



FAMILIARITY WITH AND ADOPTION OF WEB 2.0 TECHNOLOGIES IN HIGHER EDUCATION

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Abstract

This study aimed to finding out the extent of familiarity of teachers and students of higher education institutions of Odisha with web 2.0 technologies. Furthermore, it sought the degree of adoption of web 2.0 technologies by teachers and students. A descriptive survey research design was followed for the study. Data were collected from 166 students and 34 teachers of three universities of Odisha namely, Ravenshaw university, Utkal university and Sambalpur University. Stratified random sampling method was used to select the participants. Questionnaire was used for the collection of data from the participants. The results of the study revealed that majority of the students were highly familiar with and highly adapted to web 2.0 technologies. Teachers were comparatively less familiar with web 2.0 technologies. Teachers' adoption degree of web 2.0 technologies was moderate. The results of the study could be very much useful for all the stakeholders and policy makers of higher education.

Key Words: Familiarity, Adoption, Web 2.0 technology, Higher Education

Introduction

In recent years, the design and delivery of courses in colleges and universities has been significantly influenced by the immersion of technology into numerous facets of society. For example, the emergence of technologies such as e-mail and learning management systems has resulted in new ways in which content is accessed, shared, and delivered throughout a traditional course (Barnett, Keating, Harwook & Saam, 2004). More recently, Web 2.0 applications have emerged with the potential to further enhance the teaching and learning environment in higher education. The advent of Web 2.0 has transformed the Internet into a global network of interconnected learning communities. Contrary to past models of using Internet technologies as a method of accessing course-related information, students can now use various Internet technologies to connect and share with others. Rather than being passive recipients of content and information, students can become actively involved with accessing and connecting information from multiple sources and creating new, sharable knowledge through social interactions (Maloney, 2007).

Are these Web 2.0 technologies beneficial to teaching and learning? From the current body of research related to the use of Web 2.0 in teaching and learning, we do know that these technologies have many affordances to improve teaching and learning (Sonmez & Cakir, 2021; Alexander, 2006; Franklin & Van Harmelen, 2007). These affordances include the ability to support scaffolding and active learner participation, provide opportunities for student publication, feedback, and reflection, and the potential for development of a community of learners (Majid & Verma, 2018; Ferdig, 2007). Through Web 2.0 applications, students can interact with other learners, gain from shared knowledge and experiences and continuously construct their own knowledge. For teachers, this is an exciting time. The advent of Web 2.0 technologies gives teacher the opportunity to empower their students as never before through exciting new tools and mediums. The current generation of students entering universities and colleges uses Web 2.0 applications in their daily lives (Lenhart & Madden 2005, 2007). Educators suggest that Web 2.0 tools ought to be integrated into higher education as digital natives expect to learn with new technologies and because higher education should prepare students for the workplace of the future (Alexander, 2006; Prensky, 2001; Roberts, Foehr & Rideout 2005; Strom & Strom, 2007). As far as the potentialities of Web 2.0 tools are concerned, they provide several opportunities and possibilities to teachers as well as students, in their teaching and learning process particularly at higher education stage. It provides scope to all to learn at anytime, anywhere and anyplace.

However, to harness the power and opportunity offered by Web 2.0 applications, teachers must be comfortable in integrating new technologies into their classroom. Both teachers and students must be aware of Web 2.0 technologies particularly in higher education. Therefore, this study focused on the views and opinion of students and teachers regarding their extent of familiarity with Web 2.0 tools. It also focused on the extent of using the tools for teaching and learning by the teachers. Meantime, it also explored the students' adoption for personal learning.

