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The study of the use of Web 2.0 tools in LIS education in India

Sarika Sawant

Introduction

Web 2.0 refers to a perceived second generation of web-based applications and services and in particular the use of the web as a platform for user-generated content and web-based communities, including particularly social networking, Wikis and folksonomies (O'Reilly, 2005).

There is no doubt that Web 2.0 has changed and transformed access to information and communication. It provides user-created content platform applications, allowing users to contribute their knowledge in different formats like text, data, video and audio. This term was also developed and associated with other terms like Library 2.0, Learning 2.0, etc. These terms reflect the implementation of Web 2.0 in different domains. Garcia *et al.* (2009) noted that Web 2.0 has potential for universities in developing new models of interaction and new forms of exciting education.

The Web 2.0 applications hold profound potential in education because of their open nature, ease of use and support for effective collaboration and communication. They change the traditional view of human knowledge and open up more opportunities in teaching and learning. Today, many instructors are exploring the use of Web 2.0 tools in teaching and learning. However, many researchers agree that studies of instructors' perceptions and opinions are critical, because instructors' perceptions are significant to the implementation of technology innovations in teaching and learning. The present study aimed to explore instructors' use and perceptions of Web 2.0 technologies in teaching and learning. It was expected that the findings of this study would provide useful information that could enable administrators and teacher educators to better understand instructors' use and perceptions of Web 2.0 technologies in teaching and learning. Consequently, a well focused course or training program for pre and in-service instructors integrating Web 2.0 technologies in education could be designed, developed, and implemented.

The present paper investigates library and information science (LIS) instructors' familiarity with Web 2.0 concepts, tools and services, and applications related to LIS education. It also explored the limitation of use of Web 2.0 by the LIS education community in India.

Review of the literature

There were several articles published defining Web 2.0 and its applications in education and in libraries. On the other hand, there were very few articles which discussed the use of Web 2.0 in LIS education in teaching and learning. The important article in this regard was by Virkus (2008). In his paper he described the experiences of the Institute of Information Studies of Tallinn University in introducing information and communication technologies (ICT), including Web 2.0 technologies, in LIS education. The study found out that the staff has been experimenting with Web 2.0 technologies and a few have successfully adopted them in teaching and learning.

A paper by Bawden *et al.* (2007) reported an international comparison of changes in library/information curricula, in response to the changing information environment. It described in detail the responses to an increasing proportion of e-content and the impact of the communication and social networking features of Web 2.0, and Library 2.0. It examined both changes in curriculum content, and in methods of teaching and learning.

Foo and Ng (2008) examined how library schools have addressed Web 2.0 and Library 2.0 as an important aspect of education. It was found that little has been done so far by library schools, particularly in the USA, to embrace Library 2.0 education. They have also proposed a framework for a Web 2.0 plan for education.

Al-Daihani (2009) explored the attitude of LIS academics towards Web 2.0. He investigated academicians' familiarity with Web 2.0 concepts, tools and services, and applications as these relate to LIS education, and the barriers to their use.

Objectives

The objectives of the present study were as follows:

(1) to determine which elements of Web 2.0 are included in the syllabus of the LIS schools in India;
(2) to learn the degree of knowledge and usage of Web 2.0 tools by LIS instructors;
(3) to find out which Web 2.0 tools are taught to students;
(4) to learn what instructors expect from students about Web 2.0 tools;
(5) to find out the problems in using/ teaching Web 2.0; and
(6) to know whether there is any plan to have full course on Web 2.0 in the future or not.

Population of the study

The instructors of selected LIS schools of the Maharashtra state of India were considered as the population of the study. The researcher found out the list of universities of Maharashtra

where LIS courses are offered. With the help of university web sites, LIS instructors were identified. Instructors in this study includes full time, part time and visiting faculty engaged in actual teaching theory and practicals of the BLISc and MLISc degree courses. There are 40 universities in the Maharashtra state of India. Out of 40 universities, nine universities offer LIS degree courses. In these nine universities approximately 30 instructors are on the payroll including full time, part time and visiting faculty.

Research methodology

The data collection tool applied for the study was a web questionnaire, which was created with the help of software provided by surveymonkey. com. This questionnaire was made available online to 30 instructors for filling in data. The web link to the questionnaire was sent to the instructors through email. There were 17 instructors that responded to the questionnaire; a total response rate of 57 percent.

A questionnaire consisting of three sections was designed using the SurveyMonkey online survey tool. The first section had two questions about faculty members in general. The second section consisted of eight questions that inquired about their purpose and use of Web 2.0. It asked usefulness of Web 2.0 in teaching, and also its barriers in teaching. In the third section academicians were asked about their syllabus component of Web 2.0 and their future plans regarding Web 2.0 courses.

