

Consortia: Access of E-Journals and E-Resources in the Universities of Jammu & Kashmir

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Abstract- This study deals with the indepth information of access of e-journals and e-resources in the Universities of Jammu & Kashmir. This study is limited to the Universities and institute of national importance in Jammu and Kashmir. Universities and organizations of national importance in the state of J&K has been covered in this study. The websites of the organizations were visited to find out the available access of their organization to the eJournals and eResources through the Consortium. In case it is not clear from the organizations' website then website of the consortium is accessed to find out as to for what are the resources access is being provided to the organizations. From the above study regarding accessibility of eJournals & eResources it can be concluded that the University Libraries in the state of J&K have access to sufficient information resources and potentiality to collaborate amongst one another for information exchange pertaining to a wide range of subjects including highly specific areas of Humanities & Social Sciences, Agriculture, Science, Technology and Engineering.

Keywords: Consrtica, E-Resources, Jammu & Kashmir

I. INTRODUCTION

Well informed society or citizenry is achieved only through better education imparted and better access to information. All round growth of a country largely depends on overall education and easy, inexpensive access to its citizens. The libraries/information resource centers /knowledge centers are the best place for information resources. Information or knowledge is contained in the publications (in the form of books and serials). In order to support education imparted at various education levels in the schools, colleges and universities libraries play a vital role as knowledge centers. Libraries procure books and periodicals both in print and digital form and provide access to its desired users. But hunger for information users can neither be satisfied nor should it be, because quest and growth of information is dynamic. Information is doubling in every 3-4 years. Old concepts get changed and new concepts come up for fast and easy management and dissemination of information — riding on the vehicle of information technology. In order to keep pace with time as well as latest digital technology e-Publishing by the online publishers is a big boon. This has helped information to reach the users as soon as it is published on the publishers' website. The internet technology is admirable since by now almost every educated or even uneducated are connected to internet with

the advent of Wifi and smart mobile technology. Meanwhile, although duration from publishing to reaching the users especially to the Libraries has been minimized yet price or subscription to information especially the journals has become very costly. However, at the same time budget allocation for the libraries remained the same. The question naturally kept puzzling the libraries, information and resources centres and knowledge management centers, as to how to economize without compromising access to resources like the journals especially the latest ones. The question kept worrying the knowledge managers for the last several decades and the daunting task still remains unsolved. Various concepts came into being in order to economize resources e.g. cooperative libraries, centralized libraries, ILL, union catalogue, world catalogue, reprint services, abstracting and indexing services and all. But with the passage of time digital libraries came into being.

The concept of Central Library or Centralized Library and Cooperative Library still holds good even today with reference to resource sharing. Let us go back a few decades when cooperative libraries came into being based on the concept of resource sharing. Libraries with similar collection of information resources came together with a view to enrich the overall collection by avoiding duplication while procurement and further sharing the resources amongst the participating libraries. In a cooperative library setup “the participating libraries allow for reciprocal borrowing amongst its members. Those with a valid library card from participating libraries are permitted to reserve materials and have them transferred to their library”, and return back to the owner library before being overdue.

II.COOPERATIVE COLLECTION DEVELOPMENT (CCD)

Consortium is defined as an association of independent libraries and/or library systems established by formal agreement, usually for the purpose of resource sharing. Membership may be restricted to a specific geographic region, type of library (public, academic, special), or subject specialization.

Consortial license / consortial subscription.

A licensing agreement for an electronic information resource in which the *licensee* is a group of libraries, instead of a single library or library system. Some vendors offer consortial discounts for their electronic products on the expectation of reduced operating costs and enhanced market penetration. The consortium may be pre-existing or formed specifically to take advantage of consortial pricing. Some consortia share licensing costs equally, others try to achieve fairness by allocating according to size of institution, usually based on library budget, total annual circulation, collection size, FTE (full-time equivalent), or a combination of factors. Some consortia use a hybrid of the two methods, sharing some costs equally and others according to a defined formula.