Rationale of the study

One area of rapidly changing technology is the Internet. With the passage of time and ever-increasing access to affordable computers and related technologies, one can reasonably assume that these numbers will continue to increase. Using the Internet, students can interact and participate in an online learning environment that promotes collaborative and cooperative learning 24 hours a day, 365 days of the year, regardless of where they may be located. And while the initial design of the World Wide Web did not provide much opportunity for interaction with its read-only format, more recently developed Web 2.0 technologies have significantly increased the amount of interaction and collaboration on the Internet with its more dynamic read and write format. Web 2.0 technologies have changed the way users interact with the Internet (Zhang, 2022; Hazari, North, & Moreland, 2008). These Web 2.0 applications can be used to facilitate interaction, and to even further facilitate cooperation and collaboration among users. As suggested by Black (2006), the continued development of new technologies for communication on the Internet is allowing users to engage and interact with one another in new and innovative ways. Web 2.0 technologies have changed Internet users from passive readers of provided content to active writers of co-created, collaborative content. Web 2.0 technologies have reshaped the Internet into global communities that anyone

can join and in which everyone can contribute (Parker & Chao, 2007; Tapscott & Williams, 2008). This new generation of Web tools is predicated on users' modification of, contribution to, and enhancement of shared information (Broussard, 2008). With a greater understanding of how to best utilize these technologies in all areas, the ability to use the Internet and Web 2.0 technologies to work and learn collaboratively and cooperatively in co-creating information and knowledge has the potential to transform the way teachers teach and students learn, in essentially all curricular areas. Web 2.0 technologies like blogs, wikis, social networking, RSS, podcasting really contribute significantly to the learning environment.

Many studies have been conducted on Web 2.0 and its adoption at various levels of education. It has been further suggested that web2.0 tools should be integrated into higher education as digital natives expect to learn with new technologies and because higher education should prepare students for the workplace of the future (Alexander 2006, Strom & Strom 2007). Researchers have identified several benefits of Web 2.0 technologies in higher education to learners (Alexander 2006, Smith, & Toland 2008, Lamb 2004). Many studies have focused on one particular tool, for example, blogs, social networking, twitter, etc within a certain discipline. Schroter 2007, & Sawant, 2012 found in their study that there was high familiarity and adoption. Tyagi, (2012), Kumar (2011) found faculties are well aware of Web 2.0 technologies. Junco (2012), Zakarian (2013), Kilis et.al, 2016 and Chawinga 2017 explored the use of social media in educational settings. Malhiwsky, 2010 & Prensky, 2010 claimed Web 2.0 technology to be tools that students use for learning essentials skills and getting things done. Kumar, 2009, Yun- Jo An et. al., explored the benefits of Web 2.0 technologies in learning environment. Moll & Hengstler (2012), Sharma & Monteiro (2012), Sun & Chang (2012) demonstrate student perceptions of weblogs activity and encourages them to actively and reflectively engage in knowledge sharing, generation, and the development of numerous strategies to cope with difficulties encountered in the learning process. Most of the studies have been conducted abroad on familiarity, adoption, interest, use and awareness of teachers and students about Web 2.0 at various levels of education. So far, not many studies have been conducted in India on awareness, familiarity and adoption of web2.0. Very few studies have been conducted in Odisha regarding that. Many studies conducted in India suggests that more and more research need to be done regarding awareness, perception, use, familiarity on Web 2.0. Therefore the researcher is determined to conduct a study on familiarity and adoption of Web 2.0 in higher education in Odisha. The focus of investigation will be on exploring to what extent teachers and students are familiar with Web 2.0 technologies in higher education and to what extent they are adopting it for their teaching and learning. . In addition, the results of this study could be useful for all stakeholders who are using the Internet in university teaching in local and regional educational institutions.

Statement of the Problem

In order to find out answers to the objectives, the research problem was entitled as **“Familiarity with and Adoption of Web 2.0 Technologies in Higher Education”**.

