 21.42% of LIS professionals in Assam University engaged themselves in sharing information about new arrival of books and participate in discussions/interaction (Figure 4).

Figure 4: Purposes of Web 2.0 tools use among LIS Professionals (in percentages)

F. Challenges Faced in Using Web 2.0 Tools

LIS professionals were asked to indicate challenges faced in using Web 2.0 tools (Figure 5). Various problems have been mentioned by the respondents. 87.6% of LIS professionals in Tezpur University indicated lack of skills as one of the major encounters to effectively use Web 2.0 tools. While, only 50% of LIS professionals from Assam University realized lack of skills as a barrier. 62.5% of LIS professionals in Tezpur University opined lack of facility and lack of infrastructure as a challenge to use Web 2.0 tools. While 50% of LIS professionals in Assam University indicated that lack of facility and lack of infrastructure as challenges in using Web 2.0 tools.
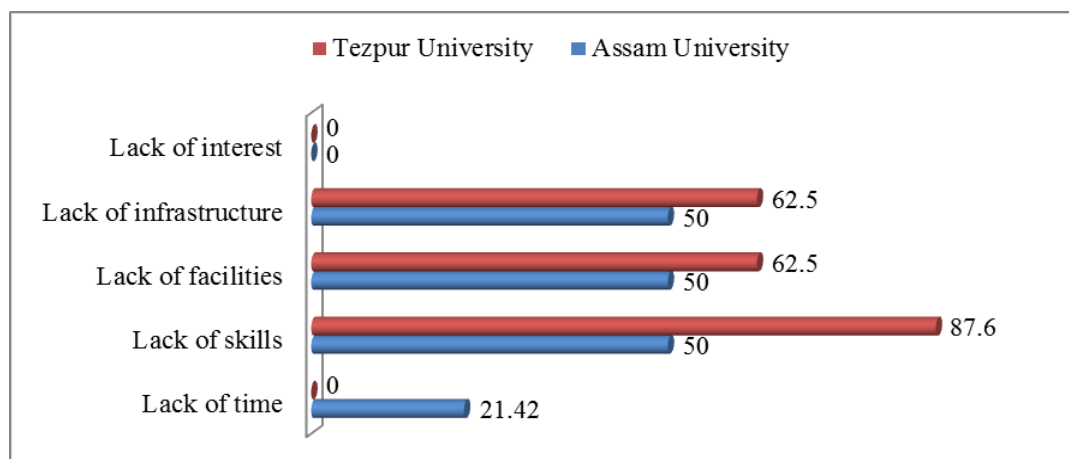
Figure 5: Barrier in Using Web 2.0 tools among LIS Professionals (in percentages)

G. Type of Training and Tools of Web 2.0

The study showed that 71.42% of LIS professionals of Assam University needed training on application of Web 2.0 technologies and tools. While only 75% of Tezpur University participants opined that they required training on application of Web 2.0 technologies and tools in libraries. 57.14% of the Assam University respondents felt the importance of workshop for using blogs, wikis, SNSs, and podcasting. While only 62.5% of Tezpur University respondents were of the view that they needed workshop to learn about blogs, wikis, SNSs and podcasting. When asked about workshops on application of mashups, only 35.71% of respondents of Assam University and 37.6% of Tezpur University agreed the same (Figure 6).
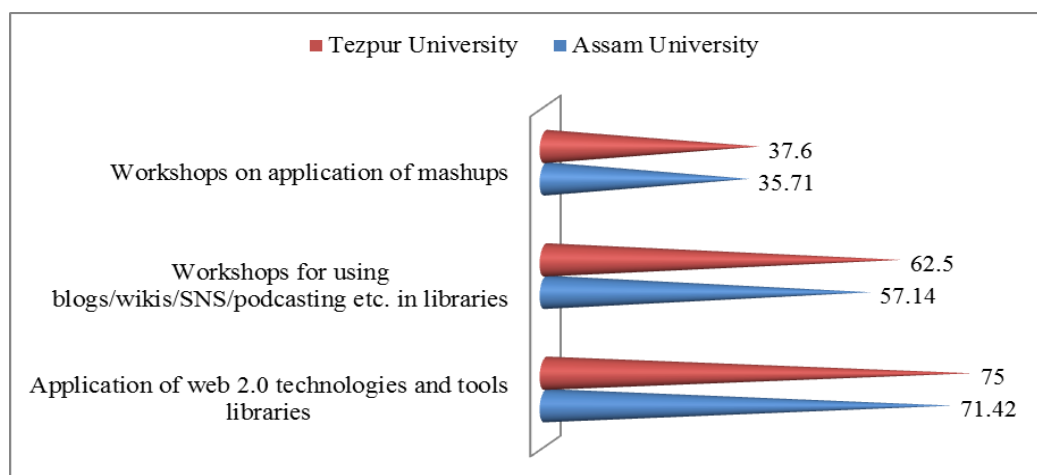

