

# Awareness of Electronic Resources among the Research Scholars of Anna University of Technology, Coimbatore and its Affiliated Colleges

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## Abstract

The study investigated the awareness of electronics resources by the research scholars of Anna University of Technology, Coimbatore and its affiliated colleges. It examined the research scholar's awareness of the resources available, the type of resources provided by the library. Findings reveal that the most of the researchers are satisfied with E-resources available in their institutions. Some of the research scholars felt that they need orientation to use them.

**Keywords:** Digital Libraries/ E-resources, usage pattern; research scholars, awareness.

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## Introduction

In this digital age, Information is a dynamic and valuable resource that effects all the disciplines of academic curricula and every walk of life. Over the last decade, electronic resources have become increasingly substantial components of academic libraries. This is due to the growing development of information technology and its impact on collection development policies in Libraries. Changing trend of users' need for the pin pointed and exhaustive information within a short time has also forced library professionals to ascent electronic products. With the growing popularity of e-resources, the libraries are gradually migrating from printed documents to e-resources. Giving an access to information is considered to be more important than owning it. This has led the academic environment to re-look into their collection development and functioning. Application of information communication technology (ICT) in libraries has given enough opportunities for building e-resources and disseminates them to suit the needs of its patrons.

## *Need for the study*

Due to the search to e-journals and e-databases and also the emphasis made by AICTE enhancing the ICT tools for Library and Information science, consortia models like INDEST, UGC-Infonet and other library networks have made opportunities for higher academic libraries to provide access to e-resources. Hence it is necessary to conduct studies to asses the pattern of e-resource access and its impact among the academics.

## *Statement of the problem*

Print resources are slowly getting vanished and institutions are realizing to subscribe electronic resources so as to satisfy the users. Still some of the Engineering colleges in India have not realized the importance of electronic collections and their utility. There are some consortia / networks which assist academic libraries to get online databases at subsidized cost. There are 1100 colleges / institutions joined with INDEST-AICTE which provides online databases to its approved institutions in India. Hence the study "Awareness of Electronic resources among the research scholars of Anna University of Technology, Coimbatore and its affiliated colleges" were taken.

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## *Objectives of the Study*

The main objectives of this study are

1. To identify the level of awareness about open source and subscribed e-resources among the research scholars.
2. To identify the various search techniques / strategies adopted by the research scholars in accessing e-resources.

### *Hypotheses*

There is a noteworthy difference between male and female researchers on familiarity with e-resources.

### *Review of literature*

Hewiston's (2002) study, "Use and awareness of electronic information services by academic staff at Leeds Metropolitan University - A qualitative study" explores the results of an investigation into the awareness and extent to which the university's academic staff use and assimilate electronic Information Services (EIS) into their work. The research was conducted using two methods; a quantitative study involving a questionnaire mailed to a random stratified sample of 200 university staff and a qualitative study, which addressed four specific areas; the characteristics of the respondents (age, gender, faculty); the perceived feel of the information technology (IT) literacy of staff; the university and academic staff, and perception of students. The study investigated a number of other areas including: how academic staff of the university obtained information for their work; how aware university staffs are of EIS; how confident are academic staff in using EIS and the barriers that exists to their use; the extent to which academic staff integrate the use of EIS into students' educational lenience; and what the university can do to support staff better in their use of EIS.

## **Methodology**

### *Research Design*

The present study has been carried out under empirical research method. This study involves both primary, secondary data and

wide interaction with sample group. Empirical study is identified as appropriate one for the present study. Simple Random sampling method is chosen as far as primary data is concerned.

### *Sources of Data*

Primary data were the research scholars of different discipline in affiliated colleges of Anna University of Technology, Coimbatore. The secondary data includes survey reports, research papers, books, journals, College web sites and monographs.

### *Data Collection*

The researcher had visited the colleges, distributed the questionnaires and received the filled-in questionnaires from the respondents. The affiliated colleges are spread over the following districts. 1. Coimbatore, 2.Thiruppur, 3.Erode, 4.Salem, 5.Namakkal, 6.Karur, 7.Dharmapuri and 8. Krishnagiri.

### *Sample Design*

There were 781 research scholars registered for doing Ph.D in different disciplines in the year 2007-08. Out of total population (781), 610 respondents were randomly served the questionnaire for the present study. 499 respondents gave their feed back at the response rate of 81.80%.

The questionnaire is divided into six parts. In the first part, personal details such as gender, location, age, qualification, designation, experience, etc are to be furnished. The second part contains details of the institutions and their services. The third part provides awareness of electronic resources. Fourth part deals with utilizations of electronic resources. Fifth part contains impact of electronic resources. Sixth part shows opinion about electronic resources.