Objectives of the Study

The objectives of the study were:

1. To study the level of familiarity of students about Web 2.0 in higher education

2. To study the extent of familiarity of teachers about Web 2.0 in higher education
3. To study the degree of adoption of Web 2.0 technologies in higher education

Research Questions

The following were the research questions of the study:

1. What is the degree of familiarity of students about Web 2.0 in higher education?
2. To what extent are the teachers familiar with Web 2.0 in higher education?
3. To what extent do the students and teachers adopt Web 2.0 technologies in higher education?

Operational Definition:

Familiarity: It means close acquaintance and well informed with proper knowledge. In the present study it refers to level of acquaintance about Web 2.0 technologies for teaching and learning.

Adoption: It refers to an act of accepting and using Web 2.0 technologies for teaching and learning.

Web 2.0: It refers to the advance version of web technology which provide a platform for participation and allow user to not only read but to write in the form of adding comments, liking, following, tagging, sharing to an existing post, uploading, downloading document or other media file and simply chatting in a online social space for teaching and learning.

Methodology

Design of the study: The study aimed at investigating the familiarity level and adoption of web 2.0 technologies in higher education by teachers and students. So, Descriptive Survey method design was used for the study.

Population and Sample: The population of the present study consisted of all the teachers and students of higher education institutions of Odisha. The investigator followed stratified random sampling method for the study where 166 students and 34 students were selected randomly from the three universities namely, Ravenshaw University, Utkal University, Sambhalpur University. Initially it was proposed that 100 students and 30 teachers to be included from each of the three universities. But due to some unavoidable circumstances, that much data could not be collected.

Tools and Techniques Used: The investigator used questionnaire for both teachers and students. It included three sections containing questions and statements with multiple choices as responses. The respondents were required to put a tick mark on appropriate option.

(a) Questionnaire for students entailed questions and statements to study their extent of familiarity with and adoption of Web 2.0 technologies for learning. Section A of the questionnaire included questions and statements to study the knowledge of Web 2.0 technologies of students. Section B was to study the level of familiarity of students with web 2.0 tools. It included a rating scale i.e. 3= I know and I use, 2=I know but don't use and 1= I don't know , I only heard. Section C was to study the adoption level of Web 2.0 tools by students. It included questions with five options as responses i.e. Daily, Weekly, Monthly, Yearly and Never.

(b) Questionnaire for teachers entailed questions and statements to study their extent of familiarity and adoption of Web 2.0 technologies for teaching and personal learning. Section A of the questionnaire included questions and statements to study the knowledge of Web 2.0 technologies of teachers. Section B

was to study the level of familiarity of teachers with web 2.0 tools. It included a rating scale i.e. 3= I know and I use, 2=I know but don't use and 1= I don't know , I only heard. Section C was to study the adoption level of Web 2.0 tools by teachers. It included questions with five options as responses i.e. Daily, Weekly, Monthly, Yearly and Never.

Statistical Techniques used for Data Analysis: Descriptive statistics was used to analyze and interpret the collected data. The investigator analyzed the questionnaire by finding out the percentage of responses of the respondents.

Delimitation of the Study

The study was confined to teachers and students of three Universities of Odisha state and their familiarity with and adoption of web 2.0 technologies only. Furthermore, the study was limited to Survey research design only.

Analysis and Interpretation

- The first objective of the study was to study the level of familiarity of students with Web 2.0 technologies.

Use of Web 2.0 tools for learning by the students (N=166)

Question	N	Response		
		Yes	No	No Comments
Do you use Web2.0 tools such as blogs, podcasting, wikis, RSS, social software for learning?	166	136	21	9
Percentage	100	81.9%	12.6%	5.4%

From the above table, it is found that majority of the students are highly adapted to Web 2.0 tools with 82%(136) of students use Web 2.0 tools for learning while only 12.65%, (21) students said 'No', it means they don't use Web 2.0 tools for learning, may be, because of their unfamiliarity with it.

