

Awareness and Use of Social Bookmarking Services by Final Year Students in a Nigerian Private University

Idowu Adegbilero-Iwari, Joseph Kehinde Fasae & Oluwaseun E. Adegbilero-Iwari

Abstract

Social computing is one of the renascent features of the web that has made it highly interactive. One of such social tools in the web is the social bookmarking services. It has been reported that social bookmarking services may be the least known social media network by students. Given that social media has been predicted to revolutionize learning it is therefore imperative to study the awareness and use of social media tools like social bookmarking services by undergraduate students. The survey research design was employed and questionnaire used to collect data. Using the SPSS statistical tool, the data were analysed and the result presented in simple percentages. It was found that the students are largely (60.9%) not aware of social bookmarking services. Their familiarity with and usage of the services were very low as very little proportions of the respondents can either “use”, “are using” or “have used” some of the social bookmarking services. With 28%, meeting people with similar research interest is the most beneficial feature of social bookmarking services to the students. But overall, the students (52.2%) agree that social bookmarking services are useful for their academic work.

Keywords: social bookmarking, social media, undergraduate students, private university, web2.0

Introduction

The Web is now more interactive than ever before. So many tools and/or technologies have been incorporated into the new Web in order to make it live up to its name as Web 2.0 or the Interactive Web. Tools as wikis, blogs, social media networks and social bookmarking technologies flooding the cyberspace have enhanced the Web from its hitherto static form to the more robust and now ageing Web 2.0. These tools are becoming very useful for learning and research. Solomon and Schrum (2007) predicts that Web 2.0 technologies will revolutionize learning, particularly in the realm of higher education. Haustein and Siebenlist (2011) have it that “Web 2.0 technologies are finding their way into academics: specialized social bookmarking services allow researchers to store and share scientific literature online. By bookmarking and tagging articles, academics generate new information about resources, i.e. usage statistics and content description of scientific journals”.

Social bookmarking tools are described as an extension of the “bookmarks” or “favourites” features of your Web browser. Noll and Meinel (2007) define a social bookmarking service as a centralized online service which enables users to add, annotate, edit, and share bookmarks of web documents. The contemporary Web has popularized social bookmarking services, which let users specify keywords or tags for Web resources that they are interested in. “Among others, examples of social bookmarking systems include del.icio.us (<http://del.icio.us.com>) and Flickr(<http://flickr.com>), which let users tag websites and pictures, respectively” (Farooq, Kannampallil, Song, Ganoë, Carroll & Giles, 2007). Despite the values of social bookmarking, so many students are still largely unaware of its value to their learning experience. Grosbeck (2008) feels that most students are still largely unaware of social bookmarking and the impact

that it could have on their educational experiences. Citing Grosseck (2008), Farwell and Waters (2010) note that social bookmarking may be the least known form of social media applications by students today. This may not be untrue, as there has not been much research done in the area of students' use of social bookmarking tools and thus, the focus of this study as it seeks to assess the awareness and usage of social bookmarking services by students in a Nigerian private university with particular reference to Afe Babalola University, Ado -Ekiti

Research Objectives

This study is aimed at the following:

1. To assess undergraduate students' awareness of social bookmarking services.
2. To know the social bookmarking services they are familiar with.
3. To assess the use of social bookmarking services by the final year students of Afe Babalola University, Ado-Ekiti.
4. To see the feature of social bookmarking service most beneficial to them.
5. To find out if social bookmarking services are useful for their academic work.

Research Questions

The study seeks to answer the following research questions:

1. Are final year undergraduate students of Afe Babalola University, Ado-Ekiti aware of social bookmarking service?
2. Which social bookmarking services are they familiar with?
3. What is the students' level of usage of social bookmarking services?
4. What are the features of social bookmarking services most beneficial to the students?

5. Are social bookmarking services useful for their academic work?

Background Information

Afe Babalola University, Ado-Ekiti is a privately owned university established in January 2010. It is situated in Ado-Ekiti. Geographically, Ado-Ekiti is located on latitude $7^{\circ}35'$ and $74^{\circ}47'$ North of the equator and longitude $5^{\circ}11'$ and $5^{\circ}16'$ east of the Greenwich meridian. It is bounded on the North and West by Ifelodun/Irepodun Local Government and East and South by Gbonyin, Ikere and Ekiti South West Local Government. Its longest North-south extent is 16km and the longest East-west stretch is about 20km (Ekiti State Government, 2013). Afe Babalola University, Ado-Ekiti graduated its first set of graduands in October 2013 and the study was conducted on about the 103 graduands while in their final year in the course of the 2012/2013 academic session.

