

Usage patrons of UGC-INFONET Database Users of Mangalore University: A Case Study

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Abstract

The purpose of this study is to identify the effect of usage of UGC infonet data base usage among students in Mangalore University. To achieve this, 120 questionnaires were distributed to students of various departments. UGC-Infonet point out that 36 (30.00%) of the respondents are considered not at all important. About almost 43 (38.80%) of the respondents are feel that little important , followed by 46(38.30%) respondents agreed it is somewhat important ,Just about 17(14.20%) are agreed that quit important and wide range of respondents of 100 (83.30%) settled their opinion for absolutely important. remaining out of 120 respondents, 103 (85.80%) are not agree for use of UGC –Infonet is quit important. . This paper is to provide an status of UGC-infonet and issues relating usage aspects.

Keywords: UGC Infonet, User Study, E-Resource, Databases, Mangalore University, India

1. Introduction

The University Grants Commission (UGC) has initiated the UGC-Infonet programme to provide electronic access to scholarly literature over the Internet in all areas of learning to the University sector in India. The programme is wholly funded by the UGC. All the universities which come under UGC's purview will be members of the programme, and it will gradually be extended to colleges as well. The UGC-INFONET will be overlaid on ERNET infrastructure to provide assured quality of service and optimal utilization of bandwidth resources. The project is being funded by the UGC with 90% capital investment and 100% recurring cost during the X Plan period. A Joint Technical and Tariff Committee (JTTC), consisting of leading experts in the country has been set up to guide and monitor the entire project. INFLIBNET Centre, an autonomous IUC of the UGC, is the nodal agency for coordination of the UGC-INFONET and facilitates linkage between ERNET and the universities.



2. About Mangalore University

The Mangalore University Library was established in 1980. It moved to an independent building in 1993 which is planned for 9000sq. meters area. Presently, around 6250 sq. meters area is being used to accommodate the Browsing, Circulation, Periodicals, Reference, Stack, Textbooks and Language Sections. The building also houses an Office, Acquisition Section, Technical Section, Orientation Hall, Librarian's room and Cyber lab .At present the library has in its Stock 2,05,320 books, 23,085 back volumes apart from Reports, Theses etc., covering a wide variety of subjects. It has a rich collection of about 293 research and general interest journals on a wide range of subjects. It has access to over 8500+ Journals in Full text in e-form from 25 UGC-INFONET databases and 45000+ Journals full text information from J-Gate database

3. Earlier studies

Jagdish Arora, Kruti J. Trivedi and Ajit Kembhavi (2013) Over the last several years, the UGC-INFONET Digital Library Consortium has been providing Indian universities with electronic access to national and international scholarly journals. These journals span wide areas of natural and physical sciences, social sciences and humanities, and address a long-standing need of the university community for access to scholarly publications. In this article, we describe some details of this programme and examine the impact it has made on research and development activity in the universities. The research output data from three citation indices, namely Science Citation Index, Social Sciences Citation Index and Arts and Humanities Citation Index for the first 50 universities to be made part of the programme have revealed that the number of research articles produced by these 50 universities has increased by more than 75% in past 5 years, i.e. from 2005 to 2009 in comparison to the previous block of 5 years, i.e. 2000 to 2004. While increase in research output is evident in all three major subject disciplines, i.e. science, social science and arts and humanities, increase in research output is significantly higher in science, compared to the other two disciplines. Moreover, a strong positive correlation is found between the number of articles downloaded by these 50 universities from e-resources accessible to them through the consortium and research articles published by them. We also comment on the influence of other factors such as number of researchers and level of research funding on this correlation.

Bal Ram and Bhaskar Karn (2014) Due to ICT, electronic resources are becoming more popular for research community as well as easy to use and consistent also, The electronic resources make the e-learning operative, Which advances the attention among the students as well as staff, and encourage them for the independent learning. Investigator discussed the awareness and utilization of e-resources and UGC Infonet consortium in the users of Universities of Jharkhand in Eastern India. Concept of e-resources apart from this study covers the consortium in Indian context in brief. Today the value of Information and users need have increased enormously so much, So that important of consortia is much more.

