A Study on the Usage of Web Resources and Services by Faculty Members of Engineering and Technology Institutions in Tamil Nadu

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Abstract

The main focus of the study is to describe the needs, requirements and use of electronic information sources especially scholarly information and analyzes the same in the Engineering colleges. The progress of any subject is impeded unless new knowledge generated by research flow freely, quickly and timely among the user community. As information system, therefore, must bring into attention the newly information by its very nature is perishable. Hence assessments of user needs are very important task of any efficient information system so that information needs of users may be identified and the information available in different types of formats and through a variety of channels may be provided to the users

Keywords

Information Sources and Services, information and communication technology, Web Resources.

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INTRODUCTION

Information played an important role in all societies since the dawn of civilization. However, in recent years its increase in volume and accuracy as well as greater access, have significantly elevated its value in all aspects of social life. The world is undergoing an Information Communication Technology (ICT) revolution, a revolution that has enormous socio-economic implications for the developed and developing countries. Information and Communication Technologies form part of the functions of today's complex society. Without this, the present society would be inarticulate chaos devoid of direction and technology floods us with information and entertainment. The influence is tremendous in decisions of government, leap over national frontiers and stimulate trends in society especially in the field of education. ICT comprises a diverse set of technological tools and resources to create, disseminate, store and manage data and information.

REVIEW OF LITERATURE

Dhanavandan et al. (2008)[1] found there is no significant relationship between the use of e-mail and Internet and gender or between age (below or above 40) and the use of ICT, although there is some variation. Archita Nanda (2012) [2] found o*nly 28%* respondents were Skillful in using Software programs. There was a mixed response regarding use of different Assistive technology and devices for the students with disabilities. Most of the respondents refer text books, reference books, newspapers, magazines, and dictionaries to meet their information needs. Prasad, C. et al.(2015)[3] conducted the study results from the study shows that lack of funding, lack of ICT integration and lack of connectivity were found to be most critical barriers to the use of ICT in secondary schools. Three barrier-factors were extracted: lack of support, lack of ICT infrastructure and lack of motivation and self belief from factor analysis. Drachen and Asger (2011)[4] conducted their study on Information behaviour and practices of PhD students. The study consisted of a survey and interviews focused on the PhD students at three universities. The study recommended to provide specialized and to the point course at the beginning of PhD, libraries should teach PhD students the most efficient methods for searching early in their studies, to provide dedicated PhD work space etc. Mostofa (2013)[5] conducted a study at Darul Ihsan University (DIU), the teachers of various faculty members were

interviewed. Results show that half of the faculty members are consulted with expert as communication channel when they have a question asked. More than 50 % of faculty members depend on the library resources for teaching purpose. Ngozi, Uche and Ejiro (2015)[6] investigated information seeking behaviour of faculty members of the Federal University of Petroleum Resources (FUPRE). The research finding show that the respondents use books, as their preferred source of information. They suggested improving the internet facilities to assist faculties in their research.

STATEMENT OF THE PROBLEM

The study well help the library to measurement the usage of e-resources, to plan for a better promotion and e- resources delivery model to achieve the goal of investing in e-resources. The major components for the successful implementation of e-resources service are the uses, adequate resources, infrastructure, promotional campaigns, user training and staff support. The present research highlights all the aspects of the **use of e-resource by faculty members of Engineering colleges in Chennai** besides serving as an indicator for strengthening the existing system, Hence it was felt to select the problem as a strong point to conduct research and to report the outcomes.

OBJECTIVES OF THE STUDY

The research objectives of the study are listed below:

1. To find out the level of a usage of electronic information by faculty members of the selected Engineering colleges surveyed.
2. To analyze the awarness on digital resources among the respondents
3. To identify the electronic information services offered by the library of the selected Engineering colleges surveyed.
4. To find out the barriers faced by the respondents in accessing electronic information sources.

HYPOTHESES FOR THE STUDY

In order to fulfill the above objectives, the following research hypotheses were formulated and tested with suitable tools in the respective chapters.The hypotheses are:

1. Ho – There is no significant difference among the respondents of the three Engineering colleges in their academic/ research outputs.
   HI – There is significant difference among the respondents of the three Engineering colleges in their academic/research outputs.
2. Ho – There is no significant difference among the rating of the respondents of the three Engineering colleges in their satisfaction levels on information sources provided by the libraries.
   HI – There is significant difference among the rating of the respondents of the three Engineering colleges in their satisfaction levels on information sources provided by the libraries.
3. Ho – There is no significant difference among the rating of the respondents of the three Engineering colleges towards the information flow in the area of their specialization.
   HI – There is significant difference among the ratings of the respondents of the three Engineering colleges towards the information flow in the area of their specialization.