Use of kinds of Web 2.0 tools by the students (N=166) for leaning

Question	Response	
	Yes	%
What kind of web2.0 tool do you use for learning?		
Email	147	88.55
Blog	57	34.33
Social networking	132	79.51
Social bookmarking	46	27.71
Podcast/Vodcast	19	11.44
Wikis	106	63.85
RSS Feed	39	23.49
Microblog	17	10.24
Concept mapping	29	17.46
Instant messenger	101	60.84

Online presentation tool	82	49.39
Course management	29	17.46

As depicted in the above table, Email has been mostly used tool by the students 147(88.5%) followed by Social networking 139(79.5%), Wikis 108(63.8%) and Instant messenger 101(60.8%) for leaning. While, Micro-blog 17(10.2%) and Podcast/vodcast 19(11.4%) have been found to be least used by the students. Therefore, email, social networking (Facebook, Instagram) and wikis is highly used and adopted by the students. These web2.0 tools are mostly used for personal learning. But Microblog and podcast/Vodcast are least used for learning. This may be lack awareness on its usability in education but most in entertainment.

Familiarity level of students (N=166) with Web 2.0 technologies

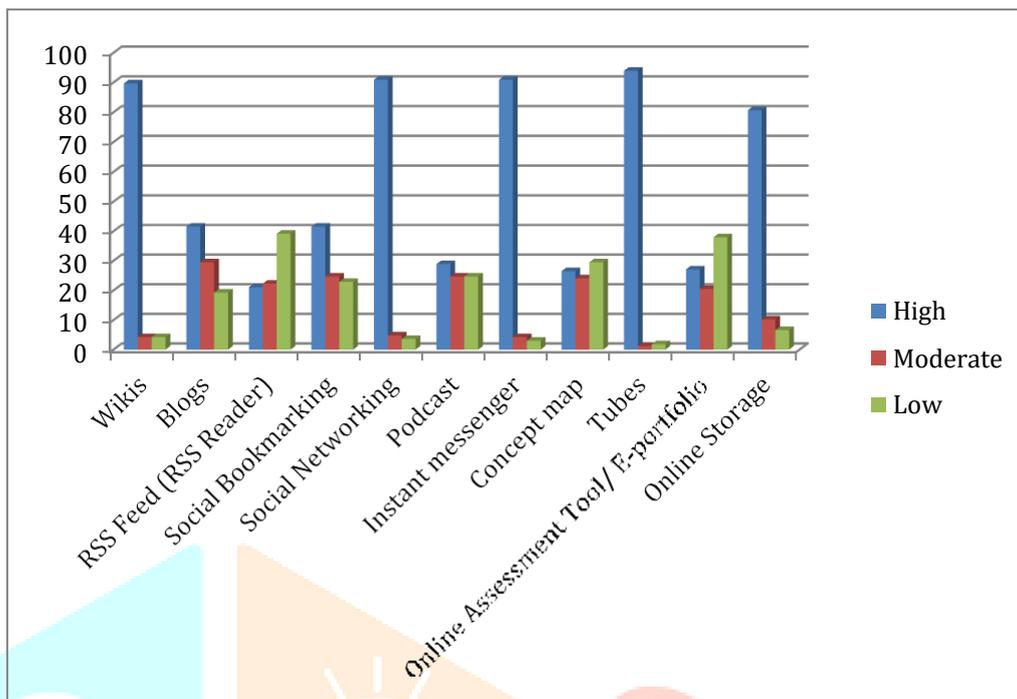
SI No	Statement	Response (in %)		
		High familiarity= I know and I use + I know	Moderate familiarity=I knowbut don't use	Low familiarity=I don't know, I only heard
	Web 2.0 tools			
a)	Wikis	89.75	4.21	4.21
b)	Blogs	41.56	29.51	19.27
c)	RSS Feed (RSS Reader)	21.07	22.28	39.15
d)	Social Bookmarking	41.56	24.68	22.89
e)	Social Networking	90.95	4.81	3.61
f)	Podcast	28.91	24.69	24.69
g)	Instant messenger	90.95	4.21	3.01
h)	Concept map	26.5	24.08	29.51
i)	Tubes	93.97	1.2	1.80
j)	Online Assessment Tool/ E-portfolio	27.1	20.47	37.95
k)	Online Storage	80.71	10.23	6.62