Bhaskar Mukharjee and Prashant Kumar (2010) reported to identify the user's requirement of online journals in general and to know the use of online journals that are available through UGC-Infonet e-journals consortium in particular. The study amongst 100 research scholars of various departments like history, political science, sociology, psychology, an economics, at the faculty of Arts. Banaras Hindu University, Varanasi. Reveals that there is a demand for more e-journals titles although a substantial number of users (61.90%) are satisfied with the existing model of UGC-Infonet consortium. Concludes that comprehensive training on availability and usability would be of great help to the users.



Mothukuri Anjaiah (2014) 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 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).

Baljinder Kaur and Rama Verma (2009) in their study the issues like use of electronic information resources, its impact on the collection of print and electronic journals its awareness among the users, and the places where the users are accessing these resources. A survey was conducted in the academic year 2006-07 at the Thapar University, Patiala. A total number of 504 users from the undergraduate, postgraduate, research scholar and faculty members were selected and their response was obtained with the help of questionnaire. The findings show that users from all these categories were using e-resources; the awareness about e-resources encourages users to use such resources to the maximum; and the users are using computer centre and hostels more for accessing the information. The impact of e-resources was visible from the decrease in number of printed journals in comparison to the increase in number of electronic journals. The use of e-journals has increased manifold. The printed material is being quickly replaced by the electronic resources.

Sonker, Shah and Shukla (2014) UGC-INFONET digital library consortium is an one of the biggest project of UGC to provide their e-learning facility in whole country. Electronic scholarly communication with electronic journals is one of the very demanding facilities of researchers by which they can evaluate and re-cycle their knowledge. Due the changing nature of atmosphere mode of study can also reflect. In this paper researcher conducted their study on Use of UGC Infonet Digital consortium by users of central University of Allahabad and evaluate the performances of UGC IN FONET.

Harish Kumar (2014) UGC INFONET Digital Library Consortium is an innovative project launched by UGC to provide access of full text electronic resources and bibliographic databases to the research and academic community in India. The present paper is an attempt to study the usage of e-resources available through UGC INFONET Digital Library Consortium by the Guru Nanak Dev University Library users. 105 questionnaires were distributed to the users and 84 questionnaires were received back for an analysis of the data. The study reveals that the majority of the respondents evaluate UGC INFONET Digital Library consortium as good.

Murthy, Cholin and Vijayakumar (2005) Information and Library Network (INFLIBNET) is an autonomous inter-university centre of the University Grants Commission (UGC) located at Gujarat University Campus, Ahmedabad. It is directed towards modernization of libraries and information centres for information transfer and access, to support scholarship, learning and academic pursuits by establishing a national network of libraries and information centers in universities, institutions of higher learning and R & D institutions in India. It is basically a co-operative Endeavour in resource development, sharing and its utilization at national level. Since May 1996 it is an independent autonomous Inter University Centre under UGC, and it



is set out to be a major player in promoting scholarly communication among academicians and researchers in India.

4. Objectives of the Study

- To identify the level of use and awareness of UGC Infonet among the users
- To trace out the advantages of the UGC Infonet
- To identify the purpose of the UGC Infonet
- To know the duration of Using UGC Infonet
- To find out the problems faced for accessing UGC Infonet
- To know the utilization of UGC Infonet resources of the library
- To trace out the frequency and various purpose of visiting library
- To know the frequency of usage databases and bibliographical databases.

5. Data Analysis

A sample of 120 respondents is covered in the University of Mangalore. An attempt has been in This study to understand the usage pattern of user in various aspects. Table 1 it can be seen that 120 questionnaires distributed and the entire filled questionnaire was received and tabulated using SPSS software. Survey, result shows that the overall respondents agreed by the awareness of UGC Infonet.

