

Exploit of Electronic Journals in engineering college libraries – A users study

Dr. K. Kumar

Librarian, SVCET Chittoor

Corresponding author's email: Kumarkkutty@gmail.com

Abstract

The changing impact of information environment on the students of science and Technology, find themselves a new change. Due to advancement in the application of ICT changed the way of people in communication, interacting, acquiring and sharing knowledge. In this direction a survey has been conducted. Electronic Journal is the new concept where users are not only information consumers but also content creators. This paper addresses the use and impact of e- journals on the Library users. An online survey was conducted among students of engineering college libraries users to observe their perception towards electronic journals.

Keywords: users, e- Journals, ICT applications.

Introduction

With the application of Information and Communication Technology (ICT), particularly the Internet, there has been a shift from traditional print journals to online journals. The number of peer reviewed online journals increased by over 570 times between 1991 to 2000. Print journal refers to conventional print editions published and distributed as paper copies and online journals refer to journal editions available online through computer networks (Internet). The journal editions available online through Internet are also called electronic journals¹. The emergence of the Internet, particularly the World Wide Web, as a new medium of information storage and delivery represents a revolution which will have a lasting impact on the publishing and information delivery system in the 21st century. An increasing number of publishers are using the Internet as a global way to offer their publications to the international community of scientists and technologists. An electronic only news paper on the web, The Nandi Times² received 5.5 million accesses (clicks) daily 1999. It is estimated that about 2500 online journals are available on open access (free of cost) over the Internet. An online survey was conducted among the engineering college library users of Andhra Pradesh, in order to evaluate their knowledge on electronic journals and its uses.

Electronic Journals

Electronic journals³, also known as *e-journals* and *electronic serials*, are scholarly journals or intellectual magazines that can be accessed via electronic transmission. In practice, this means that they are usually published on the Web. They are a specialized form of electronic document: they have the purpose of providing material for academic research and study, and they are formatted approximately like journal articles in traditional printed journals. Being in electronic form, articles sometimes contain metadata that can be entered into specialized databases, such as DOAJ or OACI, as well as the databases and search-engines for the academic discipline concerned.

About Engineering College in Andhra Pradesh

Andhra Pradesh has the distinction of having leading engineering colleges in India. The state has recently made strides in setting up several institutes. There are a total of 734 engineering educational

institutions in Andhra Pradesh⁴. The state is home to the Indian Institute of Technology Hyderabad, http://en.wikipedia.org/wiki/Andhra_Pradesh - cite_note-63 Tata Institute of Fundamental Research Hyderabad, International Institute of Information Technology, Hyderabad (IIIT-H), National Institute of Technology NIT Warangal. Andhra Pradesh is the domicile to Osmania University⁵, which is one of the oldest modern universities in India. It is one of the largest university systems in the subcontinent with over 300,000 students on its various campuses and affiliated engineering colleges. The Government of Andhra Pradesh has established Rajiv Gandhi University of Knowledge Technologies (RGUKT), in 2008 to cater to the educational needs of the gifted rural youth of Andhra Pradesh. The Institute specializes in teaching and research in Information Technology and other emerging disciplines under the control of a common university Governing Council and following a common syllabus.

Need for the study

The libraries across the India have started showing interest in building e-collections therefore it is necessary to identify the usage pattern of e-journals, e-books and other similar products across the libraries. This study will reveal the users' discernment especially users of library electronic materials and also the initiatives taken-up by the engineering college libraries to promote e-learning.

Objectives

The main objectives of the present study are as follows:

- i. To find out the responsiveness of users' about available online journals.
- ii. To study the purpose and utilization of online journals.
- iii. To find out the frequency of using online journals.
- iv. To describe the emerging role and fit of e-journals in scholarly practice
- v. To understand the range and types of dimensions that shape e-journal usage and to learn how users obtain value from e-journals
- vi. To find out the hindrances and problems faced by the users while accessing and using online journal.
- vii. To study the preferred format for using online journals.

Hypotheses

- i. The e-journals are used widely by the users of the under study
- ii. There exist more impact of e-journals on the scholarly practice

Limitation of the study

- i. The study covers 78 students pursuing engineering courses.
- ii. The study is related to the responses received through online questionnaire for Andhra Pradesh students only (yahoo. group).