Consortia discount

A reduction in the annual subscription price of an electronic information resource for libraries that subscribe as a group, often calculated on a sliding scale, with the percentage discount proportional to the number of libraries in the consortium and eligibility determined by a fixed minimum number. Not all vendors are willing to give consortial discounts, but some do, usually on the expectation of reduced operating costs and enhanced market penetration. (Reitz, J. 2010)

III. LITERATURE REVIEW

Awareness & use of information archives/aggregators

Loan (2002) conducted a study in the central library of the University of Kashmir, known as “Allama Iqbal Library” which provides access to online information sources both subscribed and open access through different archives/consortia/directories like JSTOR, JCCC/UGC Consortium, Questia, Project Muse, Ebrary, EBSCOHOST, Directory of Open Access Journals (DOAJ), Directory of Open Access Repositories (OpenDOAR), and many others. The data depicts that majority of the scholars are aware of JSTOR (77.36%), UGC Consortium (64.15%) and Directory of Open Access Journals (DOAJ) (50.94%) respectively and highly make use of these archives during online search. (Loan, Fayaz Ahmad, 2002)

Consortia efforts: to meet diminishing budget, increasing demand and rising cost: JCCC Consortium, INDEST Consortium, CSIR E-journal Consortia, and UGC Infonet

Gulati (2004) in a study conducted at Jammu University highlights the consortia efforts in India like JCCC Consortium, INDEST Consortium, CSIR E-journal Consortia, and UGC Infonet. (Gulati, 2004).

INDEST (Indian National Digital Library in Science and Technology) Consortium

The Ministry of Human Resource Development (MHRD) established a “Consortia-based subscription to electronic resources for technical education system in India”. “Shared subscription” or “Consortia-based subscription” to electronic resources through the consortia of libraries is a feasible strategy to increase the access to electronic resources across institutions at highly discounted rates of subscription. The consortia-based subscription can be successfully deployed to meet the pressures such as diminishing budget, increased user’s demand and rising cost of journals.

The INDEST Consortium is the most ambitious initiative taken so far in the country. It would not only benefit 38 major technological institutions in the country (including IITs, IISc, NITs, IIITs, Regional Engineering Colleges (RECs), and others), but it also invites all AICTE accredited (All India Council of Technical Education) (www.aicte.ernet.in) and University Grants Commission (UGC)-affiliated institutions to join hands with the leading engineering and technological Institutions in India and share the benefits it offers in terms of lower subscription rates and better terms of agreement with the publishers. The consortiums’ headquarters is based at IIT Delhi. The membership of the consortium is open to any private or government funded engineering/technological/educational institutions/ universities for one or more electronic resources. The consortium will charge nominal annual fee for its services. The e-resources can be subscribed through the INDEST Consortium.

CSIR E-journals Consortia:

The Council of Scientific and Industrial Research (CSIR), established in 1942, is India’s largest research and development organization with 40 laboratories spread over the country. It has taken the major initiative in the Tenth Five-Year plan to form E-journal Consortium by signing agreement with e-journal publisher Elsevier Science for a period of four years for 1,200 journals, enabling CSIR scientists to access these journals and play vital role in strengthening research and development in CSIR laboratories, and leading to knowledge generation useful for socio-economic development of the country. The objectives are also to nucleate the culture of electronic access resulting into evolution of digital libraries. NISCAIR is the nodal organization for developing a “Consortium for CSIR laboratories for accessing e-journals”. The activity shall range from creation to monitoring of the access facility of scientific periodicals published by leading international institutions.

UGC Infonet:

Indian universities constitute one of the largest higher education systems in the world. With 294