Table 1:- Awareness of UGC Infonet

UGC Infonet	No. of Respondents	Percentage
Yes	120	100.00%
No	0	0.00%
Total	120	100.00%

According to this survey, the overall respondents agreed by the awareness of UGC Infonet. 100% result is collected by this survey.

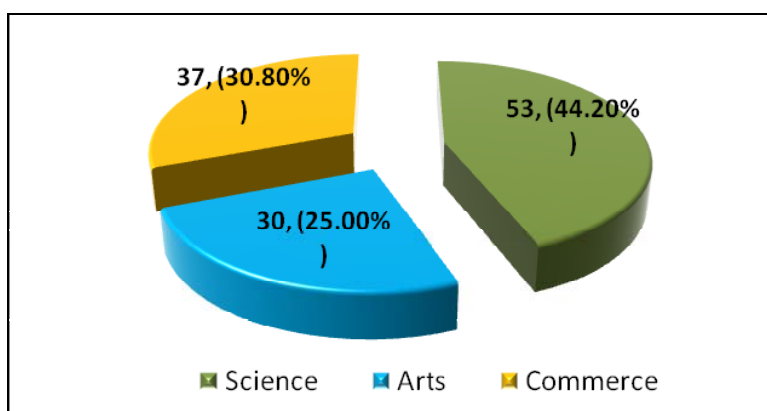


Figure 1:- Discipline wise usage of UGC Infonet

The figure 1 shows the discipline-wise analysis of response data indicates that those students who belong to Science discipline are 53 representing 44.20% of the total respondents. There are 30 students who belong to Arts and 37 students belong to commerce representing 25.00% and 30.80% respondents, respectively.



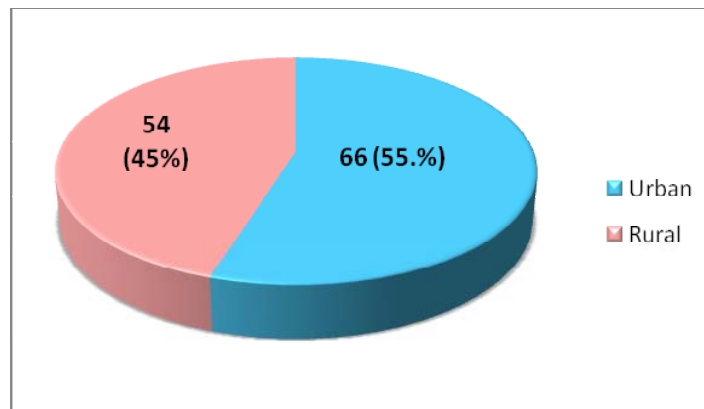


Figure 2:- Residential area wise usage of UGC Infonet

The above figure 2 shows the residential wise analysis of response data highlights that those users belongs to Urban area are 66 representing 55.00% of the total respondents and Who belongs to rural area are 54 representing 45.00% respondents respectively.

Table 2:- Gender wise usage of UGC Infonet

Gender	No. of respondents	Percentage
Male	71	59.20%
Female	49	40.80%
Total	120	100.00%

The above table 2 defines gender wise analysis of data indicates UGC Infonet users of Mangalore University Library, that out of 120 respondents, 71 are men and 49 are women representing 59.20% and 40.80% respectively.

