

Gender Differences in the Awareness and Use of Social Bookmarking Sites by Faculty of Engineering Colleges in Puducherry, India

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Abstract - In the advent of online technologies, most of the information resources available in the form of digital. So the Faculty may be able to replace or supplement printed information sources with social bookmarking sites. This study reported awareness and use of social bookmarking services by faculty of engineering colleges at Puducherry union territories. The survey research design was employed and questionnaire was used to collect data and SPSS statistical tools used for analyzing the data. This study found that the faculty are largely (70.5%) aware of social bookmarking services. Their familiarity with and usage of the services were very low as very little proportions of the respondents from female faculty members. Most of the proposed null hypotheses are accepted.

Keywords: Social Bookmarking, Engineering Colleges, LibraryThing, Delicious.com, Digg, BibSonomy, Social Media, CiteULike, Elium.online Resources, Social Media, Online Education

I. INTRODUCTION

Retrieving the scientific information has progressed enormously both qualitatively and quantitatively during the last two decades due to the improvement in discovering tools -alert services, databases, meta search engines, online catalogues, publisher platforms, and so on together with the increase in the amount of electronic information available to end users. Among the most recent developments in the creation and communication of information in electronic format are the social media, a term that refers to a set of web tools that allow the creation and exchange of user-generated content. Social bookmarking sites can help shift the focus from a final product to the experience of inquiry, as well as repositioning research as active dialog. The social bookmarking enables the quick and easy bookmarking of the various informal conversations that lead to formal research ideas.

According to Behan and Boylan (2009) social bookmarking sites should be considered by instructors in higher education because it brings together traditional one-way strategies of information dissemination, but it also permit to sharing, evaluation of links and online catalog of hyperlinks. In essence, Most of the social bookmarking applications permit individuals to vote on a link's usefulness or comment on the accuracy of the information it conveys. Because of this interaction, social bookmarking has been considered as one of the most powerful Web 2.0 tools for higher education (Page & Ali, 2009). However, social bookmarking may be

the least known form of social media applications by students today (Grosbeck, 2008). Nowadays the higher education, exposure to conversation in context (blogs, tweets, discussion) breaks down academic barriers by helping their understanding of research as an active conversation.

This study will shows, how faculty of engineering colleges are familiar with students are with the concept of social bookmarking and to explore their reactions to using the social media application after using social bookmarking sites for supplemental course readings and their research.

A. Social Bookmarking Sites

1. *Library Thing*: is a social cataloguing web application for storing and sharing book catalogs and various types of book metadata. It is used by authors, individuals, libraries, and publishers. Library Thing was developed by Tim Spalding and went live on August 29, 2005. As of April 2018, it has about 2,285,000 users and 125 million books catalogued. ("Zeitgeist Overview". Library Thing)

2. *Elium*: It is previously referred to as Knowledge Plaza, is Software as a Service used for enterprise knowledge sharing within organisations. It supports use cases for knowledge management, social bookmarking, document management, wikis and internal social network. It was initially designed as an information management tool for knowledge workers and is often used for collaborative research projects, market intelligence, information brokerage, etc.

3. *CiteULike*: It is a web service which allows users to save and share citations to academic papers. Based on the principle of social bookmarking, the site works to promote and to develop the sharing of scientific references amongst researchers. In the same way that it is possible to catalog web pages or photographs, scientists can share citation information using CiteULike. CiteULike developed by Richard Cameron in November 2004 and in 2006 Oversity Ltd.

4. *BibSonomy*: It is a social bookmarking and publication-sharing system. It aims to integrate the features of bookmarking systems as well as team-oriented publication management. It was developed in 2006. BibSonomy offers

users the ability to store and organize their bookmarks and publication entries and supports the integration of different communities and people by offering a social platform for literature exchange.

5. *Diigo*: It is a social bookmarking website that allows signed-up users to bookmark and tag Web pages. The name is an acronym from “Digest of Internet Information, Groups and Other stuff” Additionally, it allows users to highlight any part of a webpage and attach sticky notes to specific highlights or to a whole page.