The above table indicates that students have high familiarity with some Web 2.0 tools, such as, Tubes (93.97%), Social Networking (90.95%), Instant Messenger (90.95%), Wikis (89.75%), Online Storage (80.71%). Less than 50% of students have high familiarity with Podcast (28.91%), E-portfolio (27.1), Concept map (26.5), RSS Feed (21.07%), Blog (41.56) and Social Bookmarking (41.56%). Less than 30% of students are moderately familiar with Podcast (24.69%), Concept map (24.08%), Eportfolio (20.47%), Online Storage (10.23), Tubes (1.2), Instant messenger (4.21%), Social Networking ((4.81%), Blogs (29.51%), RSS Feed(22.28%), Social Bookmarking (24.68%), Wikis (4.21%). 39.15% of students are unfamiliar with RSS Feed. 37.95% of students are unfamiliar with E-portfolio. 22.89%, 24.69% and 29.51% of students have low familiarity with Social Bookmarking, Podcast and Concept map respectively.

Therefore, it can be concluded that majority of the students are highly familiar with web2.0 tools specifically tubes (Youtube), SNS (facebook, instagram), IM (watsapps, Hike, Viber), online storage and Wikis. This indicates that these tools can be used for effective teaching learning in higher education for

complement the classroom learning. While blogs, social bookmarking , RSS feeds, e-portfolio are less familiar to students inspite of its educational features.

The level of familiarity of students with Web 2.0 technologies (in percentage)



Familiarity of teachers (N=34) with Web 2.0 technologies

- The second objective of the study dealt with studying the level of familiarity of teachers with Web 2.0 technologies.

Use of Web 2.0 tools for teaching and personal learning by teachers(N=34)

Question	N	Response (in %)		
		Yes	No	No Comments
Do you use Web2.0 tools such as blogs, podcasting, wikis, RSS, social software for teaching and personal learning?	34	55.88	41.17	2.94

From the above table, it is found that just little more than half of the teachers use Web 2.0 tools for teaching and personal learning (55.88%). It shows that they are moderately adapted to Web 2.0 technologies. 41.17% of the teachers responded ‘no’ which means they don’t use it for teaching and personal learning. 2.94% (M=0.33) of teachers did not respond.

Use of kind of Web 2.0 tools for teaching by teachers (N=34)

Question	Response	
	Yes	%age
What kind of web2.0 tools do you use for teaching?		
a) Email	28	82.3
b) Blog	11	32.4
c) Social networking	23	67.6
d) Social bookmarking	6	17.6
e) Podcast/Vodcast	6	17.4
f) Wikis	17	50
g) RSS Feed	1	3
h) Microblog	1	3
i) Concept mapping	8	23
j) Instant messenger	10	29.4
k) Online presentation tool	14	41
l) Course management	6	17.6

The above table depicts that Email is used the most by the teachers for teaching (82.35%). The second mostly used Web 2.0 tool by the teachers for teaching is Social Networking (67.64%), followed by Wikis (50%) and online presentation tool (41.17%). Other Web 2.0 tools such as Blog, Instant Messenger, Concept Mapping have been found to be less used by the teachers for teaching. Social Bookmarking, Course Management and Podcast (17.64%), RSS Feed and Micro-blog (2.94%) have been found to be the least used tools by the teachers.