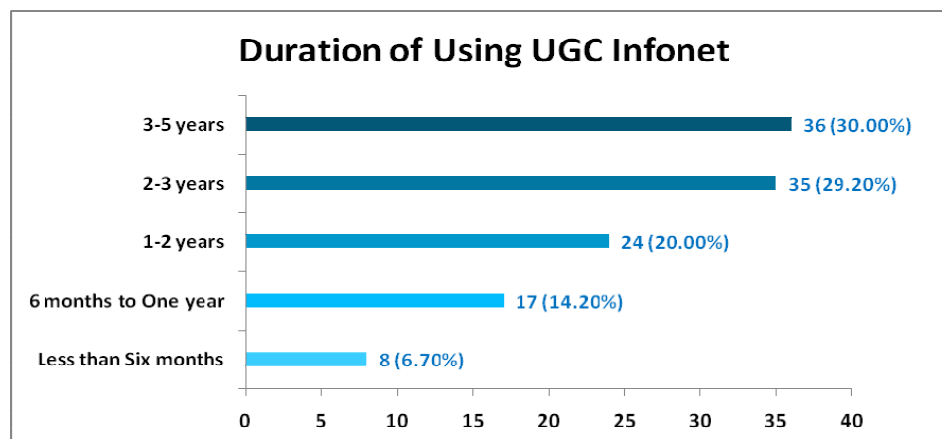


Figure 3 : - Duration of Using UGC Infonet

Above figure 3 shows that , 8 (6.70%) respondents used UGC Infonet less than six months, 17 (14.20%) are using on six months to one year, 24 (20.00%) are agreed one to two years, 35 (29.20%) are accessing two to three years, and 36 (30.00%) three to five years, respectively.



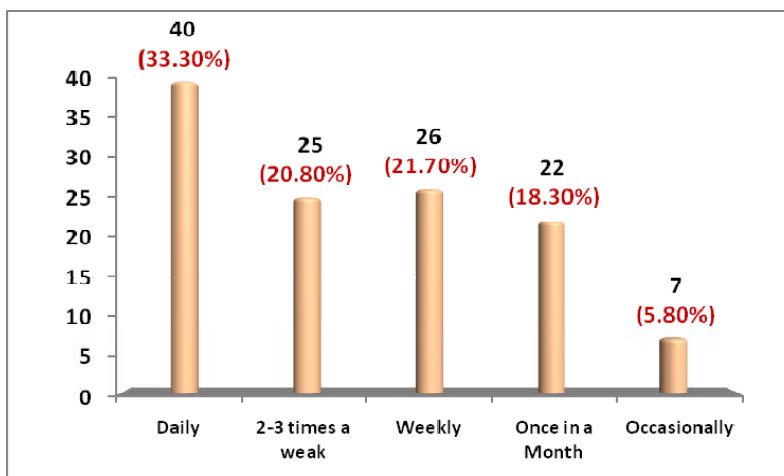


Figure 4: - Frequency of Usage

The above figure 4 depicts the frequency of use UGC Infonet. In the whole respondents 40 (33.30%) are frequency is daily, 25 (20.80%) of respondents frequency is 2-3 times a week, 26 (21.70%) of respondents frequency is weekly, 22 (18.30%) of respondents frequency is Once in a month, 7 (5.80%) of respondents frequency is occasionally.

Table 3: - Place of accessing UGC Infonet

Sl No.	Place of accessing UGC Infonet	(N=120)		
		Yes	No	Percentage
1	Library	97 (80.80%)	23 (19.20%)	120 (100.00%)
2	Residential Area	14 (11.70%)	106 (88.30%)	120 (100.00%)
3	Departmental Area	77 (64.20%)	43 (35.80%)	120 (100.00%)
4	Own office computer	19 (15.80%)	101 (84.20%)	120 (100.00%)
5	Computer centre	105 (87.50%)	15 (12.50%)	120 (100.00%)

Table 3 shows that the access points of use of UGC-Infonet, majority of the respondents agreed i.e. 97 (80.80%) using UGC-Infonet at library, followed by 14 (11.70%) at Residential area, the survey reveals that most of people were using UGC-Infonet at department lab 77 (64.20%), 19 (15.80%) at own office computer, and 105 (87.50%) at computer center, remaining people in not agreed out of 120 respondents, respectively.