6. *Delicious*: It is a social bookmarking web service for storing, sharing, and discovering web bookmarks. The site was developed by Joshua Schachter and Peter Gadjokov in 2003 and acquired by Yahoo in 2005.

II. REVIEW OF LITERATURE

Farwell and Waters (2010) studied Delicious social bookmarking sites, can be used in a course to provide an inexpensive answer to the question of rising course materials costs. They conducted 53 students registered in a “Social Media and Public Relations” course revealed their apprehension of unknown technology and discussed their positive and negative experiences with using the course-specific Delicious account. This study explained the implications for how social bookmarking can impact online and offline learning are discussed.

Etches-Johnson (2006) analyzed social bookmarking may also be a tool that will allow faculty and students to cut down on costs while getting the most up-to-date information. Diigo, serve as repositories for user bookmarks as much as the Internet browser bookmark ability does. This study indicates these sites are online and not linked to a specific computer; the information becomes available from any computer with Internet access.

Vander Wal (2007) developed the term, “folksonomy,” to describe the phenomenon seen on social bookmarking sites whereby one common Web site is described using hundreds of different labels or tags based on the differing perspectives and languages. For example, a search for “blog” would only return links that were tagged with the “blog” label even though relevant information may also appear under the “blogs,” “blogging,” “blogger,” and “blogosphere” tags. Despite these limitations, social bookmarking has been identified as one of the best social software resources for instructors.

Grosseck (2008) felt that most students are still largely unaware of social bookmarking and the impact that it could have on their educational experiences. Jeysankar, Nachiappan & Suresh (2016) were analyzed Social Networking Sites (SNSs) are very useful to connect the people in today's society. They investigated the access to and use of social networking sites among the post graduate students of rural colleges in India. The found that most of

the respondents have excellent skills in using social networking sites for sharing and communicating information. Madhusudhan & Ashraf (2018) carried out the study twelve central universities in north India. They conducted 720 research scholars, the study found that most of research scholars used for the purpose to organs the research oriented resources.

Further, identified Library Thing is the most used SBS for building a personal library with links, pages, notes, and pictures and also recommended that university libraries should help the research scholars to locate required resources and stresses upon the responsibility of library professionals and research supervisors to motivate the research scholars to effectively use SBSs for their research work. The above literature, no study found that faculty of engineering colleges. So the current study seeks to examine how faculty members in engineering colleges in Puducherry union territory view social bookmarking in relation to the learning process through the following objectives.

III. OBJECTIVES OF THE STUDY

1. To find out the awareness and use of social bookmarking sites by among faculty members of engineering colleges in Puducherry union territories;
2. To identify the access to using social Bookmarking sites by genderof the faculty members in engineering colleges in Puducherry union territories;
3. To identify the benefits of the faculty members using social Bookmarking sites and
4. To identify problems associated with the use of social Bookmarking sites.

A. Hypotheses

1. There is no association between the genders of the respondents in Access to Using Social Bookmarking sites
2. There is no association between the genders of the respondents in Purpose of Using Social Bookmarking sites.

IV. METHODOLOGY

Puducherry was one of the French Colony of India; presently it is one of the union territory of India. A well-structured questionnaire was prepared and personally distributed among 200 faculty members working in engineering colleges in Puducherry. Pud union territory of India. Out of 200 distributed questionnaires, 141 (70.5%) responded that they are aware and using social bookmarking sites. The 141 questionnaires were analyzed and the implications of the findings are discussed in relation to past research.

V. DATA ANALYSIS AND INTERPRETATION

Table I disclose the distribution of the questionnaire among faculty members of Engineering Colleges in Puducherry.

TABLE I AWARENESS ABOUT SOCIAL BOOKMARKING SITES

| S. No. | Awareness | No. of Respondents (N=141) | % |
|--------|-----------|----------------------------|-------|
| 1 | Yes | 141 | 70.5% |
| 2 | No | 69 | 34.5% |
| Total | | 200 | |

A total of 200 questionnaires were distributed among the faculty members of Engineering Colleges in Puducherry. It is noticed that, 70.5% aware of social bookmarking sites. 34.5% respondents are not aware of social bookmarking sites.

