

ACCESS AND EFFECTIVE USE OF UGC-INFONET
E-JOURNALS
BY THE FACULTY MEMBERS AND RESEARCH
SCHOLARS AT UNIVERSITY LIBRARY,
ANNAMALAI UNIVERSITY,
TAMIL NADU- A CASE STUDY

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ABSTARCT

The Internet is a major source of communication and dissemination of information in the twenty-first century. The Internet has now-a-days become an important component in academic institutions as it plays a pivotal role in meeting the information and communication needs of institutions. As a powerful and dynamic tool for communication, it is the largest single source of information at the global level. The present study examined that the majority 93 (74.44%) of the faculty members and research scholars were using internet to obtain the e-information for teaching and research, A majority of the respondents 64(51.2) accessing the e-journals from university library and a large majority of the respondents 52(41.6%) are fully satisfied with the existing usage of UGC-Infonet e-journals digital Library Consortium) and they have given first rank to American Institute of Physics ,second rank to American Institute of Society on the basis of usage).

Key Words:Information Technology, Internet, Knowledge Centers, World Wide Web, INFLIBNET, UGC-Infonet Digital Library Consortium

Introduction:

With the advent of globalization in the realm of education, there has been information explosion. The present decade has been dubbed as the information age. E-resources in collaboration with Internet have become a sign of modern age being an invaluable tool for teaching, learning, and research. The library and information landscape has transformed with the onset of the digital era and today traditional libraries have changed their roles to serve as ‘Knowledge Centers’ with priority on value added electronic information services. The internet boom in India has become one of the major

contributors to the economic growth of the country. The use of internet has increased more than 11 times in the last seven years. This rise has led to the growth of cybercafés and internet parlors throughout India with easy accessibility and cost effective services helped by the enhanced speed of the internet.

Importance of internet:

Use of the emergence of the internet and e-resources 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 twenty-first century. Increasing numbers of publishers – both commercial and private, as well as individuals – are using the internet as a global means to offer their publications and writings to the international community of scientists and technologists, as well as students. Electronic journals are simply serial publications in which the end products are made available in digital formats and online whose contents may or may not be peer reviewed (Khan and Ahmad, 2009). Internet by research scholars, therefore, is an important area of study in today's information environment.

A study conducted by Business mapsofindia.com (2008) reveals that, the number of internet users since the year 2000 has increased by a staggering 69 times in the metropolitan areas and 33 times in the semi-urban towns. It has been predicted that, the internet boom in India is still on the rise at present, and as per the ongoing trends, it would continue on its path of glory until things might change. According to the Internet Society, a non-profit society that studies and promotes the use of the Internet, 134 countries had full internet connection and an additional 52 countries had limited access (for example, e-mail only) in 1996. Surveys performed by International Data Corporation and Matrix Information and Directory Services found that as of beginning of 21st Century there were between 53 and 57 million users of the Internet worldwide.(Thanuskodi,S & S.Ravi:2011)

Profile of Annamalai University:

The Annamalai University is a unitary, teaching and residential university. It was founded by the munificence of the farsighted and noble hearted philanthropist and patron of letters the late Hon'ble Dr. Rajah Sir Annamalai Chettiar of Chettinad in 1929. The University has had the unique good fortune of having a succession of eminent Vice-Chancellors to guide its destinies. During the last eighty years the University has grown rapidly and consolidated its position as a unitary and residential University with Forty nine Departments of Study and over 2500 members on its teaching staff. Annamalainagar is already a busy and full-fledged University town east of Chidambaram, the abode of Lord Nataraja. The University campus, including the colleges, hostels and playgrounds occupies an area of about thousand acres.

Profile of Library:

The seed of the main library germinated in 1920 with a token deposit of 200 books, when Sri Meenakshi College was founded. Then main was initially housed in the eastern wing of the Administrative building. The present building was opened by His

Excellency Shri. Bishnuram Medhi, the then Governor of Madras, on 22nd October, 1959. Within a built-in area of about 36,000 Sq.ft. The building is a 'H' shaped structure, with a well controlled entrance lobby, a spacious Central Reading Hall, Reference Hall, Periodicals hall, and Bindery on the Eastern wing and Administrative Sections, closed access stack-rooms, Reprographic Section in the Western wing and open access stack rooms on both the wings.