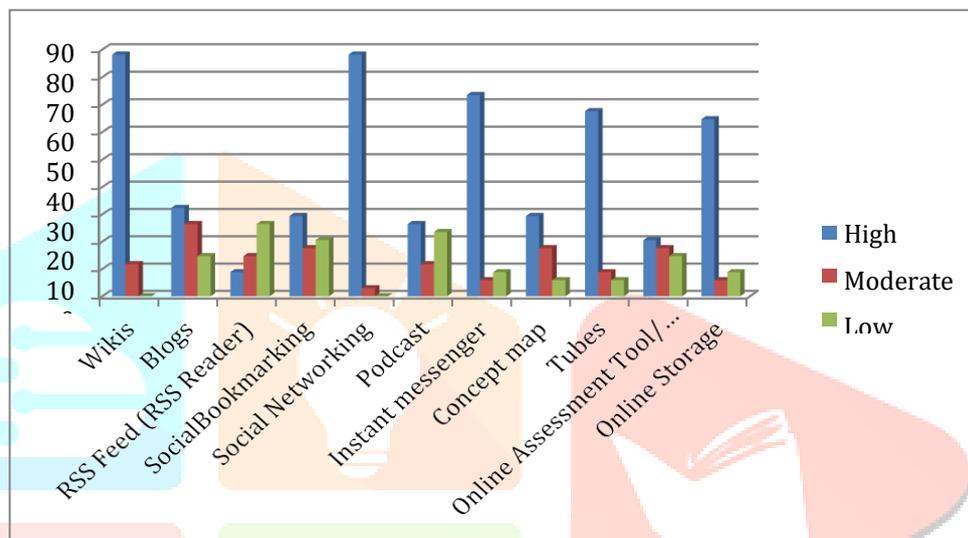
Therefore, the teachers most familiar and adopted to email, social network sites and wikis for teaching and learning. While content creator tools like concept map, assessment tools like e-portfolio, course management and podcast is least familiar and adopted by the teacher. There should be more integration of web 2.0 tools in education to enhance the classroom teaching and learning to facilitate and complement the students.

Familiarity of teachers (N=34) with Web 2.0 technologies

Statements	Response (in %)		
	High familiarity= I know and I use	Moderate familiarity=I know but I don't use	Low familiarity= I don't know, I only heard
Web2.0 tools			
Wikis	88.22	11.76	0
Blogs	32.34	26.46	14.70
RSS Feed (RSS Reader)	8.82	14.7	26.47
Social Bookmarking	29.4	17.64	20.58
Social Networking	88.22	2.94	0
Podcast	26.46	11.76	23.52

Instant messenger	73.52	5.88	8.82
Concept map	29.4	17.64	5.88
Tubes	67.64	8.82	5.88
Online Assessment Tool/ E-portfolio	20.58	17.64	14.70
Online Storage	64.7	5.88	8.82

From the above table, it is found that majority of teachers have high familiarity on Wikis (88.22%) , Social Networking (88.22%), Instant Messenger (73.52%), Tubes (67.64%) and Online Storage (64.7%). Thus, teachers are somewhat familiar with web2.0 tools with moderate level.



Graph showing the familiarity of teachers with web 2.0 technologies

Extent of adoption of Web 2.0 technologies by students

- The third objective of the study was to investigate the extent of adoption of Web 2.0 tools by teacher and students in higher education.

Frequency of the use of Web 2.0 tools for learning by students (N=166)

Question	Response (in %)				
	Daily	Weekl y	Monthl y	Yearly	Never
How often do you use Web 2.0 tools for your personallearning?					
Email	66.26	19.27	6.02	0.60	4.81
Blog	14.45	13.25	6.02	3.61	44.57
Podcast	6.02	5.42	4.81	3.01	55.42
Social Bookmarking	22.89	14.45	6.02	4.81	34.32
Social Networking	71.68	11.44	5.42	0	5.42
Wikis	56.62	19.87	4.21	1.20	10.24
Instant messenger	67.46	10.24	4.81	0.60	7.22

From the above table, it is revealed that email, wikis, social networking and instant messenger is mostly used by the students for personal learning, with 66.2%, 56.6%, 71.6% and 67.4% respectively. Whereas

podcast, blog and social bookmarking is never used by the students for personal learning with 55.4%,43.3% and 44.5% respectively. The result indicates that half of the students are highly adapted while half are less adapted to web2.0 for their personal learning. It may be due to lack of knowledge and educational use.