Literature Review

Farooq et al (2007) describe Social bookmarking systems as one of the several systems that have been popularized by Web 2.0. Social bookmarking systems, according to them, allow users to specify keywords or tags for web resources that are of interest to them, helping them to organize and share these resources with others in a community. Meanwhile, according to the Scout Report of 1999, the concept of shared online bookmarks is believed to have originated in around April 1996 with the launch of itList whose features according to Humphries (2000) included public and private bookmarks. But the term social bookmarking was popularized in 2003 when Delicious formerly del.icio.us was created. With Delicious came the tagging capabilities of social bookmarking tools. Soon after, a number of services such as Simpy, Furl, Spur.net, unalogs were deployed to the cyberspace.

Idowu Adegbilero-Iwari, Joseph Kehinde Fasae & Oluwaseun E. Adegbilero-Iwari

There seem to be a consensus on the features of social bookmarking tools. Such features that distinguish social bookmarking services from mere bookmarking and/or other social networking tools and web services are distinctive. As a platform, social bookmarking services include the following functions: storage, search, interaction, community, and presentation (Liu& Chang 2008). It allows users to save links to web pages that they want to remember and/or share. Online storage of bookmarks or favorites web pages (Humphries, 2000) and the free text description of the web pages is another important feature. Tagging is an essential feature of social bookmarking sites. They are also built with folksonomy (social or collaborative tagging) capability. According to Lund, Hammond, Flack and Hannay(2005) social bookmarking services have matured and grown more popular, they have added extra features such as ratings and comments on bookmarks, the ability to import and export bookmarks from browsers, emailing of bookmarks, web annotation, and groups or other social network features. On users privacy, although the services publicize users' bookmarks, opening to other users on the Web their own sphere of interests, Hammond, Hannay, Lund, and Scott (2005) however note that, some tools already support, or plan to support, the option of keeping certain bookmarks private.

Social bookmarking can be useful as a way to access a consolidated set of bookmarks from various computers, organize large numbers of bookmarks, and share bookmarks with contacts. Haustein and Siebenlist (2011) reports that like other Web 2.0 platforms, social bookmarking services enable their users to annotate electronic documents with freely chosen keywords. These so-called tags can be chosen on the fly without adhering to indexing rules. Tags can help both the user that picked them to organize his documents and other users to find new content (Mathes, 2004).

The process of assigning freely chosen keywords to a bookmark is called tagging. Through tagging, the user can label and organize the information according to his or her own vocabulary and use, not having to conform to an established order of classification (Etches-Johnson, 2006). Tagging has been said to be a significant feature of social bookmarking systems, enabling users to organize their bookmarks in flexible ways and develop shared vocabularies known as folksonomies. These shared vocabularies underscore the overbearing values of social bookmarking services in the academic arena. In fact, Heymann, Koutrika and Garcia-Molina (2007) had researched on improving web search using social bookmarking data.

Today, there are four social bookmarking tools serving academic purposes: CiteULike, Connotea, BibSonomy and 2collab(Reher & Haustein, 2010). The values of social bookmarking services in academics cannot be over emphasized given that, according to Redden (2010),“Social bookmarking tools serve several purposes including: organizing and categorizing web pages for efficient retrieval; keeping tagged pages accessible from any networked computer; sharing needed or desired resources with other users; accessing tagged pages with RSS feeds, cell phones and PDAs for increased mobility; allowing librarians and instructors the capability to follow students' progress; and giving students another way to collaborate with each other and make collective discoveries”. There has not been much research done in the area of students’ use of social bookmarking tools. However, it has been found that social bookmarking services such as Delicious could be used in a course to provide an inexpensive answer to the question of rising course materials costs (Farwell& Waters, 2010). Bookmarks can be a good way to measure the use of open access resources and sources since even though some open access repositories and open access journals offer ‘usage’ statistics, comparative data across different resources is not

readily available, not least because of the different approaches used to measure 'usage' (Borrego& Fry 2012). Some examples of social bookmarking services include:

Delicious, developed in 2003 is perhaps the best known currently of all such tools (Lund et al, 2005). They reported further that it is very much a personal, out-of-hours effort by Joshua Schachter without any immediate intention of developing a business model. Developed initially as a simple web page listing links with annotations, Schachter then decided to make these available on a web server so that friends and others could also make use of these bookmarks. Delicious is reputed to have popularized the terms tagging and social bookmarking.