The University Library has the unique privilege of being selected as a full-fledged Depository for the World Bank Publications ever since 1986, and through this offer, our library gets the entire publications of the Bank at free of cost, and it is getting renewed every two years, based on the utility of the collections. The World Bank Cell is kept opened in all working days for reference. The photocopy service available inside the library is useful for the researchers to get Xerox copy of the collections. The compact discs (CD), contain information collected by the International Bank for reconstruction and development and the index of publications & guide to Information Products, and services of the World Bank are available in discs. The Library is one of the few University Libraries in the country to have modernized its entire operations. The automation project was started in the year 1995 with special grant of fifty lakhs rupees received from the UGC-INFLIBNET. Through the following facilities, the user community will have unique advantage of availing of the library services round the clock. Online Public Access Catalogue (OPAC), Internet Service, CD-ROM Service.

History of UGC – infonet e–Journals Digital Library Consortium:

The Govt. of India through UGC initiated UGC – Infonet e – Journals consortium to provide scholarly access e – journals and databases by the research and academic community through out the country. This consortium was launched on the concluding say of UGC's Golden Jubilee celebrations His Excellency the then president of India. Dr. APJ Kalam on 28th December 2003. The UGC info-net maintaining Internet bandwidth, a Pre-requisite for the delivery of scholar's content subscribed through the UGC-Info-net digital library consortium. The scheme has now extended to 200 Universities and Six Inter University Centers of UGC. (www.Inflibnet.ac.in) This consortium is providing nearly 5,000 peer-reviewed International and national electronic journals and databases in different subjects.

Need for the study:

Academic libraries have made a significant investment in electronic information resources and in computer-based technologies in general and the Internet is particular as a need on the part of librarians to provide technology mediated information services to the clientele. In a limited span of time, the Internet has become an integral unit for library and Information Centers. The current study is conducted to measure and access the changing user's attitude, and behavior towards the Internet. It is necessary to examine the Internet facility provided at the university campus and to evaluate the use of Internet.

Objectives of the Present Study:

The following *objectives* are made for the present study.

- To know the awareness of electronic Journals
- To study the importance of the UGC-Infonet Digital Library Consortium e-Journals
- To know the purpose of using the Internet
- To examine the impact of internet in teaching and research
- To know the level of satisfaction of the respondents
- To find out the problems faced by the faculty members and research scholars while accessing the Internet e-journals
- To suggest the ways and means for effective use of the UGC-Infonet e-Journals Digital Library Consortium based on the present study.

Hypotheses:

For the present study, the following hypotheses were made:

- The faculty and research scholars are using the e-Journals for teaching and research
- The bandwidth is slow and computer terminals are very limited.
- Majority of the UGC-Infonet e-Journals are foreign, so, usage is limited.
- Most of the websites of the e-Journals are not opening for viewing/downloading.

Methodology:

To conduct the study, survey method and questionnaire tool for data collection were used. A well structured questionnaire was designed scientifically keeping in view of the objectives. Purpose of accessing e-resources is;

- Frequency of use of such resources;
- Importance and influence of e-resources on their study/research efficiency;
- Place of accessing e-resources
- Key constraints that prevent the faculty and research scholars from effective use of UGC-Infonet e-journals digital library consortium.

Size of the Sample: For the present study, A structured questionnaires were distributed to faculty members and research scholars to a sample for 150 and 125 (83.33%) of them received back and the same used for analysis.

Statistical Techniques used: The collected data from the respondents presented in a simple tabular form with percentages.

Review of Related Literature: In any field of study, the existing literature constitutes a base on which all further research is carried out. The Encyclopedia of Educational Research says that the related literature is the embodiment of complete informational knowledge of any specific subject or topic of research. This helps the researcher to highlight the studies and their findings related to the problem undertaken for research. The researcher feels that there is a need for review of literature, which has some relation to the relevant area and considers the most important pre-requisite to actual planning and

conducting the study. Therefore, the researcher made an elaborate review of the research material available on the subject.