Findings

The first section asked respondents about their designation, affiliation to the university, number of years of teaching experience, and their age. It was found that out of 17 instructors, two were heads of LIS schools/departments, two associate professors, ten assistant professors and three visiting faculty. More than half of the respondents were between the 31-40 age group.

The second sections asked respondents about introduction of ICT in education, use and usefulness of Web 2.0, problems in teaching Web 2.0, and future plans.

Benefits of introducing ICT in education

It was observed that 94.1 percent respondents agreed that ICT offers new and innovative modes of learning. This was followed by "Offers teachers opportunities to spend more time on the creation of lessons in a new and challenging way" (82.4 percent). The data is presented in Table I.

17.7 percent of respondents mentioned in "others" that ICT helps students in logical thinking and better understanding of concepts.

Do you use any of the following Web 2.0 tools?

It was observed that 58.8 percent respondents use video sharing, e.g. YouTube for fun or social purposes. For teaching, it was found that 41.2 percent respondents uses social networking sites, e.g. Orkut/Facebook. The data is given in Table II.

For what purposes do you use Web 2.0 in practice?

It was found that almost all, i.e. 82.4 percent use Web 2.0 for sharing of photographs/videos. An equal number of respondents, i.e. 58.8 percent use Web 2.0 for sharing presentations on SlideShare and for Creating blogs/ contributing to blogs. The data is presented in Table III.

What is the usefulness of teaching Web 2.0 tools?

Almost all respondents felt that use of Web 2.0 tools equips learners and instructors with versatile tools of knowledge exchange and collaboration, which overcome the limitations of face to face instruction. This was followed by 88.2 percent respondents who opined that it increases self directed learning skills and enables instructors to better develop and realize their personal potential (Table IV).

What are the problems in teaching Web 2.0?

An equal number of respondents, i.e. 64.7 percent felt that lack of infrastructure and lack of maintenance of computers and security issues were the main problems in teaching Web 2.0. In addition to this, a lack of training programs for instructors to use/teach Web 2.0 tools was found to be the main problem (64.7 percent) (Table V).

Do you have any component of Web 2.0 mentioned in your syllabus?

More than half of the instructors mentioned that they have components of Web 2.0 mentioned in their syllabi. 17.6 percent respondents mentioned that at present there is no Web 2.0 component in their syllabus, but that they would like to integrate it in the future (Table VI).

Table I.
Benefits of introducing ICT in education

	Response (%)	Response count
Helps to simplify/reduce routine and repetitive tasks	70.6	12
Offers new and innovative modes of learning (multiple modes of interaction – (a) synchronous, differentiated content, interactive learning materials)	94.1	16
Offers flexibility of time, place, pace	64.7	11
Offers teachers opportunities to spend more time on the creation of lessons in a new and challenging way	82.4	14
Others (please specify)	17.7	3
	Answered question	17
	Skipped question	0

Table II.

Use of Web 2.0 tools

	Never heard of it	Never used it	Socially/for fun	For teaching	Response count
Social Bookmarking, e.g. StumbleUpon	18.8% (3)	31.3% (5)	12.5% (2)	37.5% (6)	16
Calandering, e.g. Google Calendar	0.0% (0)	20.0% (3)	46.7% (7)	33.3% (5)	15
Collaborative authoring, e.g. Creating Wikis	6.3% (1)	50.0% (8)	18.8% (3)	25.0% (4)	16
Video sharing, e.g. YouTube	0.0% (0)	5.9% (1)	58.8% (10)	35.3% (6)	17
Social networking, e.g. Orkut/Facebook	0.0% (0)	5.9% (1)	52.9% (9)	41.2% (7)	17
File sharing, e.g. using Napster	6.7% (1)	33.3% (5)	26.7% (4)	33.3% (5)	15
Communication tools, e.g. Skype/gtalk/RSS	0.0% (0)	17.6% (3)	47.1% (8)	35.3% (6)	17
	Answered question				17
	Skipped question				0

Table III.

Purpose of use of Web 2.0 in practice

	Response (%)	Response count
Bookmarking web pages and sharing with your students	52.9	9
Online writing/editing/publishing using Wikipedia	23.5	4
Sharing of photographs/videos	82.4	14
Sharing your presentation on SlideShare	58.8	10
Creating blogs/contributing to blogs	58.8	10
Never used it	11.8	2
	Answered question	17
	Skipped question	0

Table IV.

Usefulness of teaching Web 2.0 tools

	Response (%)	Response count
It has more student-centered teaching and learning	70.6	12
Instead of memorizing, students gain more freedom for creativity	47.1	8
The teachers will design the framework in which the students can adapt the courses according to their needs	64.7	11
A lot of content can be created during projects especially at university	70.6	12
It increases self directed learning skills and enables teachers to better develop and realize their personal potential	88.2	15
It equips learners and teachers with versatile tools of knowledge exchange and collaboration, which overcome the limitations of face to face instruction	94.1	16
P2p learning, students learn from peers	64.7	11
	Answered question	17
	Skipped question	0

Do you have any plan in future to have a full or part time course on Web 2.0?