A five point scale comprising "strongly agree" "agree" "disagree" "strongly disagree" "No opinion" were used to elicit the responses of the research scholars.

*Scope & limitations of the study*

The study is confined to researchers who are doing Ph.D in Anna University, Coimbatore and its affiliated institutions.

There was a scope for covering research scholars who have registered for Ph.D from July 2007 to till date. Due to time limitation, the study is confined to July 2007 and April 2008 batches of research scholars. Further the study includes the attitude and usage pattern of research scholars, library environment of the study area and impact of the electronic resources.

*Analysis and interpretation of the data*

The data collected have been analyzed and interpreted using tables and statistical methods.

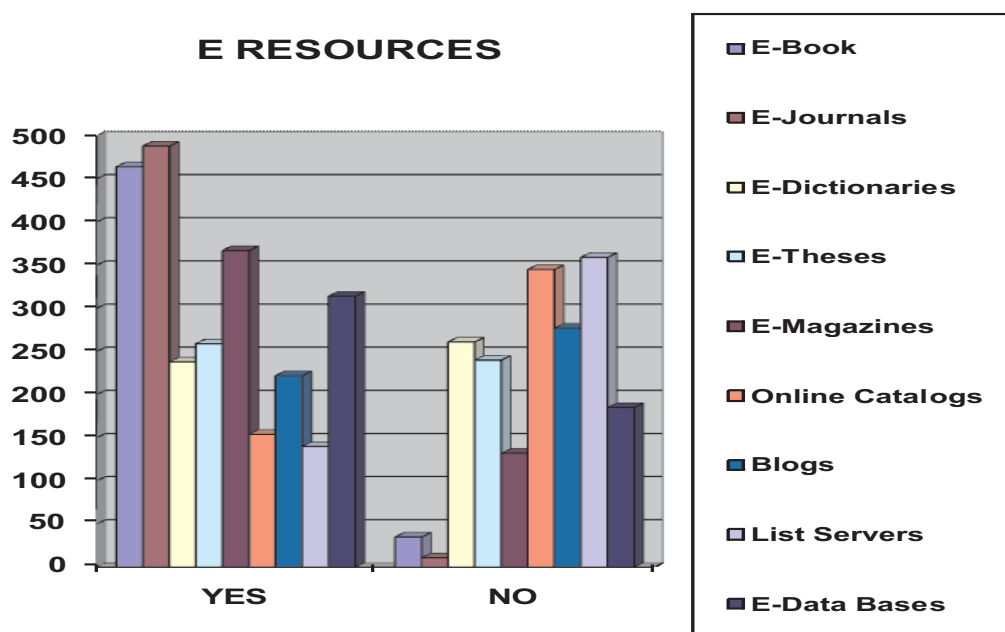
*Statistical Tools Used*

SPSS package has been used to validate the data being collected. The statistical and economical tools like Percentage Analysis, Chi-Square Test and Analysis of Variance were applied for the analysis of the study so as to arrive at conclusions which will indicate effective implications of the study.

**9.1: Awareness of E - Resources**

S.No	Variable	Status / No of Respondents		
		Aware	Unaware	Total
1	Aware of Electronic Resources	475 (95.2)	24 (4.8)	<b>499 (100)</b>
2	<b>Search Engine</b>			
2.1	Google	498 (99.8)	1 (0.2)	
2.2	Alta Vista	280 (56.1)	219 (43.9)	
2.3	Yahoo	450 (90.2)	49 (9.8)	
2.4	MSN	287 (57.5)	212 (42.5)	
2.5	Rediff	391 (78.4)	108 (21.6)	<b>499 (100)</b>
2.6	Info Seek	146 (29.3)	353 (70.7)	
2.7	Ask	225 (45.1)	274 (54.9)	
2.8	Lycos	191 (38.3)	308 (61.7)	
2.9	Excite	156 (31.3)	343 (68.7)	
2.1	Web Crawler	164 (32.9)	335 (67.1)	
3	<b>E-Resources</b>			
3.1	E-Book	464 (93)	35 (7)	
3.2	E-Journals	488 (97.8)	11 (2.2)	
3.3	E-Dictionaries	238 (47.7)	261 (52.3)	
3.4	E-Theses	259 (51.9)	240 (48.1)	
3.5	E-Magazines	367 (73.5)	132 (26.5)	<b>499 (100)</b>
3.6	Online Catalogs	154 (30.9)	345 (69.1)	
3.7	Blogs	222 (44.5)	277 (55.5)	
3.8	List Servers	140 (28.1)	359 (71.9)	
3.9	E-Data Bases	314 (62.9)	185 (37.1)	
4	<b>4. Aware of the Digital Library Consortium</b>			
4.1	INDEST - AICTE	355 (71.10)	144 (28.9)	<b>499 (100)</b>
4.2	UGC INFONET	107 (21.4)	392 (78.6)	