TABLE II AWARENESS OF SOCIAL BOOKMARKING SITES BY GENDER- WISE RESPONDENTS

| S. No. | Awareness | No. of Respondents (N=141) | % |
|--------|-----------|----------------------------|-------|
| 1 | Male | 91 | 64.5 |
| 2 | Female | 50 | 35.5 |
| Total | | 141 | 100.0 |

TABLE IV ACCESS TO USING SOCIAL BOOKMARKING SITES BY GENDER- WISE RESPONDENTS

| S. No. | Access | No. of Respondents (N=141) | | % | F | Sig. | t |
|--------|---------------|----------------------------|------------|--------------|-------|------|------|
| | | Male | Female | | | | |
| 1 | Delicious | 38 (13.5%) | 19 (27.0%) | 57(40.4%) | 1.417 | .236 | .866 |
| 2 | Elium | 11(7.8%) | 7(5.0%) | 18 (12.8%) | | | |
| 3 | CiteULike | 18(12.8%) | 7(5.0%) | 25(17.7%) | | | |
| 4 | BibSonomy | 8(5.7%) | 4(2.8%) | 12 (8.5%) | | | |
| 5 | Diigo | 8(5.7%) | 6(4.3%) | 14(9.9%) | | | |
| 6 | Library Thing | 8(5.7%) | 7(5.0%) | 15 (10.6%) | | | |
| Total | | 91 (64.5%) | 50 (35.5%) | 141 (100.0%) | | | |

Table IV show the distribution of gender – wise respondents of access to using social network sites. Out of total 141 respondents who have accessed Delicious 13.5% (38) are male respondents and 27.0% (19) are female respondents. So we found that maximum number of faculty members accessed the social Bookmarking sites.12.8% (18) male respondents are accessed CiteULike.

Further it is noticed that, equal number of female respondents 5.0% (7) Elium, CiteULike and Library Thing of Engineering Colleges in Puducherry. Again BibSonomy, Delicious and Library Thing 5.7% (8)14 were equally accessed by male faculty members of Engineering Colleges in Puducherry.

In all ranges of Social Bookmarking sites, male respondents have published more papers than their female counterparts.

H₀: There is no association between the genders of the respondents in Access to Using Social Bookmarking sites.

With regard to Gender - wise distribution of respondents in Table II out of 141 respondents, 91 (64.5%) respondents are Male and 615 (35.5%) respondents are Female. It is also observed that Male respondents outnumbered Female respondents.

TABLE III AWARENESS OF SOCIAL BOOKMARKING SITES DEGREE - WISE RESPONDENTS

| S. No. | Degree | No. of Respondents (N=141) | % |
|--------|--------|----------------------------|-------|
| 1 | Ph.D | 18 | 12.8 |
| 2 | ME | 123 | 87.2 |
| 3 | BE | 0 | 0.0 |
| Total | | 141 | 100.0 |

Table III depict the distribution of degree wise respondents' awareness of social Bookmarking sites. As far as the educational qualification is concerned, 123 (87.2%) respondents are having M.E degree, 18 (12.8%) Faculty members having Ph.D degree. It is interesting to note that a majority of the respondents are M.E degree holders no B.E. degree holders.

In terms of Gender wise distribution of respondents, the chi-square calculated value is 1.417, Sig= .236 and t = .866 which is greater than 0.05. It accepts the null hypothesis. Hence it can be said that there is no relation between the genders of the respondents in Accessing Social Bookmarking sites.