SCOPE OF THE STUDY

The study is undertaken to explore the use pattern of electronic information, the infrastructure environment existed, access to Information Technology (IT) devices and E-Resources in the surveyed Engineering colleges by the respondents and to find the ways and means to promote the existing system. The research covers the faculty members, who are working in permanent basis pursuing their practices in full time of the three Engineering colleges only, staff other than teaching in full time basis and post graduate students are not covered for this study, since their electronic information needs and quality varies.

Sample size: The total population comprises both faculty members of 800. Sample of 333 respondents of faculty members with difference age groups, qualifications, gender, experience and specialization were taken for this study. 540 well structured questionnaires were distributed for collecting the data, out of which, 333 were returned duly filled in with the response rate of 62%

Sampling technique: The researcher adopted random sampling method. The researcher has visited all the three Engineering colleges and collected the list of faculty members from the concerned departments and arranged their name in the alphabetical order. Lottery method was adopted for selecting the respondents.

Tools adopted for data collection: The investigator has rightly chosen questionnaire method, in which each statement was prepared after extensive discussion with experts in the Library and Information Science and its research.

ANALYSIS OF DATA

Data collected from the respondents were analyzed using Statistical Package for Social Science (SPSS). Mean, Standard Deviation, Percentile analysis, ANOVA (Analysis of Variance) test and Weighted Average Method were carried out for analyzing the data. Weighted Average Method followed based on the ratings assigned by respondents such as:

- Excellent and Highly Satisfied – 5 Points
- Very Good and Satisfied – 4 Points
- Good and somewhat satisfied – 3 Points
- Average and Less satisfied – 2 Points
- Below Average and very less satisfied – 1 Point

FINDINGS

The details of the findings based on the analyzing are presented under the following there:

1) Socio-Demographic and Academic fact
2) Library and Resource Facilities
3) Approach and priority of Information Resource Facilities
4) Use and Meaning of E-Resources Access
5) Search strategy and Limitation in accessing the Internet
6) User satisfactions on Electronic Information Sources.

I. Socio-Demographic and Academic Facts

Age-Wise Classification of the Respondent: 45% of the respondents in ZONE-3 college of Engineering and Technology were in It age group of 20-30 years. The age of the respondents range between 20 to 60. 45% of the respondents in ZONE-3 were in the age group of 20-30 years. In ZONE-1 and ZONE-2, again the age group of 20-30 dominated with (53.7%) and 36% respondents. Combining all age group falls between 20-30 from the highest with 47.3% followed by the age group of 41-50 form the next highest and 31-40 age group constituted 16.9%. The final picture was that 51 and above age group constituted (16.08%)

- **Qualification:** It is found that 14(0.42%) of the respondents in ZONE-3 have M.E whereas, 19(0.35%) ZONE-1 were having M.E and 16(0.64 from ZONE-2) have M.E. Thus from the overall opinion that 49(0.43%) of the respondents have M.E followed by 35(0.31%) M.Tech and 28(0.25%) have Ph.D qualification.
- **Designation**: It is found that 63% of the respondents in were AP and only 20% were professions. In ZONE-1 and ZONE-3 (48% 48%) and 36% were AP. To survey majority of the respondents (52.67) were AP and 15.17% were lectures, which is the least percentage of respondents.

Experience: It is identified that majority of the respondents (72%) belong is to ZONE-3 were having 1-10 years tearly experience, (68%) in ZONE-1 were also having (1-10) experience. Again, the respondents of ZONE-2 also depict the same scene with majority of (64%). Combining all the colleges, 1-10 years of Tearly experience from the majority (68.75%) and only 0.0% was having above 30 years tearly experience.

Genderwise: It is found that male respondents in ZONE-3 dominated with (75%) again (72%) of the respondents for ZONE-1 and (84%) for ZONE-2 were also male respondents. To sum up, male respondents dominaded with (75.90%) while 24.10% formed female respomdent from all the three surveyed colleges.