1. Karisiddappa, C.R. and Mallikarjun M. Mulimani (2010) have highlighted in their study stated the importance of UGC infonet e-journals digital library consortium. They expressed that the e-journals are very essential for the Indian Higher Education system. They suggested that to use more e-Journals in study and research in higher education, there is a great need of conducting the user education programmes, guest lecturers and workshops to know about the UGC infonet e-journals.
2. Joteen Singh, KSH. Anand Singh and AS Chandel (2009), expressed in view that the UGC-INFO-NET Usage In Manipur University: A Statistical Comparison of Downloads of Different Publishers” regarding to usage & downloading of e-journals are very useful for the teaching community as well as research scholars which is more useful for their research as well as academic career.
3. Madhusudhan (2007) conducted a survey on Internet use by research scholars at Delhi University, which revealed that most respondents used search engines more than subject gateways or web directories to locate information. Negative attitudes as well as conservatism act as barriers to effective Internet use.
4. Baljinder Kaul and Rama Verma (2008) in their article “*Use of Electronic Information Resources: A Case Study of Taper University*” says that awareness of UGC-Infonet e-Journals Digital Library Consortium is known the very few students and research scholars of Taper University. So, They suggested that to conduct frequently User Education/Orientation Programmes also work-Shops for getting the awareness on UGC-Infonet E-Journals.
5. Nataraj M. and Praveena, K. (2010) in their article entitled “E-Resources usage among University Teachers and Research Scholars in University of Tamil Nadu” said that the Faculty and Research Scholars of Social Sciences have expressed positively and essentially about the e-resources which are frequently used by them. They also explained the importance of UGC-INFONET e-journal.
6. Rajan, V. R. (2010) in his article has stated that the e-resources which are available on UGC info-net digital library consortium are very useful. These e-resources are playing an important role in research in higher education. These e-resources can be a powerful tool for all members of the academic community.
7. Kaur (2000) studied Guru Nanak Dev University, and Bavakutty and Salih (1999) conducted a survey at Calicut University, which showed that students, research scholars, and faculty members used the Internet on education and research purpose.
8. Anjaiah, M (2013) in his article “Usage of UGC- Infonet E-Journals Digital Library Consortium by the Faculty Members and Research Scholars: With Special Reference to Kakatiya University, Warangal - A Study” discussed that on UGC info-net digital library consortium is playing a very important role in disseminating the e-resources information which is more useful to teaching community as well as research scholars to complete their research study.

Data Analysis and Interpretation: Analysis of data is the ultimate step in research process. It is the link between raw data and significant results leading to conclusions. This process of analysis has to be result oriented. The questionnaires were distributed and collected from the respondents which are presented in Table 1.

Table 1: Distribution of Questionnaires

S.No.	Status of the Respondents	No. of Questionnaires Distribution	No. of Questionnaires Received
1	Faculty Members	50 (33.33)	28 (22.4%)
2	Research Scholars	100 (66.66)	97 (77.6%)
3	Total	150 (100.00)	125 (83.33)

Table 1 depicts that, for the present study, a total of 150 questionnaires were distributed to the respondents belongs to the faculty and research scholars of science and social science departments of Annamalai University using simple random sampling technique to which 125 responded, which amounts to **83.33** per cent of response rate.

Table 2: Gender-Wise Distribution of Respondents

S.No.	Status of Respondents	Male	Female	Total
1.	Faculty Members	16 (12.8)	12(9.6)	28(22.4%)
2.	Research Scholars	65(52.00)	32(25.6)	97(77.6%)
3.	Total	81(64.8)	44(35.2)	125(100.00)

The data given in Table 2 presents the Gender-Wise distribution of the respondents. It is found that a majority 81(64.8%) of the respondents belongs to male, followed by female, 44(35.2%). Out of 28 (22.4%) faculty members, 16 (12.8%) are male and 12 (9.6%) are female and among research scholars, male 65 (52.00%) and 32(25.6%) are female.

Table 3: Residence-Wise Distribution of Respondents

S.No.	Status of Respondents	Rural	Urban	Total
1.	Faculty Members	03 (2.4)	25(20.00)	28(22.4%)
2.	Research Scholars	20(20.00)	77 (61.6)	97(77.6%)
3.	Total	23(18.4)	102(81.6)	125(100.00)

The above Table (3) reveals that the majority 102 (81.6%) of the respondents belongs to the urban background, 23(18.4%) belongs to rural area. It is evident that most of the respondents *i.e.* faculty and research scholars belongs to the urban area, because, the researcher found that the university is located in urban area.