When it was asked about future planning it was found that 41.2 percent of respondents would like to have a full or part time course on Web 2.0 (Table VII).

Do you think that knowledge/use of Web 2.0 will help students to become more competent in the Library 2.0 era?

All respondents are confident that knowledge/use of Web 2.0 will help

students to become more competent in the Library 2.0 era (Table VIII).

Conclusion and discussion

This research has provided insight into the perception of Web 2.0 by academics of nine LIS schools in the Maharashtra state of India. Most of these schools have a good ICT infrastructure and internet connections. The effective use of Web 2.0 applications is dependent on academics' familiarity and interaction with these tools, the opportunities they have had for

exposure to the applications, and their level of skills. This study shows that these academics have a low level of awareness of the Web 2.0. Most of the teachers use Web 2.0 for video sharing via YouTube. Nearly, half of instructors have never used Wikis.

The main problem in the use of Web 2.0 to teach students was a lack of training programs for instructors to use/ teach Web 2.0 tools. According to norms of the University Grant Commission in India, refresher courses in the respective subject is compulsory for every instructor to

Table V.

Problems in teaching Web 2.0

	Response (%)	Response count
Lack of infrastructure	64.7	11
Lack of maintenance of computers and security issues	64.7	11
Poor internet access	41.2	7
No internet access due to filters or internet firewalls	5.9	1
Student's limitations with ICT skills	58.8	10
Lack of content in local language	29.4	5
Lack of time to explore all Web 2.0 applications	29.4	5
Lack of training programs for teachers to use/teach Web 2.0 tools	64.7	11
Not able to relate Web 2.0 applications with teaching	17.6	3
Already overloaded with core library science teaching so no time to add on Web 2.0 tools	17.6	3
Have little or no interest in using integrated social software while teaching	0.0	0
Web 2.0 is a very recent phenomenon that underlies continuous change and transformation	5.9	1
Problems of preserving content produced through Web 2.0 services and applications	5.9	1
Problems of identity, trust, reputation and privacy	11.8	2
	Answered question	17
	Skipped question	0

Table VI.

Any component of Web 2.0 in syllabus

	Response (%)	Response count
Yes	52.9	9
No	11.8	2
No but would like to integrate it in the syllabus in future	17.6	3
Not exactly mentioned in the syllabus but demonstrate in practicals	17.6	3
	Answered question	17
	Skipped question	0

Table VII.

Future plan to have a full or part time course on Web 2.0

	Response (%)	Response count
Yes	41.2	7
No	29.4	5
Planning phase	5.9	1
I do not know	23.5	4
	Answered question	17
	Skipped question	0

Table VIII.

Knowledge/use of Web 2.0 will help students to become more competent in the Library 2.0 era

	Response (%)	Response count
Yes	100	17
No	0.0	0

attend. These refresher courses are organized by academic staff of colleges of universities, or the departments of universities. The directors of such colleges and departments should include the Web 2.0 component in their course so that instructor will be equipped with the teaching/learning of Web 2.0. The best way to learn is to read documentation available on the sites of Web 2.0 tools, blogs and forums, and to employ a little practice and start to learn.

More than half of instructors mentioned that they have the component of Web 2.0 mentioned in the syllabus of their course. All teachers thought that knowledge/use of Web 2.0 will help students to become more competent in the Library 2.0 era.

Web 2.0 affects the creation, distribution, dissemination and repackaging of information and the sharing of knowledge. Virkus (2008) suggested that LIS educators should take advantage of this new technology in order to make progress in this new context. Since the inception of Web 2.0, however, it has posed social and academic challenges for LIS schools and educators as the information market is demanding new competencies and skills from LIS graduates. Libraries also expect professionals in their workforce to be equipped with appropriate competencies in Web 2.0. This suggests that student in LIS programs need to have a fresh orientation directed toward developing Web 2.0 competencies, and LIS educators need to introduce changes in the content and substance of their curricula.

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ABOUT THE AUTHOR

Dr Sarika Sawant is an Assistant Professor in the School of Library Science, SNDT Women's University, Mumbai, India. She has been working as an Assistant Professor since 2004, has published 11 articles in peer reviewed journals and 15 articles in conferences/seminar proceedings. She obtained her PhD in 2010, on the topic "Institutional repository initiatives in India: a status report".

Sarika Sawant (*s1b1s@rediffmail. com*) is Assistant Professor in the School of Library Science, SNDT Women's University, Mumbai, India.

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