Electronic Resources in the central libraries:

E-books on CD: IT is found that ZONE-3 was having more e-books on CDs followed by ZONE-1, ZONE-2 occupied the last position.

E-books on web: When comparison was made for e-books on web, it is identified that ZONE-1 have more collection of e-bools on web followed by ZONE-2, ZONE-3 was lagging behind the other two surveyed colleges.

E-Journals on CDs: When compared for e-journals on CDs, ZONE-1 followed by ZONE-2 have more collection of e-journals on CDs, while ZONE-3 was lagging behind the other two surveyed colleges.

E-Journals on web: When compared the total value of three colleges with each college, ZONE-1 followed by ZONE-2 have more collection of e-journals on web than ZONE-2.

CD-Databases (Indexing and Abstracts) When comparing the total mean value with each college, it was found that ZONE-1 was having more collection of CD-databases. ZONE-2 was having next highest collections followed by ZONE-3.

CD-Databases on web: ZONE-1 was having more collection of CD databases on web than ZONE-3 and ZONE-2 stood the last position.

Methods of Finding Academic / Research related Websites

It is revealed from the table- that in ZONE-3, majority of the respondents (75%) opined that they identified the academic and research related websites through search engines followed by colleague (54%) and only 9% opined that they approached library staff, while in ZONE-1, majority of the respondents (85.18%) expressed that they approached the search engines followed by 44.54% and only 14.8% stated that they approached the library staff and in ZONE-2 also the same trend was continuing as majority of the respondents (84%) and (64%) approached the search engine and colleagues –respectively and only 1.78% approached library staff.The find picture shows that majority of the respondents (82%) and (51.78%) approached the search engines and colleagues respectively for also training academic/research related websites and only 11.6% stated library staff. Also that approaching method for obtaining academic/research related websites in each university and overall average were coinciding.

Approaching Method in Web for Retrieving relevant Information

It is identified that in ZONE-3 majority of the respondents (54%) opined that they accessed relevant information by assigning keywords and website adverse followed by spending journal mane in the web (45%) and only 12% stated though subject gateways/directories, On the other hand, in ZONE-1, majority of them (62.96%) stated that they approach website's address followed by journals name (61.11%), and only 5% stated that they approached authors for retrieving relevant information and in ZONE-2, again majority of the respondents (76%) stated that they approached keyword Followed by assigning journal's name by 44% and only 12% stated that they approached using subject gateways / directories. To sum up, majority of the respondents from all the three colleges have approached key words 7.14%), website address (54.46%) and journals name (52.67%) respectively and only 10.71% stated that they approached subject gateways / directories.

VI. User Satisfaction on Electronic Information Resources

Satisfaction on electronic information

It is understand that majority of the respondents (87%) from ZONE-3 (85%) from ZONE-1 and (84%) from electronic information. It can be observed from the over all opinion that majority of the respondents (85.7%) from all the colleges were satisfied with electronic information and only 14.3% stated that they were not satisfied.

Rating information sources

Finding of the rating assigned by the respondents of three colleges are listed below.

Internet: ZONE-3 and ZONE-2 respondents rating the source as good, where as ZONE-1 respondents rated as average, Hence, it is identified that there is significant difference among the rating of the respondents on Internet source in the surveyed colleges.

CD-ROM/DVDs: Respondents of three colleges rated the CD-ROM/DVDs sources as good revealed thus weighted average of each college is more or less equal to total weighted average. Therefore, it is concluded that there is no significant difference among rating of the respondents. On CD-ROM/DVDs in the surveyed colleges.

Electronic Journals: It is revealed that ZONE-3 respondents rated the e-journals source as very good, where as ZONE-2 and ZONE-1 respondents rated as good. Hence, it can be inferred that there is significant difference among the rating of the respondents on e-journal sources.

Electronic Databases: When comparison was made among the three colleges, ZONE-3 respondents rated as very good. Whereas ZONE-1 and ZONE-2 respondents rating as good, when compared with total score. Hence, it is found that there is significant difference among the rating of the respondents on e-databases in the college libraries.

Audio/Video cassettes: It is found from the comparison that ratings of the respondents of all the three colleges on audio/video cassettes were very good and also each individual college respondents. Hence there is no signified difference among the rating of the respondents on audio/video cassettes.

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