Use of Internet: Information is published in several forms. By using internet, the people can improve their knowledge by viewing the information via net. The information can be downloaded which they need. A question has been asked to the respondents to know the use of internet. Their replies are analyzed and presented in the Table 4.

Table 4: Use of Internet by the Respondents

S.No.	Status of Respondents	Yes	No	Total
1.	Faculty Members	28 (100)	---- (00)	28(22.4%)
2.	Research Scholars	65(52.00)	32(25.6)	97(77.6%)
3.	Total	93 (74.44)	32 (25.6)	125(100.00)

Table 4 explains that the use of internet by the users, Out of 125 respondents, 93(74.44%) respondents replied positively that they are using Internet; they are faculty 28(100.00%) and research scholars 65(52.00%) respectively and 32 (25.6%) research scholars answered that they are not using Internet.

Frequency Distribution of the Respondents: The distribution of the respondents of faculty members and research scholars to the frequency of using e-journals in the library is shown in Table No.5

Table 5: Frequency of Use of the UGC- Infonet E-Journals

S. No.	Frequency	Faculty Members	Research Scholars	Total
1.	Every Day	04(3.2)	19(15.2)	23(18.4)
2.	Once in a 2 days	08(6.4)	37(29.6)	45(36.00)
3.	Once in a week	11(8.8)	21(16.8)	32(25.6)
4.	Every 15 Days	03(2.4)	16(12.8)	19(15.2)
5.	Once in a Month	02(1.6)	04(3.2)	06(4.8)
6.	Total	28(22.4%)	97(77.6%)	125(100.00)

It can be observed from the Table 5 that, the majority of the respondents visit the UGC Infonet-e-Journals once in two days 45(36.00%), followed by once in a week 32(25.6%), daily 23(18.4%), every 15 days 15(15.2%) and monthly 06(4.8%).It can be concluded that majority of the respondents visit the UGC-Infonet e-Journals once in two days which is a healthy habit for retrieving the information for their study/ research also preparing project works by the research scholars. It is a good sign for getting the quality of production of research work. It shows that the quality of research done by the scholars. This is most useful for the development of Nation.

Table 6: Purpose of Using E-Journals

S. No.	Purpose of Utilisation of E-Journals	Faculty Members	Research Scholars	Total
1.	For Teaching & Research	10(8.00)	32(25.6)	42(33.6)
2.	For Searching Online Databases	03(2.4)	28(22.4)	31(24.8)
3.	For Supervising/Guiding	06(4.8)	--(00.00)	06(4.8)
4.	Writing Books/Chapters	04(3.2)	02(1.6)	06(4.8)
5.	Writing Articles for Seminars / Conferences/Work-Shops/Symposia	03(2.)	20(16.00)	23(18.4)
6.	General Information	02(1.6)	15(12.00)	17(13.6)
7.	Total	28(22.4%)	97(77.6%)	125(100.00)

From the above Table 6, it is clear that most of the respondents 42(33.6%) use UGC-Info net e-Journals for their teaching & research, followed by 31 (24.8%) respondents use for searching online databases, 23(18.4%) for writing research/general articles for presenting at seminars, conferences and work-shops & Symposia, 17(13.6%) of the respondents for general information, followed by the respondents 6(4.8%) for writing books /chapters, the same per cent age of respondents from only faculty used for supervising. It is clearly shows that the importance of e-journals in academic field.

Table 7: Place of Internet access of UGC-Infonet e-Resources

S. No.	Place of Accessing E-Resources	Faculty Members	Research Scholars	Total
1.	From University Library	07(5.6)	57(45.6)	64(51.2)
2.	From Department	15(12.00)	12(9.6)	27(21.6)
3.	From Internet Centers	02(1.6)	21(16.8)	23(18.4)
4.	From Home	05(4.00)	06(4.8)	11(8.8)
5.	Total	28(22.4%)	97(77.6%)	125(100.00)

Table 7 depicts place from where faculty members access the Internet. The majority 64(51.2%) of respondents access the Internet from University Library, about 27(21.6%) respondents access from department, followed by 23(18.4%) respondents access from Internet Centers and 11(8.8%) respondents from home. Among majority of the respondents, faculty members (12.00%) accessing the e-journals from departments and research scholars (45.6%) from university library. It is a good sign that using the library for accessing the UGC-Infonet e-journals in this digital age.