Table V depicts the Gender- Wise respondents in Purpose of Using Social Bookmarking sites among the faculty members of Engineering Colleges in Puducherry. It shows the most of the faculty members responded "Tag for easy Searching" 44 (31.2%). It was found that 25 male respondents (17.7%), 19 female respondents (13.5%) used for the purpose of "Tag for easy Searching" followed by "Import or export bibliography" male faculty members are 22 (15.6%) and female faculty members are 9 (6.4%). The least known variable for the Purpose of Using Social Bookmarking sites by Gender - wise respondents are "Store web pages for future use and Build personal library with links, pages, notes, pictures"

TABLE V PURPOSE OF USING SOCIAL BOOKMARKING SITES BY GENDER- WISE RESPONDENTS

| S. No. | Purpose | No. of Respondents (N=141) | | % | F | Sig. | t |
|--------|-------------------------------------------------------------------|----------------------------|-----------|-------------|-------|------|-------|
| | | Male | Female | | | | |
| 1 | Tag for easy Searching | 25 (17.7%) | 19(13.5%) | 44(31.2%) | 1.020 | .314 | -.283 |
| 2 | Import or export bibliography | 22(15.6%) | 9(6.4%) | 31(22.0%) | | | |
| 3 | Save, Organize and discover interesting links on the web | 13(9.2%) | 6(4.3%) | 19(13.5%) | | | |
| 4 | Share and recommend sites and information | 12(8.5%) | 4(2.8%) | 16(11.3%) | | | |
| 5 | Use annotation tools, handy digital highlighters for easy reading | 7(5.0%) | 4(2.8%) | 11(7.8%) | | | |
| 6 | Store web pages for future use | 6(4.3%) | 4(2.8%) | 10(7.1%) | | | |
| 7 | Build personal library with links, pages, notes, pictures | 6(4.3%) | 4(2.8%) | 10(7.1%) | | | |
| Total | | 91(64.5%) | 50(35.5%) | 141(100.0%) | | | |

H_0 : There is no association between the genders wise distribution of Purpose of Using Social Bookmarking sites.

In terms of Gender wise distribution of respondents, the chi-square calculated value is 1.020, Significance = .314 and t =

.866 which is greater than -.283. It is accepted the proposed null hypothesis. Hence it is shows that there is no significant relation between the genders wise distribution of the respondents in Purpose of Using Social Bookmarking sites.

TABLE VI BENEFITS OF USING SOCIAL BOOKMARKING SITES BY GENDER- WISE RESPONDENTS

| S. No. | Benefits | No. of Respondents (N=141) | | % | F | Sig. | t |
|--------|----------------------------------|----------------------------|-----------|-------------|-------|------|-------|
| | | Male | Female | | | | |
| 1 | Easy retrieval through Tags | 21(14.9%) | 11(7.8%) | 32(22.7%) | 1.915 | .169 | 1.058 |
| 2 | Anytime anywhere access | 34(24.1%) | 16(11.3%) | 50(35.5%) | | | |
| 3 | Resource Discovery | 8(5.7%) | 2(1.4%) | 10(7.1%) | | | |
| 4 | Collaboration and Sharing | 4(2.8%) | 3(2.1%) | 7(5.0%) | | | |
| 5 | Up - to – date information | 4(2.8%) | 32.1% | 7(5.0%) | | | |
| 6 | Easy recall | 4(2.8%) | 3(2.1%) | 7(5.0%) | | | |
| 7 | Store Information While Browsing | 4(2.8%) | 3(2.1%) | 7(5.0%) | | | |
| 8 | Storing online bibliographies | 4(2.8%) | 3(2.1%) | 7(5.0%) | | | |
| 9 | Classification | 4(2.8%) | 3(2.1%) | 7(5.0%) | | | |
| 10 | Professional recognition | 4(2.8%) | 3(2.1%) | 7(5.0%) | | | |
| Total | | 91(64.5%) | 50(35.5%) | 141(100.0%) | | | |

A total of 10 variables have been identified as the benefits of Using Social Bookmarking sites. The overall response of all the respondents irrespective of the Engineering Colleges in Puducherry is presented in the Table VI. Based on the percentile values, we have identified and presented in the table 6. The benefit of Using Social Bookmarking sites differs from person to person. It is obvious from the table that, 34 (24.1%) male and 16 (11.3%) female respondents had benefits of “Anytime anywhere access” and followed by 21 (14.9%) male and female faculty members are benefited in by the using variables “Easy retrieval through Tags”.