Figure 6: Training Needs on Web 2.0 tools

H. Training Needs on Web 2.0 Tools

Respondents were asked to indicate their outlook regarding the training wishes on Web 2.0 tools in libraries. Table 3 shows that LIS professionals of both the universities supported the needs for the training on Web 2.0 tools.

Table 3: *Training Needs on web 2.0 tools*

Training on Web 2.0 Tools	Assam University		Tezpur University	
	Responses (N = 14)	%	Responses (N = 8)	%
Yes	14	100	8	100
No	0	0	0	0
Total	14	100	8	100

7. Discussion

Web 2.0 tools facilitate different library services, geared towards the needs and expectation of today's library users. It makes information accessible whenever or wherever the users require it. Web 2.0 based library services are new trends for library and information centres. Library and information professionals should pay attention that Library 2.0 could revitalize the way they serve and interact with the customers [6]. The present study was conducted with a main objective to determine LIS professionals' awareness on Web 2.0 tools as a best practice and its usage in the two central university libraries of Assam. The usage of Web 2.0 tools among LIS Professionals derived from the study showed higher in Assam University than the Tezpur University. Respondents of both the universities felt the needs for the training on the use of Web 2.0 tools so that they can make optimum use of these tools for providing services to their users.

8. Recommendations

From the results discussed above following recommendations have been drawn:

- Seminars or workshops should be regularly organized from time to time for LIS professionals and users to support themselves to become familiar with different Web 2.0 tools. This would help to improve their level of competencies in delivery and use of library services.
- Many Web 2.0 tools are freely available in the web and students are already taking advantage of them. They can participate, contribute and collaborate in the creation of a new content over the web. Moreover, there is no financial constraint in using these tools. Thus, University Authority should support the use of these existing technologies rather than developing new technologies from scratch.
- The Web 2.0 tools support in enhancing the excellent as well as innovative and more efficient library services to the present users and will also help in reaching out to new potential users. Librarians and LIS professionals should be ready to adopt Web 2.0 tools based services to the users. It opens a way to interact/share their information to users.
- A separate course on Web 2.0 tools should be included in course curriculum in library science departments in universities. Teaching about Web 2.0 tools in library science department will enable to prepare the next generation library staff for the new challenges ahead.
- LIS professionals should acquire required knowledge and training to use Library 2.0 tools in their libraries effectively.
- Library 2.0 services are constantly updated and reevaluated to best serve the library users. LIS professionals should attempt to harness the Web 2.0 tools in the design and implementation of library services and by encouraging users' feedback and participation [8].

9. Conclusion

Many Web 2.0 tools are extensively available which can be of great help for the libraries. The LIS professionals in the central university libraries of Assam should take advantage out of them. They can participate, contribute, and collaborate in the creation of a new content over the web. These tools are simple to use and easy to customize as per needs. Web 2.0 tools support in enhancing the innovative and more efficient services to the library users. Some of them may successfully attract new patrons to the library, others may help to retain existing members or make libraries even more important as centres of the culture and history of their cities and academic institutions. These new services and on-going changes are likely to make libraries more interesting, more relevant, and better acceptable place [2]. Applications of Web 2.0 technologies in libraries will result in a meaningful and substantive change in libraries, its collection, services and methods of delivery of services. Central university libraries in Assam must thrive to embrace Web 2.0 tools for effective service delivery in this digital era. Although LIS professionals are aware of these tools still they must be proactive in their attempts to adopt and use different Web 2.0 tools fully in enhancing best practices. They should continue to play the role they have always played as facilitators between information and the end users. It is now mandatory for academic librarians to be aware of web 2.0 tools as most of the publishers who provide e-resources /databases are enabling these features for easy and prompt access to the user community.

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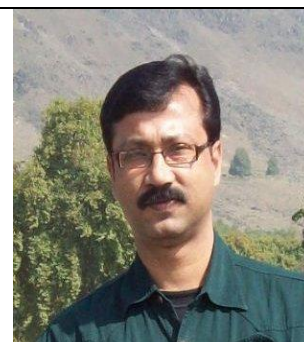
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