5.1	INDEST - AICTE Consortium and Awareness of E-Journals	353 (70.7)	146 (29.3)	<b>499 (100)</b>
5.2	INDEST - AICTE Consortium and Effective Use of E- Journals	237 (47.5)	262 (52.5)	
6	<b>Full Text E-Resources</b>			
6.1	ACM Digital Library	250 (50.1)	249 (49.9)	
6.2	ASME Journals	189 (37.9)	310 (62.1)	
6.3	EBSCO Data bases	79 (15.8)	420 (84.2)	
6.4	Elsevier's Science Direct	261 (52.3)	238 (47.7)	<b>499 (100)</b>
6.5	Emerald Full Text	179 (35.9)	320 (64.1)	
6.6	IEEE/IEL on Electronic Library Online	400 (80.2)	99 (19.8)	
6.7	Pro Quest Science	94 (18.8)	405 (81.2)	
6.8	Springer Link	328 (65.7)	171 (34.3)	
7	<b>Bibliographic Databases</b>			
7.1	COMPENDEX on EI Village	72 (14.4)	427 (85.6)	
7.2	J-GATE Custom Content for Consortia	153 (30.7)	346 (69.3)	
7.3	MathSciNet	33 (6.6)	466 (93.4)	<b>499 (100)</b>
7.4	Scifinder Scholar	53 (10.6)	446 (89.4)	
7.5	Web of Science	173 (34.7)	326 (65.3)	
8	<b>Open Access Resources</b>			
8.1	Open Access E-Journals	434 (87)	65 (13)	
8.2	Open Access Directories	144 (28.9)	355 (71.1)	<b>499 (100)</b>
8.3	<u>Irs@ Member Institutions</u>	87 (17.4)	412 (82.6)	



Awareness of E-Resources can be classified based on the Search Engines, E-Resources, Digital Library Consortium, Full Text E-Resources, Bibliographic Databases and Open Access resources.

*Awareness of E - Resources*

From the above table analysis shows that 475(95.2%) respondents were aware of the E-resources and 24(4.8%) were not aware of the E-resources.

S.No 2 highlighted the Search Engine and awareness of the search engine for the

aware of the E-Theses 240(48.1) replied not aware of the E-Theses. 367(73.5%) responded that they are aware of the E-magazines and 132(26.5%) were not aware. 154(30.9%) respondents were aware of the online catalogs whereas 345(69.1%) replied that not aware. 222(44.5%) respondents aware of the Blogs and 277(55.5%) were not aware of the Blogs. 140(28.1%) were aware of List servers and 359(71.9%) replied that not aware of the List servers. 314(62.9%) response from awareness of E-Databases and 185(37.1%) not aware of the Databases.355(71.10%) were aware of the

**Chi - Square Test Result for the Male and Female awareness and unawareness with regard to digital library consortium**

S.No	Variables	Aware		Unaware		Chi^2 (df;p(s))
		Male	Female	Male	Female	
1	INDEST-AICTE	49.1	22	16.8	12	5.203(1;0.028)
2	UGC-INFONET	14	7.4	51.9	26.7	0.016(1;0.909)

respondents. From the S.No 2.1 shows 498(99.8%) aware of Google Search engine . 464 (93%) respondents replied that they are aware of the E-books , 488 (97.8%) respondents are aware of the E-Journals. 238 (47.7%) respondents are aware of the E-dictionaries whereas 261(52.3%) were not aware of the E-Dictionaries.259(51.9%) were

INDEST-AICTE consortium whereas 144(28.9%) were not aware of the consortium. .107 (21.4%) responded for awareness and 392(78.6%) responded not aware of the above said consortium.S.No 5.1 in the above table explains INDEST –AICTE consortium provides E-Journals. The respondents were asked whether they are aware of the E-journals.

**Table 1.1: Chi - Square Test Result for the Male and Female awareness and unawareness with regard to full text electronic resources**

1.	ACM	31.9	18.2	33.9	16	1.663(2;0.435)
2.	ASME	28.3	9.6	37.7	24.4	10.184(1;0.002)
3.	EBSCO	10	5.8	55.9	28.3	0.291(1;0.606)
4.	ELSEVIER'S Science Direct	35.5	16.8	30.5	17.2	0.865(1;0.395)
5.	Emerald Full Text	24.2	11.6	41.7	22.4	0.345(1;0.623)
6.	IEEE/IEL	52.7	27.5	13.2	6.6	0.03(1;0.906)
7.	ProQuest Science	12.2	6.6	53.7	27.5	0.056(1;0.81)
8.	Springer Link	43.7	22	22.2	12	0.12(1;0.766)

353(70.7%) replied that aware of the E-journals and 146(29.3%) were not aware of the E-journals. S.No 5.2 in the above table the respondents were asked to whether they are using E-journals effectively if they are aware of the Consortium. The response 237(47.5%) replied they are using effectively e-resources and 262(52.5%) were not using E-resources effectively.