Methodology

Keeping in view the above objectives in mind, a structured online questionnaire was prepared to collect data from the users of electronic journals in the Utilization of Online Journals at engineering institutional library users. Online questionnaire contains various questions pertaining to the perception and utilization of electronic journals. For this purpose a total of 100 online questionnaires were distributed through electronic mail (yahoo. group) among Users' who are pursuing Under Graduate, Post-Graduate Engineering courses and research scholars. Out of 100 online questionnaires distributed, 78 (78%) valid online questionnaires were received and then data was analysed, tabulated, interpreted and presented in form of this paper.

Data Analysis and Interpretation

Questionnaires were mailed to users. The received questionnaires were carefully edited tabulated and analyzed. To make the data analysis statistically sound, necessary statistical techniques (diagrams) are used.

Gender Wise distribution

Table 1

Gender-wise Respondents

S.No.	Gender	No of Respondents	Percentage (%)
1	Male	57	73.07
2	Female	21	26.93
	Total	78	100

Table 1 presents the data with regard to the distribution of questionnaires and responses received. Out of 78 respondents, 73.07% (57) are male and 26.93% (21) are female. Gender wise distribution of data is represented through a pie chart (Figure1).

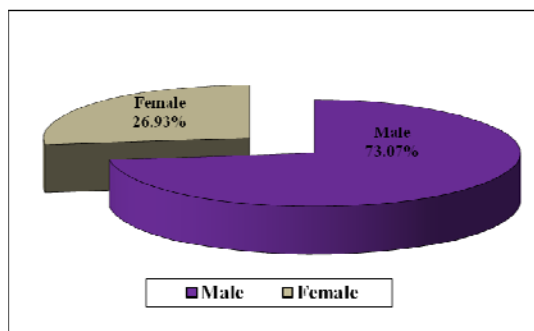


Fig. 1

Gender-wise distribution of respondents

Academic Status

Table 2

Academic Status of the Respondents

S.No.	Academic Status	No. of Respondents	Percentage
1	Under Graduate	48	61.50
2	Post Graduate	19	24.36
3	Research Scholars	11	14.10
	Total	78	100

Table 2 shows that most of the users are from Under Graduate 61.50% following that the Post Graduate 24.36% and only 14.10% are Research Scholars.

Awareness about E-Journals

Table 3

Awareness about E-Journals

S.No.	Awareness	No. of Respondents	Percentage
1	Yes	75	93.59
2	No	3	6.41
Total		78	100

Table 3 shows that users are aware about the E-Journals 93.59% and only 6.41% are not aware.

Frequency of Using the E-journals

Table 4

Frequency of Using the E-journals

S. No.	Frequency	No. of Respondents	Percentage
1	Everyday	9	11.54
2	Once a Week	41	52.56
3	Occasionally	25	32.05
4	Not at all	3	3.85
Total		78	100

Table 4 shows that most of the users are using the e-journals once a week (52.56%), following that occasionally (32.05%), 11.54% Everyday and only 3.85% are not at all using the electronic journals.

Importance of Electronic Journals in Academic

Table 5

Importance of E-Journals in Academic

S.No.	Importance	No. of Respondents	Percentage
1	Very Important	49	62.82
2	Important	17	21.79
3	Not Important	9	11.54
4	I don't know	3	3.85
Total		78	100

Table 5 that majority of students (62.82%) feel that e-journals is very important and 21.79% feel it is important while 11.54% are Not Important, 3.85% are I don't know.

Purpose of Using the E-Journals

Table 6

Purpose of using the E-Journals

S.No.	Purpose	No. of Respondents	Percentage
1	Study	11	14.10
2	Update subject knowledge	19	24.36
3	Project/ Research work	32	41.03
4	Seminar/Conference/workshop	13	16.67
5	No Idea	3	3.85
Total		78	100

Table 6 shows that most of the 41.03% are using the E-Journals for the purpose of Project/Research work following that 24.36% using for Update subject Knowledge and only 3.85% were No idea.