Table 4:- Advantages of UGC Infonet

Sl No.	Advantages	(N=120)		
		Yes	No	Total
1	24X7	105 (87.50%)	15 (12.50%)	120 (100.00%)
2	Multi user access	69 (57.50%)	51 (42.50%)	120 (100.00%)
2	Ease of browsing	105 (87.50%)	15 (12.50%)	120 (100.00%)



3	Desktop access	78 (65.00%)	42 (35.00%)	120 (100.00%)
4	Downloading facility	103 (85.80%)	17 (14.20%)	120 (100.00%)
5	Current up to date information	103 (85.80%)	17 (14.20%)	120 (100.00%)
6	Ease of search	93 (77.50%)	27 (22.50%)	120 (100.00%)
7	Saved shelf space	70 (58.30%)	50 (41.70%)	120 (100.00%)

The results of the survey shows in the table regarding advantages of UGC Infonet. It is clear from the table that out of 120 respondents 105 (87.50%) are agreed 24X7 availability and Ease of browsing of UGC Infonet, 69 (57.50%) are considered multi user access, 70 (58.30%) are familiar with saved shelf space, 78 (65.00%) agreed with desktop access, 103 (65.00%) of the respondents had the similar opinion regarding the advantages of Downloading facility and Current up to date information. 93 (77.50%) are accepted Ease of search and 98 (81.70%) respondents goes to other.

Similarly, the table shows the other parts of the respondents who are not agree for the advantages considered by the survey. Out of 120 responses, 51 (42.50%) are not agreed to considered multi user access is the advantage of UGC Infonet, followed by 50 (41.70.00%) for Saved shelf space, 42 (35.00%) for Desktop access, 17 (14.20%) of the respondents are not agreed for Downloading facility and Current up to date information, 15 (12.50%) for 24X7 and Ease of browsing.

Table 5:- Problems of accessing UGC Infonet faced by the students

Sl. No.	Problems	(N=120)		
		Yes	No	Total
1	Low bandwidth	35 (29.20%)	85 (70.80%)	120 (100.00%)
2	Lack of ICT Infrastructure	34 (28.30%)	86 (71.70%)	120 (100.00%)
3	Accessing Problems	51 (42.50%)	69 (57.50%)	120 (100.00%)
4	Limited Core Journals	77 (64.20%)	43 (35.80%)	120 (100.00%)
5	Read from the computer	48 (40.00%)	72 (60.00%)	120 (100.00%)
6	Lack of computer knowledge	57 (47.50%)	63 (52.50%)	120 (100.00%)
7	Limited number of computer	65 (54.20%)	55 (45.80%)	120 (100.00%)

Table 5 shows the problems arises while using UGC-Infonet, which shows 35 (29.20%) respondents agreed for low bandwidth is the difficulty in using the UGC-Infonet resources (Previous study also says Biradar and Vinay Kumar 2015 the same problem facing 49 (57.65%), followed by Lack of ICT Infrastructure 34 (28.30%), 51 (42.50%) are facing the Accessing problems, 77 (64.20%) are considered Limited core journals, 48 (40.00%) are



respondents have run into the same problem as Read from the computer, 57 (47.50%) are accepted problems of Lack of computer knowledge, 65 (54.20%) are coated Limited number of computer (Previous study also highlighted by Biradar and Vinay Kumar 2015 the same problem facing 39 (45.88%)), remaining is not considered out of 120 respondents, respectively.

Table 6:- Purpose of UGC Infonet

Sl . No.	Purpose	(N=120)		
		Yes	No	Total
1	Course work and assignments	68 (56.70%)	52 (43.30%)	120 (100.00%)
2	Preparations for examinations and tests	66 (55.00%)	54 (45.00%)	120 (100.00%)
3	General reading	75 (62.50%)	45 (37.50%)	120 (100.00%)
4	For Updating knowledge	66 (55.00%)	54 (45.00%)	120 (100.00%)
5	For writing articles	102 (85.00%)	18 (15.00%)	120 (100.00%)
6	Class group discussions	62 (51.70%)	58 (48.30%)	120 (100.00%)
7	Seminars preparations	43 (35.80%)	77 (64.20%)	120 (100.00%)
8	Project	64 (53.30%)	56 (46.70%)	120 (100.00%)
9	Current developments	78 (65.00%)	42 (35.00%)	120 (100.00%)