250(50.1%) have the knowledge about ACM digital Library and 249(49.9%), responded not aware of the ACM, 189(37.9%) have the knowledge about ASME Journals and 310(62.1%), responded not aware of the ASME Journals, 79(15.8%) have the knowledge about EBSCO Databases and 420(84.2%), responded not aware of the EBSCO Databases, 261(52.3%) have the knowledge about Elsevier's Science Direct and 238(47.7%), responded not aware, 179(35.9%) have the knowledge about Emerald Full Text and 320(64.1%), responded not aware of the Emerald Full Text, 400(80.2%) have the

COMPENDEX on EI Village and 427(85.6%) responded non familiarity, 153(30.7%) shows familiarity with J-GATE Custom content for Consortia and 346(69.3%) responded non familiarity, 33(6.6%) shows familiarity with Mathscinet and 466(93.4%) responded non familiarity, 53(10.6%) shows familiarity with Scifinder Scholar and 446(89.4%) responded non familiarity, 173(34.7%) shows familiarity with Web of science and 326(65.3%) responded non familiarity with web of Science.

434(87%) respondents replied that aware of the open access E-journals and 65(13%) not aware of the open access E-journals, 144(28.9%) respondents replied that aware of the open access E-Directories and 355(71.1%) not aware of the open access E-Directories, 87(17.4%) respondents replied that aware of the IRs@ member institutions and 412(82.6%) were not aware.

**Table 1.2: Chi - Square Test Result for the Male and Female awareness and unawareness with regard to bibliographic databases**

1	Compendex on EI Village	10	4.4	55.9	29.7	0.462(1;0.591)
2	J-Gate Custom Content for Consortia (JCCC)	22.2	8.6	43.7	25.5	6.074(2;0.048)
3	MathSciNet	5	1.6	60.9	32.5	1.519(1;0.257)
4	SciFinder Scholar	7.2	3.4	58.7	30.7	0.105(1;0.878)
5	Web of Science	24	10.6	41.9	23.4	1.389(1;.275)

knowledge about IEEE/IEL online and 99(19.8%), responded not aware of the IEEE/IEL, 94(18.8%) have the knowledge about Proquest Science and 405(81.2%), responded not aware of the Proquest Science, 328(65.7%) have the knowledge about Springer Link and 171(34.3%), responded not aware of the Springer Link Journals.

From the above Table S.No 7 .1 to 7.5 explains Bibliographic Databases and its familiarity. 72(14.4%) shows familiarity with

### Hypotheses testing

*Ho: There is no association between gender and awareness*

Level of significance: Let the level of significance ( $\alpha$ ) be 5% or 0.05

The analysis between gender and awareness towards full text electronic resources concerned, the chi-square test results in the p value is 0.002, which is less than 5% level of significance. Hence we reject

**Table 1.3 Chi - Square Test Result for the Male and Female awareness and unawareness with regard to open access resources**

1	Open Access E-Journals	1	28.5	7.4	5.6	2.7(1;0.122)
2	Open Access Directories	19.8	9	46.1	25.1	0.716(1;0.407)
3	Irs@ Member Institutions	12	5.6	53.7	28.5	0.641(2;0.726)

Hypothesis. Thus, the inferences highlights that there is significant difference between male and female researchers on familiarity with ASME Journals compared to other full text electronic resources like ACM, EBSCO, Elsevier's science direct, emerald full text, IEEE/IEL, proquest science and springerlink.

As far as Bibliographic databases are concerned, the chi-square test result in the p value is 0.048, which is less than 5% level of significance. Hence we reject H<sub>0</sub>. These remarks say that there is significant difference between male and female researchers on familiarity with J-Gate custom content for consortia compared to the other bibliographic databases like Compendex on EI village, MathsciNet, Scifinder scholar, and Web of science.

The analysis of gender and awareness towards open access electronic resources among the respondents exhibits that the p value is greater than the level of significance at 5% level. It shows that there is no significant difference between the awareness level of male and female researchers towards open access electronic resources. Hence the hypothesis is accepted.

### Conclusion

It has been observed that most of the researchers are satisfied with E-resources available in their institutions. Some of the research scholars felt that they need

orientation to use them and most of them are not aware of open access e-resources.

### Scope for futurework

Since the present study covered only research scholars who had registered with Anna University of Technology, Coimbatore. A major level project can be taken up in the state of Tamil Nadu or even in India with the financial support from any funding agencies like UGC, AICTE etc.

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