Connotea according to the Nature Publishing Group is a free online reference management and social bookmarking service for scientists created by them. Connotea was conceived from the outset as an online, social tool. Connotea was designed and developed late in 2004, and soft-launched at the end of December 2004 (Lund et al, 2005).

CiteULike is a bookmarking tool for academic links. Authored by Richard Cameron at Manchester University as a web-based time-saver for managing citations, it emerged quietly in November '04 and has quickly garnered interest within its target community (Hammond et al 2005). Farooq et al (2007) further describe CiteULike (<http://citeulike.org>) as a social bookmarking service for tagging scholarly papers. According to them, CiteULike is a free online social bookmarking service that lets researchers share, store, and organize information about scholarly papers. Users can add links to papers on CiteULike to their own online collections and import references from other scholarly digital libraries.

Simpy according to Hammond et al (2005) was authored by Otis Gospodnetić, a leading Jakarta Lucene developer. According to them Simpy was created for the sole purpose of organizing links: Idowu Adegbilero-Iwari, Joseph Kehinde Fasae & Oluwaseun E. Adegbilero-Iwari

the social aspect grew out of that. It allows users to track other users' bookmarks by creating 'topics'. Any number of users or specific searches can be saved to a topic, and these results will be checked for new bookmarks.

StumbleUpon was founded in November 2001 by Garrett Camp, Geoff Smith, Justin LaFrance and Eric Boyd during Garrett's time in post-graduate school in Calgary, Canada (Wikipedia, 2013). It is a content discovery tool tailored to your personal interests (Fee, 2013). StumbleUpon helps to discover and share great websites.

Twitter also categorized as a social bookmark service and So many other social bookmarking services such as Digg, Diggo, Blinklist, Friendfeed, Reddit, Buzzfeed, FARK, Slashdot, Clipmark, etc have since mushroomed the cyberspace.

Research Method

The survey research design was adopted for the study. A self-designed questionnaire was administered on the respondents who are final year students of Afe Babalola University, Ado-Ekiti, Ekiti State, Nigeria during the 2012/2013 academic session. There are over a hundred students in final year of their studies in the university. A total of 46 copies of the questionnaire were administered on those in attendance at a program organized for them by the university in conjunction with the United States Missions in Nigeria during the academic session. All the questionnaires were returned yielding 100% rate of return. The data was analysed with SPSS statistical analysis tool using simple percentage and the result presented in this report.

Findings and Discussion

Demography of Respondents

Idowu Adegbilero-Iwari, Joseph Kehinde Fasae & Oluwaseun E. Adegbilero-Iwari

Table 1: Respondents Gender

respondent's gender					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	30	65.2	65.2	65.2
	Female	16	34.8	34.8	100.0
	Total	46	100.0	100.0	

With respect to gender, 65.2% of our respondents are males while 34.8% are females.

Table 2: Respondents College

respondent's college					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Science	27	58.7	58.7	58.7
	social sciences	18	39.1	39.1	97.8
	Law	1	2.2	2.2	100.0
	Total	46	100.0	100.0	

With respect to college, 58.7% are from the college of science, 39.1% are from social sciences and 2.2% from law respectively. College of Law did not have students in the final year at the time being a 5-year programme as opposed to Colleges of Science and Social Sciences, therefore the result was disregarded.

Table 3: Use of social bookmarking services

Ever bookmarked webpage or site?					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	36	78.3	78.3	78.3

No	10	21.7	21.7	100.0
Total	46	100.0	100.0	

Table 3 shows that larger proportions (78.3%) of the respondents have bookmarked a webpage or site as shown above. This is however not a surprise as it agrees with Hammond et al (2005) who claimed that Bookmarks or Favorites has now become an integral part of users' everyday web experience.

Table 4: Awareness of Social bookmarking services

Aware of Social bookmarking services					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	18	39.1	39.1	39.1
	No	21	45.7	45.7	84.8
	not sure	7	15.2	15.2	100.0
	Total	46	100.0	100.0	

The analysis shows that 39.1% of the total respondents are aware of social bookmarking services, 45.7% are not aware while 15.2% are not sure. This shows that more than half of the population under study is not aware of social bookmarking services. This result corroborate initial studies of Grossek (2008) who notes that social bookmarking may be the least known form of social media applications by students today and that of Farwell and Waters (2010) who found that the students that participated in their online Focus Groups study largely were unaware of social bookmarking.