Frequency of using Web 2.0 technologies for personal learning by the teachers (N=34)

Question	Response (in %)				
	Daily	Weekly	Monthly	Yearly	Never
How often do you use Web 2.0 tools for your personal learning?					
Email	55.88	26.47	2.94	2.94	8.82
Blog	8.82	11.76	8.82	2.94	23.52
Podcast	8.82	5.88	2.94	2.94	20.58
Social Bookmarking	8.82	5.88	8.82	2.94	26.47
Social Networking	47.05	8.82	14.7	0	14.7
Wikis	35.29	11.76	14.7	2.94	14.7
Instant Messenger	26.47	5.88	0	2.94	32.35

From the above table, the data indicates that teachers are email, wikis, social networking, and instant messenger with 55.88%, 47%, 35.2% and 26.4% respectively on daily basis. Whereas never used tools like blog (23%) and instant messenger (32%). The result indicates some teachers are highly adopted and some are never used the web2.0 tools for personal learning.

Major Findings of the Study

The following finding have been found from the present study are;

1. Majority of the students are highly adapted to Web 2.0 tools with 82% (136) of students and teacher 56% use Web 2.0 tools for learning. Thus students of higher education institution in Odisha are highly aware about web2.0 tools while teachers are comparatively less aware than students.
2. Email has been mostly used tool by the students (88%) followed by Social networking(80%), Wikis (64%) and Instant messenger (61%) for leaning. Micro-blog (10%) and Podcast/vodcast (11%) have been found to be least used by the students. While teachers are also used to email, social networking, and instant messenger with 89%, 80% and 61% respectively. It indicates both teachers and students are highly aware and used for teaching and learning.
3. Majority of students are highly familiar and adapted with Email, Instant Messenger and Social Networking. 93.27% of students have accounts in Email followed by Instant messenger (90.36%) and Social networking (86.74%). Students are low familiar with Podcast and Course Management System. Only 9.63% of students have accounts in Podcast and 12.65% of students have accounts in Course management system.
4. Students have high familiarity with some Web 2.0 tools, such as, Tubes Social Networking Instant Messenger, Wikis, Online Storage ,and less familiarity with Blog and Social Bookmarking, Podcast.
5. They have low familiarity with Less than 50% of students have high familiarity with Podcast E-portfolio Concept map RSS Feed Blog and Social Bookmarking. Few students are moderately familiar with