User Satisfaction: To know the level of satisfaction from the respondents on UGC-Infonet e-journals Digital Library Consortium, Information was sought and the same is presented in the below table no.8

Table 8: User Satisfaction on UGC – Infonet E-Journals

S. No.	Academic Status of Respondents	Fully Satisfied	To Some Extent	Not Satisfied	Total
1.	Faculty Members	18(14.4)	07(5.6)	03(2.4)	28(22.4%)
2.	Research Scholars	34(27.2)	21(16.8)	42(33.6)	97(77.6%)
3.	Total	52(41.6)	28(22.4)	45(36.00)	125(100.00)

The above table (8) furnishes the details about user usage satisfaction on UGC-Infonet E-Journals. It may be seen that, out of 125 respondents, nearly half of respondents 52(41.6%) are fully satisfied with the existing usage of the e-journals and a majority 45(36.00%) of the faculty members and research scholars are not satisfied with the availability of existing UGC-Infonet e-journals which are in the university library, followed by 28(22.4%) respondents were satisfied to some extent. It may be observed from the study that most of the e-journals are not utilized by the respondents, because of many problems which they are expressed by open ended questions while they are accessing the UGC-Infonet e-Journals Digital Library Consortium.

Problems faced by the Respondents: The problems faced by the faculty members and research scholars while accessing the UGC-Infonet E-Journals Digital Library Consortium were considered for the study. To know the problems faced by the respondents, many questions were distributed and information is sought from them and presented in the following table no.9.

Table 9: Problems in Using the UGC-Infonet e-Journals

S.No.	Problems in Using the e-Journals	Faculty Members	Research Scholars	Total
1.	Limited access terminals	-- (00.00)	57 (45.6)	57 (45.6)
2.	Slow bandwidth	23 (18.4)	75 (60.00)	98 (78.4)
3.	Frequent power off	25 (20.00)	85 (68.00)	110 (88.00)
4.	Lack of skilled (ICT) professional staff	05 (4.00)	69 (55.2)	74 (59.2)
5.	Retrieval problems	22 (17.6)	95 (76.00)	117 (93.6)
6.	Lack of relevant information resources	12 (9.6)	87 (69.6)	99(79.6)

The above table 9 explains that the majority of the respondents are facing many problems while accessing the e-journals digital library consortium which are distributed

in the form of questions. The table reveals that, out of 125 respondents, 110 (88.00%) respondents find out frequent power off, 99 (79.6%) respondents opined that the lack of relevant information resources available, 98 (78.4%) respondents expressed their views on slow bandwidth, followed by 117 (93.6%) of the respondents stated that the e-journals web sites are not responding, 13 (14.44%) were replied slow speed of bandwidth, 74 (59.2%) stated that lack of knowledge is also a problem for retrieving the needed information and 74 (59.2%) respondents replied lack skilled (ICT) professional staff in the university library. It is evident that the e-journals are not very much utilized by the respondents due to many problems.

Ranking of UGC-Infonet E-Journals: After accessing and using the UGC-Infonet e-journals digital library consortium by the faculty members and research scholars were given the ranking. According to their opinion, the *first rank* was given to the American Institute of Physics, followed by American Physical Society as second rank, 3 is for American Chemical Society, 4 for Elsevier and 5 is Emerald and other journals` databases rank also mentioned in the following ranked UGC-Infonet E-Journals table.