Table 5: Familiarity with and usage of social bookmarking sites

SITES	Familiar with	Not Familiar with	Can use	Am using	Have used
StumbleUpon	2.2	91.3	xxxx	Xxxx	6.5
Friendfeed	8.7	76.1	xxxx	6.5	8.7
Digg	4.3	91.3	xxxx	Xxxx	4.3
Connotea.org	2.2	95.7	xxxx	Xxxx	2.2
Reddit	8.7	87	xxxx	Xxxx	4.3
Diigo	6.5	91.3	2.2	Xxxx	xxxx
Twitter	19.6	39.1	6.5	32.6	2.2
Delicious	6.5	89.1	2.2	Xxxx	2.2
Simpy	2.2	95.7	xxxx	Xxxx	2.2
Blinklist	6.5	91.3	Xxxx	Xxxx	2.2
Pinterest	4.3	93.5	Xxxx	Xxxx	2.2
BuzzFeed	8.7	82.6	2.2	2.2	4.3
Fark	2.2	95.7	xxxx	Xxxx	2.2
Slashdot	4.3	93.5	xxxx	Xxxx	2.2
Clipmarks	4.3	89.1	Xxxx	4.3	2.2

Note: The table above is expressed in percentage (%)

The level of usage and familiarity with the social bookmarking sites under consideration is shown in the Table 5. The distribution of the Social bookmarking sites with respect to students' familiarity with them shows that the students are more familiar with Twitter (19.6%) followed by Friendfeed, Reddit and Buzzfeed with 8.7% respondents respectively. But overall, it appears most of the students are not familiar with the social bookmarking services presented in this study. Table 5 reveal that the least known social bookmarking sites among the students are

StumbleUpon, Connotea.org, Simpy and Fark with 2.2% respondents respectively which further confirm the reports of Grosseck (2008) who notes that social bookmarking may be the least known form of social media applications by students today. The result however shows that few proportion of the students have used almost all the services except Diggo. Concerning continuous usage, it was further discovered that Twitter has more users with 32.6% respondents still using it followed by Friendfeed with a respondent of 6.5%.

Table 6: Features of social bookmarking most beneficial

Features of social bookmarking	YES (%)	NO (%)
Sharing bookmarks/ information	19.6	80.4
Organizing bookmarks	13	87
Tagging	8.7	91.3
Cloud computing	15.2	84.8
Bookmarks portability	15.2	84.8
Great resource for searching the web	23.9	76.1
Meeting people with similar research interest	28.3	71.7

The analysis shows that ‘meeting people with similar research interest’ is the most beneficial feature of social bookmarking services to the students with 28.3% respondents followed by ‘great resource for searching the web’ and ‘sharing bookmarks information’ with 23.9% and 19.6% respectively. 15.2% of the respondents voted for ‘cloud computing’ and ‘bookmarking portability’ features of social bookmarking services beneficial to them respectively. The least beneficial feature of social bookmarking is ‘Tagging’ with 8.7% respondents.

Table 7: Usefulness of social bookmarking services for academic work

I dowu Adegbilero-Iwari, Joseph Kehinde Fasae & Oluwaseun E. Adegbilero-Iwari

Found social bookmarking useful to Academic work					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	24	52.2	52.2	52.2
	No	22	47.8	47.8	100.0
	Total	46	100.0	100.0	

The number of respondents who have found social bookmarking useful to their academic work is a little above the mean i.e. 52.2%. 47.8% have not found it useful. It shows that more students have found social bookmarking useful to their academic work. This finding support the report of Haustein and Siebenlist (2011) who claim that Web 2.0 technologies are finding their way into academics and fulfill the prediction of Solomon and Schrum (2007) that Web 2.0 technologies will revolutionize learning, particularly in the realm of higher education.

Conclusion and Recommendations

Undergraduates' final year students of Afe Babalola University, Ado-Ekiti like so many students, as reported in literatures, are not aware of social bookmarking services. On usage, most of the students are using Twitter which may have to do with its popularity as a mainstream social media rather than specialized social bookmarking services. Besides Twitter, the research indicated that the students have used most of the social bookmarking services featured in the survey except for Diigo. Some of them can also use Diigo, Twitter, Delicious and BuzzFeed but few are currently using FriendFeed and Clipmarks. Social bookmarking services are useful to the students' academic work. Meeting people with similar research interest is the most beneficial feature of social bookmarking services to the students. Also, the students find the web search and bookmark information sharing features of the services as also beneficial.

However, the students lowly considered tagging as a beneficial feature of social bookmarking services to them. In overall, the students agree that social bookmarking services are useful for their academic work.