universities/institutions, 13,150 affiliated colleges, 8.82 million students and 0.43 million teachers; it is great challenge to ensure effective coordination and communication. The University Grant Commission (UGC) has launched an ambitious programme to bring about a qualitative change in the academic infrastructure, especially for higher education. UGC is modernizing the university campuses with state-of-the-art campus wide networks and setting up its own nation-wide communication network named UGC-Infonet. Education and Research Network (ERNET) India, scientific society under the Ministry of Communications and Information Technology, in partnership with the University Grants Commission has set up UGC-Infonet. Under this programme it is proposed to use Information and Communication Technology (ICT) and the Internet to transform learning environment from a mono- to multi-dimensional one. UGC-Infonet will be a boon to the higher education systems in several ways: it will become a vehicle for distance learning to facilitate spread of quality education all over the country; It will be a tool to distribute education material and journals to the remotest of areas; it will be a resource for researchers and scholars for tapping the most up-to-date information; it will form a medium for collaboration among teachers and students, not only within the country but also all over the world; it will be an intranet for university automation; it will encompass the entire university systems for most efficient utilisation of precious network resources; and it will establish a channel for the globalization of education and facilitate the universities in marketing their services and developments. INFLIBNET, an autonomous IUC of the UGC, would be the nodal agency for coordination of the UGC-Infonet and facilitate linkage between ERNET and the universities. In the long run, each university will become a hub for the colleges affiliated to it.

UGC is also exploring the possibilities of alliances with publishers for adapting consortia based approach for electronic subscription of journals. These journals will be available over UGC-Infonet to all the universities. Much of the new research publications are also available on the net as freeware, thereby, making quality information accessible to a wider academic scholar base spread across the country at an affordable price.

Current Trends of Usage Statistics Of Networked Resources Of Various Publishers.

CHAND, PRAKASH, Satyabati, & CHAUHAN, (2007) examined and found that the escalating price of electronic journals, Indexing and abstracting databases along with traditionally published print subscriptions has forced library community to explore alternative means of subscription. The consortia based subscription is perhaps a solution for subscription of peer- reviewed journals. In India, during last five years we have witnessed many consortia based subscription, ranging from subject specific to institution specific. The advancement of Internet and telecommunication has made it possible to subscribe

network based resources to the users. The paper describes about the initiative taken by INFLIBNET in this direction and highlights the importance of current trends of usage statistics of networked resources of various publishers. Further the authors describe the patterns of electronic journal usage by the members of UGC-Infonet Digital library consortium during the last three years.

Identify the needs and requirements of UGC-Infonet LIS e-journals in DU

Madhusudhan (2008) on the use of UGC-Infonet e-journals by research scholars and students and aims to identify the needs and requirements of users in general and to know the use of UGC-Infonet Library and Information Science e-journals in the University of Delhi by research scholars and students of DLIS (Department of Library and Information Science) in particular.

A survey was conducted through a questionnaire circulated among 40 research scholars (PhD and MPhil) and 28 students (MLISc) studying in the DLIS, University of Delhi, Delhi, for the academic year 2006-07. The response rate was 94 per cent. The study shows that e-journals perform an increasingly important role in research at DLIS. Not only current e-journals are required, but research scholars and students need to be provided the use of significant electronic back runs as well. There is an ever increasing demand for subscriptions of more e-journal titles in LIS. There appears to be some need for academics to be provided with training in using e-journals. The area where need for training required is around managing references.

Usage of information formats

Kaur, (2009) in her studied the use of electronic resources and services provided at the central library of Indian Institute of Technology, Delhi. The paper is focused to know the users of electronic information services, frequency of usage of the services and the place where the information is accessed and users' preferences between an electronic /print journal format.

The questionnaire method is used for collecting the data from the users (i.e. undergraduate, postgraduate, research scholar and faculty), categories-wise was carried. It has been found that usage of e-journals is increasing; this is due to awareness among the users about the library e-resources and services. Owing to an easy access available at various places in the institute, users are accessing these resources at hostels and departments more as compared to the library. The users coming to library have decreased.

The present paper will help other institutes understand the need for library electronic resources, and motivate them to update their resources in the larger interest of the students, faculty and research scholars. The study also show the awareness and use of types of information services – the e-journals.