Format Preferred in Using the E-Journals

Table 7

Format Preferred in using the E-Journals

S.No.	Format	No. of Respondents	Percentage
1	HTML	21	26.92
2	PDF	54	69.23
3	No Idea	3	3.85
Total		78	100

Table 7 shows that most of the users are using the e-journals PDF format (69.23%), following that HTML (26.92%), only 3.85% are No Idea.

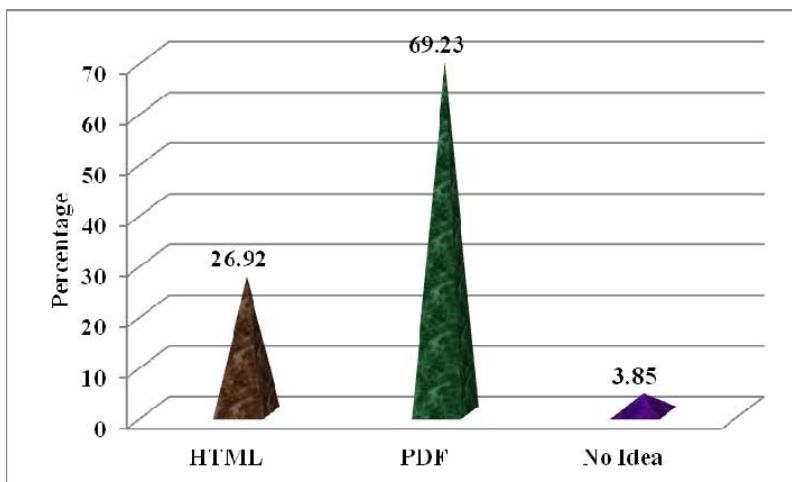


Fig. 1

Format Preferred in Using the E-Journals of respondents

Chi-Square Test for the Role and Fit of E-Journals in Scholarly Practice Vs Gender, Age, Academic Status

Table 8

Chi-Square Test for the Role and Fit of E-Journals in Scholarly Practice Vs Gender, Age, Academic Status

S.No	Role and Fit of E-Journals	Gender (Calculated χ^2 Value)	Age (Calculated χ^2 Value)	Academic Status (Calculated χ^2 Value)
1	E-journals are accountable to the worlds of print and the Internet.	4.165	3.237	3.476
2	E-journals belong to a cluster of technological innovations that shape the way scholars adopt these journals	17.283	1.772	1.872
3	The most significant current source of value from e-journals is in the scholars' ability to search them.	1.943	8.446	8.576
4	Online searching emphasizes the article as container (or structure) of content	23.648	3.122	3.482
	Degrees of freedom	1	1	1
	Table value at 0.05 level	3.841	3.841	3.841

The data in the above table 8 reveals that there is significant relationship between the Age of the respondents and their role of e-journals such as Online searching emphasizes the articles as container of content since the chi-square value 3.122 and academic status (3.482) which is less than table value (3.841) on the other hand there is no significant relationship between gender.

Chi-Square Test for Scholarly Usage of E-Journals: characteristic and Contextually Based Practices Vs Gender, Age, Academic Status.

Table 9

Chi-Square Test for Scholarly Usage of E-Journals: characteristic and Contextually Based Practices Vs Gender, Age, Academic Status

S.No	Characteristic and Contextually of E-Journals	Gender (Calculated χ^2 Value)	Age (Calculated χ^2 Value)	Academic Status (Calculated χ^2 Value)
1	No single pattern of usage predominates for e-journals	4.165	3.237	3.248
2	Scholars craft multiple routines for using e-journals to support a range of information practices.	7.331	0.560	0.572
3	The most significant current source of value from e-journals is in the scholars' ability to search them.	1.583	1.628	1.634

4	E-journal features get blurred with the features of the broader search-and retrieval environment.	9.455	0.770	0.729
Degrees of freedom		1	1	1
Table value at 0.05 level		3.841	3.841	3.841

The data in the above table 9 reveals that there is significant relationship between the Age of the respondents and their role of e-journals such as Scholars craft multiple routines for using e-journals to support a range of information practices since the chi-square value 0.560 and academic status (0.572) which is less than table value (3.841).