The statistical table 6 reveals that out of 120 respondents 68 (56.70%) use the UGC Infonet for the purpose of Course work and assignments, of which 52 (43.30%) were not agreed , followed by 66 (55.00%) for Preparations for examinations and tests , 54 (45.00%) are not agreed, 75 (62.50%) are familiar with General reading and 45 (37.50%) are not familiar for this, 66 (55.00%) are agreed for updating knowledge (Previous study also highlighted by Margam Madhusudhan 2008 the same purpose 33 (52%)), 54 (45.00%) were not agreed for this, the majority of respondents 102 (85.00%) agreed the use of UGC Infonet for the purpose of writing articles 18 (15.00%) were not agreed (Previous study also highlighted by Margam Madhusudhan 2008 the purpose 9 (14.00%)), 62 (51.70%) favour of Class group discussions and 58 (48.30%) in favour of this, 43 (35.80%) friendly with Seminars preparations and 77 (64.20%) were unfriendly with this, 64 (53.30%) respondents agreed for project purpose, 56 (46.70%) were not agreed, and 78 (65.00%) respondents are friendly with Current developments, 42 (35.00%) respondents are unfriendly for this respectively.

Table 7:- Database usage

SI No.	Databases	(N=120)				
		Daily	2-3 times a week	4-5 times a month	Once or a twice a month	Never
1.	American Chemical Society	25 (20.80%)	16 (14.20%)	27 (22.50%)	16 (13.30%)	27 (22.50%)
2.	American Institute of Physics	26 (21.70%)	25 (20.80%)	21 (17.50%)	20 (16.70%)	28 (13.30%)



3.	American Physical Society	28 (23.30%)	18 (15.00%)	23 (19.20%)	22 (18.36%)	29 (24.20%)
4.	Annual Reviews	30 (25.00%)	19 (15.80%)	22 (18.30%)	25 (20.80%)	24 (20.00%)
5.	Blackwell-Wiley	30 (25.00%)	22 (18.30%)	18 (15.00%)	24 (20.00%)	26 (21.70%)
6.	Cambridge Uni Press	28 (23.30%)	10 (8.30%)	22 (18.30%)	35 (29.20%)	25 (20.80%)
7.	EPW	24 (20.00%)	32 (26.70%)	31 (25.80%)	12 (10.00%)	21 (17.50%)
8.	Emerald	12 (10.00%)	34 (28.30%)	20 (16.70%)	25 (20.80%)	29 (24.20%)
9.	Institute of Physics	31 (25.80%)	28 (23.30%)	16 (13.30%)	20 (16.70%)	25 (20.80%)
10.	JSTOR	19 (15.80%)	16 (13.30%)	21 (17.50%)	33 (27.50%)	31 (25.80%)
11.	Nature	34 (28.30%)	28 (23.30%)	22 (18.30%)	20 (16.70%)	16 (13.30%)
12.	Oxford Uni Press	27 (22.50%)	18 (15.00%)	19 (15.80%)	25 (20.80%)	31 (25.80%)
13.	Port Land	27 (22.50%)	21 (17.50%)	25 (20.80%)	16 (13.30%)	31 (25.80%)
14.	Project Euclid	30 (25.00%)	16 (13.30%)	20 (16.70%)	35 (29.20%)	19 (15.80%)
15.	Project Muse	28 (23.30%)	29 (24.20%)	26 (21.70%)	23 (19.20%)	14 (11.70%)
16.	Sage Publications	30 (25.00%)	24 (20.00%)	25 (20.80%)	14 (11.70%)	27 (22.50%)
17.	Springer	25 (20.80%)	27 (22.50%)	18 (15.00%)	16 (13.30%)	34 (28.30%)
18.	Taylor and Francis	16 (13.30%)	29 (24.20%)	25 (20.80%)	32 (26.70%)	18 (15.00%)