Funding for the libraries and electronic information resources

Balaji & Kumar (2011) in their study carried out at DRTC (ISI) Bangalore reveals that the funding for the libraries and electronic information resources is a predominant issue, as many educators continue to educate the learners without providing access to minimum course reading and information resources. Though traditional library services are widely available, insufficiently state-funded and private institutions, the electronic information resources are not accessible to many contrary to the Federal funded institutions like IITs and NITs have arrangements with international and national cooperatives and consortia. With no policy and review of needs assessment conducted nationally, disparities in availability of information resources, inequitable access, regional imbalances, and lack of coordination among the policy agencies are found to widely exist. Moreover, conducting periodical audits, cost sharing, cost-benefit analysis of institutional subscription resources and robust accreditation mechanisms for library development are not streamlined for institutional development. The standards and norms for funding the library services on a national scale need to be revised with the changing times to critically examine and determine the investments on information resources and teaching aids, for budget allocation, resource sharing and to ensure equitable access to all stakeholders in technical education. (Balaji B & Preedip, Kumar, 2011)

eJournal types and contributions ranging from universities to commercial publishers

Rufai, Gul, & Shah (2011) conducted a study in the Central Library of University of Kashmir. It was found that universities are the leading publishers of Open Archive (OA) Journals which publish 55 titles, accounting to 38.19 per cent of the total, followed by library associations and research centers & institutes with 32 (22.22%) and 22 (15.28%) titles respectively. Commercial publishers also offer 9 (6.25%) journals while 5 (3.47%) titles are result of individual efforts. Rest of 21 (14.58%) titles is an endeavour of societies, consortia and others. (Rufai, Gul, & Shah, 2011)

Awareness & use of information archives/aggregators

Loan (2012) in another study conducted, in the central library of the University of Kashmir, known as "Allama Iqbal Library" provides access to online information sources both subscribed and open access through different archives/consortia/directories, to find out how far the social science scholars' of the University of Kashmir, Jammu & Kashmir, India carrying the M.Phil. & Ph.D. research programmes, are aware and make use of online sources, search tools and techniques. Survey was done through questionnaire for data collection. The results reveal that majority of the scholars are aware and make use of search engines and OPACs. The findings also reveal that majority

of the scholars are aware and highly make use of JSTOR, JCCC, UGC Consortium and Directory of Open Access Journals (DOAJ) respectively whereas due to illiteracy other sources like Directory of Open Access Repositories (OpenDOAR), Project Muse, Questia, Ebrary, EBSCOHOST aren't used adequately. The findings also reveals that more than half of the scholars are aware and make use of JSTOR and UGC Consortium whereas others DELNET, Project Muse, Questia, Ebrary, EBSCOHOST, Directory of Open Access Journals (DOAJ) and Directory of Open Access Repositories (OpenDOAR) are not so popular among scholars. Study recommends enhancing online searching skills and awareness of the scholars. (Loan, 2012)

Collaborative Reference Service

Singh (2012) conveys that in the collaborative Digital Reference Service (CDRS), operated by the library of congress, is an international network of libraries, consortia, museums, Ask-a-services that uses a help desk system to route questions to appropriate institutions based on member profile.

Collaborative Reference Service model covering university libraries of northern India was studied and it was concluded that two or more libraries team up to offer reference service using any of the online formats like union list or union catalogue of participating libraries and also takes initiation towards providing consortia based resources to the libraries under study for serving the users in a better way. Library consortia are offering member libraries the opportunity to share reference questions with each other using the internet and other technologies. (Singh, 2012)

Impact of UGC-INFONET Digital Library Consortium on research and development activity in the universities:

Arora, Trivedi, & Kembhavi, 2013 in their research conveyed that over the last couples of years, the UGC-INFONET Digital Library Consortium has been providing Indian universities with electronic access to national and international scholarly journals. These journals cover 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.

The research carried in UGC-INFONET describes 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. (Arora, Trivedi, & Kembhavi, 2013)

From the foregoing facts revealed from the literature survey it can be concluded that there is a dearth of study and literature with regard to eJournals and eResources Consortium in the state of Jammu and Kashmir (J&K). Hence, a study is being undertaken to find out the status of Consortia and access to the resources in the J&K by actually visiting the resources available on the websites of the universities or institutions or *vice-versa*.

IV.SCOPE OF THE STUDY

This study is limited to the Universities and institute of national importance in Jammu and Kashmir.