Table 10: Ranking of UGC-Infonet E-Journals

Sl.No.	E- Journals / Bibliographic Data Bases	Ranking
1	American Institute of Physics	1
2	American Physical Society	2
3	American Chemical Society	3
4	Elsevier	4
5	Emerald	5
6	Institute of physics	6
7	Springer	7
8	JSTOR	8
9	JCCC	9
10	Royal Society of Chemistry	10
11	Taylor & Francis,	11
12	Cambridge University Press	12
13	Blackwell & Wiley	13
14	Oxford University Press	14
15	Journal of Political Economy	15
16	Nature	16
17	Economic & Political Weekly	17
18	Math.Sci.Net	18
19	Project-Euclid	19
20	Project-Music	20

Major Findings of the Study:

The following major findings were found from the present study and given below:

1. A Majority of the respondents 81(64.8) belongs to male, followed by female 44(35.2)
2. A Large Majority of the respondents 102 (81.6) from urban area, whereas 23 (18.4) respondents from rural
3. A majority 48 (78.88%) of the respondents opined that the e-journals are very useful to complete their study and research and up-to-date the subject knowledge.
4. A Majority 34 (37.77%) of the respondents says that the purpose of visiting digital library of the university, to use the e- resources for research, teaching & supervising to research scholars.
5. A Majority 93 (74.44%) of the faculty members said that usage of internet is most useful, needful and very essential to obtain the e-information for teaching and research from the digital library consortium, but some of the research scholars 32 (25.6%) responded negatively, because of lack of knowledge on e-journals/e-information.
6. A Majority of the respondents visit the UGC Infonet-e-Journals once in two days 45 (36.00%), followed by once in a week 32(25.6%), daily 23(18.4%), every 15 days 15(15.2%).
7. A Majority 42(33.6%) of the respondents using e-journals for teaching and research purpose and 31 (24.8%) respondents were using the internet for searching online databases of UGC-Infonet e-journals digital library consortium.
8. A Majority of the respondents 64(51.2) accessing the e-journals from university library. Among them, faculty members 15 (12.00%) accessing e-resources from respective departments, but research scholars 57(45.6%) accessing e-journals from university library.
9. A Majority of respondents 52(41.6%) are fully satisfied with the existing usage of the e-journals,45(36.00%)faculty members and research scholars are not satisfied with the availability of existing e-journals.
10. A large majority 117 (93.6%) of the respondents stated that retrieval problems for viewing, downloading the information from the URLs,110 (88.00%)respondents find out frequent power off , 99(79.6%) respondents opined that the lack of relevant information resources available, 98 (78.4%) respondents expressed their views on slow bandwidth
11. As per the respondents' opinion on usage of UGC-Infonet e-Journals, the American Institute of Physics database is given **First Rank**, followed by American Physical Society, American Chemical Society, Emerald and Elsevier as second, third, fourth and fifth rank respectively.

Conclusions:

Communication Information Technology (ICT) plays a vital role in the development of society. Vast amounts of data are transmitted in seconds, and Internet access offers unimaginably large amounts of information, data, and interpreted materials. Use of the emergence of the internet and e-resources 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 twenty-first century.

The internet considered as the electronic mobile library in cyberspace provides an almost universal infrastructure for accessing the information with almost global reach. The Internet is composed of a large number of smaller interconnected networks called internets. These internets may connect tens, hundreds, or thousands of computers, enabling them to share information with each other and to share various resources, such as powerful supercomputers and databases of information. Free access to scholarly literature through UGC-Infonet Digital Library consortium is boosting status of Indian higher educational system. With the help of INFLIBNET, all the universities have to be geared up to meet the latest and authentic information needs of users.

Recommendations:

Based on the present study, the following constructive suggestions were made by the researcher for effective use of the UGC-Infonet e-journals by the faculty members and research scholars of the university and also to overcome the problems faced by respondents of the study.

1. The university digital library should be connected with a high inverter to overcome the frequent power off.
2. The university library authorities should be taken steps to provide high speed computer terminals to reduce slow bandwidth.
3. The library staff should be enriching the updated ICT skills /knowledge and they will be given proper ICT training programmes frequently.
4. The major problems such as downloading, irrelevant information, finding relevant information, and information overload are the faced by faculty members and research scholars should be avoided by way of taking immediate steps.
5. The librarian should be arrange on hand work-shops to research scholars on ICT skills for getting the e-information which is most needful in their research activity.
6. The UGC and INFLIBNET should be taken immediate steps for including the more Indian Journals for the benefit of users' community as per their usability.
7. Library staff should be trained enough to make library users from literate to information literate by providing training about how to search and downloads the needed information from e-resources.
8. There is need to conduct regular user education programmes to the library users relating to electronic information and other e-journals, databases and so on.

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