Above table 7 highlighted frequency of usage of UGC-Infonet databases, as shown in the Table 9, 34 (28.30%) of respondents like to use Nature Database, followed by 31 (25.80%) of respondents like to access Institute of Physics, whereas, 30 (25.00%) each of respondents right to use Annual Reviews, Blackwell-Wiley and Sage Publications databases and 27 (22.50%) of each respondents use Oxford University Press and Port Land databases on daily basis. Further, the survey determines that the usage of databases in 2-3 times a week, 27 (22.50%) and 29 (24.20%) of results for Springer and Project Muse. Subsequently 32 (26.70%) and 34 (28.30%) of respondents like to access EPW and Emerald respectively. 27 (22.50%) respondents like to access American Chemical Society databases 4-5 times a month. 35 (29.20%) of each Respondents access databases like Cambridge University Press and Project Euclid, followed by 33(27.50%) responses for JSTOR and 32(26.70%)respondents like access Taylor and Francis Once or a twice a month. 28 (13.30%) and 29 (24.20%) respondents never like to access databases.



Table 8:- Bibliographical database usage

Sl No.	Bibliographic databases	(N=120)				
		Daily	2-3 times a week	4-5 times a month	Once or a twice a month	Never
1.	JCCC	30 (25.00%)	33 (27.50%)	22 (18.30%)	17 (14.20%)	18 (15.00%)
2.	MathSciNet	27 (22.50%)	22 (18.30%)	20 (16.70%)	25 (20.80%)	26 (21.70%)
3.	Royal Society of Chemistry	19 (15.80%)	21 (17.50%)	26 (21.70%)	22 (18.30%)	32 (26.70%)
4.	SciFinder	18 (15.00%)	15 (12.50%)	24 (20.00%)	34 (28.30%)	29 (24.20%)
5.	SIAM	26 (21.70%)	22 (18.30%)	26 (21.70%)	21 (17.50%)	25 (20.80%)
6.	Web of Science	27 (22.50%)	30 (25.00%)	26 (21.70%)	18 (15.00%)	19 (15.80%)

Table-8 shows that users of , 26 (21.70%) and 27 (22.50%) used Bibliographical databases like SIAM and MathSciNet on daily basis, people make use of Web of Science and JCCC with 30 (25.00%) and 33 (27.50%) 2-3 times a week, followed by 26 (21.70%) users like to access Royal Society of Chemistry on basis of 4-5 times a month, more users like right to use SciFinder with 34 (28.30%) Once or a twice a month respectively.

Table 9:- Open access journals

Sl No.	Open access journals	(N=120)				
		Daily	2-3 times a week	4-5 times a month	Once or a twice a month	Never
	DOAJ	27 (22.50%)	24 (20.00%)	16 (13.30%)	23 (19.20%)	30 (25.00%)
	ICASE	27 (22.50%)	28 (23.30%)	12 (10.00%)	13 (10.80%)	40 (33.30%)
	Indian Academy of Science	31 (25.80%)	22 (18.30%)	21 (17.50%)	27 (22.50%)	19 (15.80%)
	Indian Journals	26 (21.70%)	20 (16.70%)	30 (25.00%)	19 (15.80%)	25 (20.80%)
	OAJSE	21 (17.50%)	22 (18.30%)	29 (24.20%)	8 (6.70%)	40 (33.30%)
	Open J-Gate	21 (17.50%)	24 (20.00%)	40 (33.30%)	18 (15.00%)	17 (14.20%)
	PubMed Central	33 (27.50%)	20 (16.70%)	21 (17.50%)	29 (24.20%)	17 (14.20%)

Table-9 represents the frequently usage of Open Access Journals , when we look into the data collected, it is clearly specified that users of 31 (25.80%) and 33 (27.50%) used Open Access Journals like Indian Academy of Science and PubMed Central on daily basis, Indian Journals and Open J-Gate are used by the user almost 4-5 times in a month, followed by



users never use to access DOAJ journals with 30 (25.00%) and subsequently ICASE and OAJSE with 40 (33.30%) each, respectively.