H_0 : There is no association between the genders wise distribution of Benefits of Using Social Bookmarking sites. In terms of Gender, the chi-square value when calculated is 1.915, Significance = .169 and t = .866 which is greater than

1.058. It accepts the null hypothesis. Hence it can be said that there is no association between the genders of the respondents in Accessing Social Bookmarking sites.

Social Bookmarking sites have brought few problems with their use. A list of five main problems were identified and presented in the Table VII. It is clear from the responses received that most of the respondents responded “Finding Good Bookmarks” is 54 (38.3%). Out of 38.3%, base the problem is 39 (27.7%) are male and female are 15(10.6%). Further it is interestingly noticed that “Difficult to use interface” 21 (14.9%) male respondents are high comparatively 3 (2.1%) female respondents. It is also we can identified in the variable “Bookmark Management” female 15 (10.6%) respondents more comparatively 14 (9.9%) male respondents.

TABLE VII PROBLEMS OF USING SOCIAL BOOKMARKING SITES BY GENDER- WISE RESPONDENTS

| S. No. | Problems of Using (SBSs) | No. of Respondents (N=141) | | % | F | Sig. | t |
|--------|--------------------------------|----------------------------|-----------|-------------|-------|------|-------|
| | | Male | Female | | | | |
| 1 | Finding Good Bookmarks | 39(27.7%) | 15(10.6%) | 54(38.3%) | 1.218 | .272 | 2.881 |
| 2 | Difficult to use interface | 21(14.9%) | 3(2.1%) | 24(17.0%) | | | |
| 3 | Bookmark Management | 14(9.9%) | 15(10.6%) | 29(20.6%) | | | |
| 4 | Locating appropriate bookmarks | 14(9.9%) | 12(8.5%) | 26(18.4%) | | | |
| 5 | Spamming | 3(2.1%) | 5(3.5%) | 8(5.7%) | | | |
| Total | | 91(64.5%) | 50(35.5%) | 141(100.0%) | | | |

TABLE VIII PROBLEMS OF USING BROWSER BOOKMARKING

| S. No. | Problems (SBSs) | No. of Respondents (N=141) | Percent |
|--------|-------------------------------|----------------------------|---------|
| 1 | No organisation | 135 | 95.74 |
| 2 | No categorization | 135 | 95.74 |
| 3 | Lost links | 131 | 92.91 |
| 4 | Device and browser dependence | 139 | 98.58 |
| 5 | Difficulty in retrieval | 122 | 86.52 |
| 6 | Virus | 133 | 94.33 |
| 7 | No social structure | 138 | 97.87 |

Table VIII reveal that the problems of using browser bookmarking among the faculty members of Engineering Colleges in Puducherry. It is observed from the table, that lack of Device and browser dependence bookmarks is the mainly concern of the respondents (98.58%) followed by No social structure (97.87%), both No organisation and No categorization (95.74%).

VI. DISCUSSION AND CONCLUSION

Considering all the comments expressed by the faculty members, it found that using social bookmarking in an educational set up, because social bookmarking's are very beneficial for faculty members in organizing, categorizing and sharing the research related online information resources with the help of tags and accessed with the help of RSS feeds, mobile phones and PDAs foe increased. The study reveals the 70.5% of respondents aware about the social bookmarking sites among the engineering faculty members. Build personal library with links, pages, notes, pictures etc. Social bookmarking services are useful to the engineering faculty' academic work. This type of study helpful to connect the people with same subject peer groups is the most beneficial feature of social bookmarking services to the faculty members. Also, the faculties members find the web search and bookmark information sharing features of the services are also beneficial. Further, it may be beneficial to share the information, thoughts and opinions of social bookmarking sites thus providing a picture from a faculty perspective.

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