References

- Bollen, J., Van de Sompel, H., Smith, J. A., & Luce, R. (2005). Toward alternative metrics of Journal impact: a comparison of download and citation data. *Information Processing & Management*, 41, 1419–1440.
- Borrego A. and Fry J. (2012). Measuring researchers' use of scholarly information through social Bookmarking data: a case study of BibSonomy. *Journal of Information Science* XX (X) p 1-13. Retrieved from <http://diposit.ub.edu/dspace/bitstream/2445/24222/1/603307.pdf>
- Etches-Johnson. A. (2006). The brave new world of social bookmarking: Everything you always wanted to know but were afraid to ask. *Feliciter*, 2.
- Farooq, U., Song, Y., Carroll, J. M. and Giles, C. L. (2007). Social Bookmarking for scholarly digital libraries. *IEEE Distributed Systems Online*. Pp. 29-35. Retrieved from: <http://research.microsoft.com/pubs/78968/ieeecomputing.pdf>

- Farwell, T.M.; Waters, R.D. (2010). Exploring the Use of Social Bookmarking Technology in Education: An Analysis of Students' Experiences using a Course-specific Delicious.com Account. *Journal of Online Learning and Teaching* 6: 398–408. Retrieved 13/11/2013 from http://www.jolt.merlot.org/vol6no2/waters_0610.htm
- Fee, J. (2013). StumbleUpon: a beginner's guide. Retrieved from <http://mashable.com/2013/02/27/stumbleupon-for-beginners/>
- Grosseck, G. (2008). The role of Del.icio.us in education: creating significant learning experiences. Retrieved 06/01/2014 from <http://www.pgce.soton.ac.uk/ict/NewPGCE/PDFs10/The-Role-of-Delicious-in-Education.pdf>
- Hammond, T., Hannay, T., Lund, B. and Scott, J. (2005). Social bookmarking tools : a general review. *D-Lib Magazine* 11 (4). Retrieved from <http://www.dlib.org/dlib/april05/hammond/04hammond.html>
- Haustein, S. and Siebenlist, T. (2011). Applying social bookmarking data to evaluate journal usage. *Journal of Informetrics* 5(2011) 446–457. Retrieved 27-09-2013 from http://www.phil-fak.uni-duesseldorf.de/fileadmin/Redaktion/Institute/Informationswissenschaft/siebenlist/JOI_AplyingBookmarkingData.pdf
- Heymann, P., Koutrika, G. and Garcia-Molina, H.(2007). Can Social Bookmarking Improve Web Search? *Infolab Technical Report 2007-33*. Retrieved 27/09/2013 from www.cis.upenn.edu/~jstoy/cis650/papers/Heymann.pdf

Humphries, L. (2000). Extras - itList and Other Bookmark Managers. *Law and Technology*

Resources for Legal Professionals. Retrieved 23-01-2014 from
<http://www.llrx.com/extras/itlist.htm>

Liu, E. Z. F. and Chang, Y. F. (2008). Portfolio simulation with social bookmarking in higher education, *International Journal of Mathematics and Computers in Simulation*, (2)1, 109-117.

Lund, B., Hammond, T., Flack, M. and Hannay, T. (2005). Social Bookmarking Tools: A Case Study – Connotea". *D-Lib Magazine* **11** (4).

Mathes, A., (2004). Folksonomies – Cooperative Classification and Communication Through Shared Metadata. Computer Mediated Communication – LIS590CMC, Graduate School of Library and Information Science, University of Illinois Urbana-Champaign, December 2004. Retrieved 22-01-2014 from <http://www.adammathes.com/academic/computer-mediated-communication/folksonomies.html>

Noll, M. G. and Meinel, C. (2007). Web search personalization via social bookmarking and tagging". *Lecture Notes in Computer Science* 4825: 367–380.

Redden, C. (2010). Social bookmarking in academic libraries: Trends and applications. *College and Research Library News* 36 (3): 213–227.

Solomon, G., & Schrum, L. (2007). *Web 2.0: New tools, new schools*. Washington. D.C.: International Society for Technology in Education.

Stanworth, P. (n.d). Oxford University's Online Tool Guide. Retrieved November 13, 2013

from <http://www.oucs.ox.ac.uk/ltg/teachingwithtechnology/TG-socialbookmarking.pdf>

Idowu Adegbilero-Iwari is a Librarian at the Medical Library, Afe Babalola University, Ado- Ekiti, Nigeria.

He can be contacted at adegbileroiwari@gmail.com. **Joseph Kehinde Fasae** is of the University library,

Afe Babalola University, Ado-Ekiti, Nigeria. He can be reached at kennyfash@yahoo.com. **Oluwaseun E.**

Adegbilero-Iwari is with the college of Medicine, Afe Babalola University, Ado-Ekiti, Nigeria.