- Podcast, Concept map, E-portfolio, Online Storage, Tubes, Instant messenger, Social Networking, Blogs, RSS Feed, Social Bookmarking, Wikis
6. 39.15% of students are unfamiliar with RSS Feed. 37.95% of students are unfamiliar with E-portfolio. 22.89%, 24.69% and 29.51% of students have low familiarity with Social Bookmarking, Podcast and Concept map respectively.
 7. More than half of the teachers use Web 2.0 tools for teaching and personal learning and they are moderately adapted to Web 2.0 technologies. 41.17% of the teachers responded 'no' which means they don't use it for teaching and personal learning. 2.94% of teachers did not respond.
 8. Email is used the most by the teachers for teaching (82.35%). The second mostly used Web2.0 tool by the teachers for teaching is Social Networking (67.64%), followed by Wikis (50%) and online presentation tool (41.17%). Other Web 2.0 tools such as Blog, Instant Messenger and Concept Mapping have been found to be less used by the teachers for teaching. Social Bookmarking, Course Management and Podcast (17.64%), RSS Feed and Micro-blog (2.94%) have been found to be the least used tools by the teachers.
 9. Majority of teachers have accounts in Email, followed by Social Networking, Wikis and Instant Messenger,
 10. Majority of teachers have high familiarity on Wikis, Social Networking Instant Messenger Tubes, and Online Storage,
 11. More than fifty percent of the students access Email, Social Networking, Wikis and Instant Messenger, daily. Less than twenty five percent of students access Email, Blog, social bookmarking, social networking, wikis and instant messenger weekly.
 12. Majority of students upload contents in instant messenger and social networking on daily basis daily. Less than 10% of students upload contents in blog, podcast and social bookmarking.
 13. Majority of students use social networking, email, instant messenger, wikis daily for personal learning. Less than 25% of students use blog, podcast, social bookmarking daily for personal learning. The result indicates majority highly adopted and familiar with some web2.0 tools.
 14. Less than 20% of students use these weekly for personal learning.
 15. Less than 10% of students use it monthly for personal learning.
 16. Less than 5% of students use it yearly for personal learning.
 17. Majority of students never use podcast, blog, social bookmarking for personal learning used very less for personal learning may be due to interest, awareness and availability of service. Less than 15% of students never use email, social networking, instant messenger and wikis for personal learning.
 18. Images are shared daily by the students the most (57.83%), followed by documents (46.98%). Audio, Video, Multimedia and Info-graphics are shared 33.73%, 35.54%, 33.13% and 14.45% respectively by the students daily in web 2.0 tools.
 19. Less than 10% of students share images, audio, video, info-graphics, documents and multimedia yearly in web 2.0 tools.
 20. Near about 40% of teachers share images daily in web 2.0 tools, 26.47% share video, 23.52% audio and less than 10% share info-graphics (5.88%) and multimedia (8.82%) daily in web 2.0 tools.

21. Less than 25% of teachers share contents weekly and monthly in web 2.0 tools.
22. Less than 10% of teachers share contents yearly in web 2.0 tools.
23. Most of the teachers never share info-graphics and multimedia and while not more than 15% never share images, video, audio and documents in web 2.0 tools.
24. Majority of students access and download images, video, audio, documents, from web 2.0 tools daily. Info-graphics and Multimedia are accessed and downloaded daily basis.
25. Majority of the teachers access email and social networking daily but few of them familiar with Wikis and instant messenger. Podcast and social bookmarking are less accessed .
26. 17.64% of teachers access blog daily. Less than 15% of students access email, podcast, social bookmarking, social networking, wikis and instant messenger daily.
27. Less than 15% of teachers access email, blog, podcast, social networking, wikis monthly. Social bookmarking and instant messenger are accessed 0% monthly.
28. Email and social networking were reported to be accessing yearly. Less than 6% of teachers access blog, podcast, social bookmarking, wikis and instant messenger yearly. Half of the teacher teachers upload contents in email daily upload in social networking. Less than 20% of teachers upload contents in email, podcast, social bookmarking, social networking, wikis and instant messenger monthly.
29. More than 50% of teachers use email; Social networking, wikis and instant messenger are used daily personal learning. This shows that some teachers are highly adapted to the technology because of their familiarity level is high.

Further Implications and Suggestions of the Study

The present study is based on the familiarity and adoption of web2.0 technologies. In today's world, students want to learn with technology. Web 2.0 technology provides several affordances and possibilities to both teachers and students. The results of this study show that students are highly familiar and adapted with some web 2.0 technologies such as social networking, email, wikis, online storage, instant messenger while teachers are very less familiar with Web 2.0 tools except social networking and wikis. More researches should be done with regard to awareness, familiarity, interest, use of students and teachers about web 2.0 in higher education. This study has only dealt with the familiarity level of students and teachers of web 2.0 in three universities of Odisha. Hence to know students' awareness of 2.0, researches ought to be undertaken in colleges also. For a better understanding of the use of web 2.0 tools by teachers and students of higher education, more researches need to be undertaken in different colleges and universities in Odisha. Studies should be done on why teachers are failing to integrate these technologies in classroom.

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