Chi-Square Test for Impacts of E-Journals on Scholarly Practice Vs Gender, Age, Academic Status.

Table 10

Chi-Square Test for Impacts of E-Journals on Scholarly Practice Vs Gender, Age, Academic Status

S.No	Knowledge	Gender (Calculated χ^2 Value)	Age (Calculated χ^2 Value)	Academic Status (Calculated χ^2 Value)
1	E-journals improve the efficiency of knowledge and scholarship	0.683	2.134	2.217
2	E-journals facilitate new forms of scholarly practice through new relationships to information, knowledge, and peers	9.455	0.770	0.781
3	E-journals create new kinds of work in scholarly practice.	0.674	2.217	2.282
Degrees of freedom		1	1	1
Table value at 0.05 level		3.841	3.841	3.841

The data in the above table 10 reveals that there is significant relationship between the Age of the respondents and their role of e-journals such as E-journals facilitate new forms of scholarly practice through new relationships to information, knowledge, and peers since the chi-square value 0.770 and academic status (0.781) which is less than table value (3.841).

Chi-Square Test for Insights on E-Journal Adoption and Implications for the Future Vs Gender, Age, Academic Status.

Table 11

Chi-Square Test for Insights on E-Journal Adoption and Implications for the Future Vs Gender, Age, Academic Status

S. No	Adoption and Implications for the Future	Gender (Calculated χ^2 Value)	Age (Calculated χ^2 Value)	Academic Status (Calculated χ^2 Value)
1	E-journals are part of a cluster of innovations and technologies that can be leveraged to create value for scholars.	25.708	0.417	0.419
2	Scholars work in an integrated media environment,	1.583	1.628	1.674

	with synergies between paper and electronic journals Scholars obtain more value from e-journals when the			
3	journals support a wide range of information practices	17.283	1.772	1.789
4	E-journals offer different types of value for searching, reading, and publishing	2.648	1.628	1.621
5	The zone between informal publicizing and formal publication is a rich and critical area for scholarly communications.	24.312	2.138	2.137
6	E-journals challenge the notion of journal brand.	0.417	14.766	13.548
	Degrees of freedom	1	1	1
	Table value at 0.05 level	3.841	3.841	3.841

The data in the above table 11 reveals that there is significant relationship between the Age of the respondents and their role of e-journals such as Scholars work in an integrated media environment, with synergies between paper and electronic journals since the chi-square value 1.628 and gender 1.583, academic status 1.674 which is less than table value (3.841).

Table 12
Constraints in using the E-Journals

S.No.	Constraints	No. of Respondents	Percentage
1	Inadequate Infrastructure	5	6.41
2	Very short Time	62	79.49
3	Low Speed of Internet	7	8.97
4	Power Failure	1	1.28
5	Lack of Awareness	3	3.85
	Total	78	100

Table 12 shows constraints that most of the users are very short time (79.49%), following that Low speed of Internet (8.97%), 16.41% Inadequate Infrastructure and only 1.28% are Power failure.

Conclusion

The advancement in Information Technology and electronic journals are reshaping knowledge acquiring and knowledge sharing practices. Wide spread use of computers, increased reliability on electronic journal, rapid growth of internet and its services have more impact on e-learning process. Platforms are very useful for student community, to share, discuss and comment on various topics and issues. It is concluded from the study that the students in engineering institutional library users are aware and impact with the modern concepts electronic journals. They use these concepts. But they hardly implement it as for as rendering of library services are concerned.

References

- About e-Journals.* (2001). from www.en.wikipedia.org Web Site: www.en.wikipedia.org/wiki/Electronic_journal
- Andhra Pradesh engineering education details.* (2012). from en.wikipedia.org Web Site: http://en.wikipedia.org/wiki/Andhra_Pradesh
- Electronic Journals.* (1999). from www.ejust.stanford.edu Web Site: www.ejust.stanford.edu/findings/fullcover_0801.pdf
- Engineering colleges list available.* (2012). from www.andhracolleges.com Web Site: <http://www.andhracolleges.com/colleges/district-wise.aspx?type=Engineering>
- Sussman, V (1999). Gold rush in cyberspace. *US News and World Report.* 117 (19), p.72-80.