Table 10 : - Level of important of UGC Infonet

Level of Important	Yes	No	Percentage
Not at all important	36 (30.00%)	84 (70.00%)	120 (100.00%)
A little important	43 (35.80%)	77 (64.20%)	120 (100.00%)
Somewhat important	46 (38.30%)	74 (61.70%)	120 (100.00%)
Quit important	17 (14.20%)	103 (85.80%)	120 (100.00%)
Absolutely important	100 (83.30%)	20 (16.70%)	120 (100.00%)

From the above table 10 evaluated the level of important among the respondents regarding the use of UGC-Infonet point out that 36 (30.00%) of the respondents are considered not at all important. About almost 43 (38.80%) of the respondents are feel that little important , followed by 46(38.30%) respondents agreed it is somewhat important ,Just about 17(14.20%) are agreed that quit important and wide range of respondents of 100 (83.30%) settled their opinion for absolutely important. remaining out of 120 respondents, 103 (85.80%) are not agree for use of UGC –Infonet is quit important.

6. Conclusion

UGC info net consortium is largest digital information database is one of the largest e service in India and it will be very useful for academic and research community and scholarly communication. Thus it has been proved in the last ten years in the every corner of the academic environment. . These initiatives, however, have largely ignored the functional and technical requirements for the internal management of resources. It remains the responsibility of individual managers to acquire appropriate systems technologies and software to manage local collections and to integrate these with the external digital environment.

References

1. Bal Ram et al, (2014) / (IJCSIT) International Journal of Computer Science and Information Technologies, 5 (6) , pp.7977-7983.
2. Baljinder Kaur and Rama Verma (2009) Use of electronic information resources: A case study of Thapar University. DESIDOC Journal of Library & Information Technology, 29(2), pp.67-73..
3. Bhaskar Mukharjee and Prashant Kumar (2010) Use of UGC-Infonet e-journals by research scholars of the Banaras Hindu University, Varanas : A case study. Annals of Library and Information Studies, 57, pp.339-347.
4. Biradar and Kumar (2015). Awareness and use of UGC-INFONET E-resources among the PG female science students in Kuvempu University: A survey, Library Herald, 53 (2), pp.107-120.



5. Garg, N.K. (2014). Use of InfoNet digital library consortium at Kurukshetra University, Kurukshetra and Maharishi Dayanand University, Rohtak: A study. *International Journal of Information Dissemination and Technology*, 4(1), pp.79-84.
6. Harish Kumar (2014) Use of UGC INFONET Digital Library Consortium Resources by Guru Nanak Dev University Library Users, *Asian Journal of Multidisciplinary Studies*, 2(8), pp.171-174.
7. Jagdish Arora, Kruti J. Trivedi and Ajit Kembhavi (2013). Impact of access to e-resources through the UGC-INFONET Digital Library Consortium on research output of member universities. *Current Science*, 104(3), pp.307-315.
8. Kumari, M. P., & Lakshmi, S. Use of Electronic Journals through UGC-Infonet Consortium by the Research Scholars of Sri Venkateswara University, Tirupati A Study. *IOSR Journal Of Humanities And Social Science (IOSR-JHSS)*, 19(9), pp.67-74.
9. Madhusudhan, M. (2008). Use of UGC-Infonet e-journals by research scholars and students of the University of Delhi, Delhi: A study. *Library Hi Tech*, 26(3), pp.369-386.
10. Mothukuri Anjaiah (2014) 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. *International Journal of Digital Library Services*, 4(2), pp. 31-43.
11. Murthy, Cholin & Vijayakumar (2005). UGC-INFLIBNET initiatives in e-journal consortia and digital library of doctoral theses for Indian universities. In Paper accepted for National Conference on Digital Library and e-Theses (NCDLET 2005) held during January, pp.7-8.
12. Sharad Kumar Sonker, Anubhav Shah and Jyothi Shukla (2014) use of ugc infonet digital consortium by users of Central University of Allahabad: a survey. 4(4), pp.69-76.