V.METHODOLOGY

Universities and organizations of national importance in the state of J&K has been covered in this study. The websites of the organizations were visited to find out the available access of their organization to the eJournals and eResources through the Consortium. In case it is not clear from the organizations' website then website of the consortium is accessed to find out as to for what are the resources access is being provided to the organizations.

VI.DATA ANALYSIS

A study of access to e-Journals and e-Resources was carried out by visiting various websites of the universities and the institute of national importance of Jammu and Kashmir (J&K) and all these covered under the consortia.

The major universities of J&K are as follows:

- A. State universities:
 - a. General:
 - i. University of Jammu
 - ii. University of Kashmir
 - b. Special:
 - i. Baba Ghulam Shah Badsha University, Poonch
 - ii. Sher-e-Kashmir University of Agricultural Science & Technology, Jammu
 - iii. Sher-e-Kashmir University of Agricultural Science & Technology- Srinagar
 - iv. Shri Mata Vaishno Devi University - Katra
- B. Central Universities:
 - a. Central University of Jammu

- b. Central University of Kashmir
- C. Institute of national importance:
 - a. Indian Institute of Integrated Medicane – Jammu
 - b. National Institute of Technology, Srinagar

In order to meet the information resource (eJournals and eResources) requirement all the above mentioned universities are covered by at least one of the following consortia. The consortia are as follows:

- A. UGC-INFONET
- B. CeRA
- C. INDEST-AICTE
- D. NCRK

Firstly, Internet site of INFLIBNET showing access to various resources with the number of journals under the publishers were identified and is represented in the Table-X. Secondly, some of the e-resources are also subscribed through other consortium e.g. INDEST-AICTE Consortium by the Technical institutions since such resources are not covered by INFLIBNET. Thirdly, there are special subject consortium for special libraries like CeRA for Agriculture institutions e.g. SKUAST-J and SKUAST-K. Apart from this another specialized institution IIIM-CSIR is covered by NKRC.

Internet survey of the UGC-INFONET Consortium website of INFLIBNET www.inflibnet.ac.in for the Universities of J&K shows the following. In totality, the consortium is providing access to eJournals and eResources of 28 publishers covering 8259 online journals. Out of 28, 4 of them are databases. As per UGC-INFONET amongst the 7 established institutions and Universities, NIT-K has access to one eJournal publisher – the JSTOR i.e. 2585 eJournals. CUK has access to 10 eJournals & eResources (databases) namely Annual Reviews, CUP, EPW, JSTOR, OUP, Science Direct, Springer and ISID, JCCC i.e. 6602 eJournals and 2 databases respectively. Central University of Jammu as well as BGSBU have access to 7 publishers covering 6011 eJournals & 2 eResources respectively.

The University of Kashmir has access to all the publishers' eJournals and eResources except RSC Archive i.e. 27 eResources covering 8259 eJournals and 4 databases where as Jammu University does not have access to Archives of Nature, OUP, SIAM and latest SIAM Journals i.e. an access to 5997 eJournals and 4 eResources.

SMVDU has access to 9 Journals and eResources. 5269 journals & 3 eResources of the publishers like ACS, AIP, APS, AR, EPW, IOP, JSTOR, Springer Link, T&F. In addition to these, SMVDU also has access to ISID, JCCC and MathSciNet.

In addition to these SMVDU also subscribes to AICTE mandated eJournals and eResources like Elsevier Science (309 journals), IEL (160 Journals) i.e. a sum of 469 journals. In addition it has 6 databases of J-Gate, ProQuest

(ABIG), ASTM Digital Library e-Dictionary & McGraw-Hill Books and Classic Reference Work. SMVDU has access to consortia like INFLIBNET and INDEST-AICTE (5269, 469 journals respectively) i.e. a total of journals 5738; and 10 databases, e-Dictionary and Books, Classic & Reference Works.

NIT-K mainly depends on the access being provided by the INDEST-AICTE consortium for access to IEL (420 Journals), 586 Springer Link Journals, 304 journals of Elsevier, 34 journals of ASCE, 24 Journals of ASME, 1 journal of Nature, 154 Journals of Emerald, Indian standards, databases like JCCC, ProQuest Science, Compendex & INSPEC, ProQuest (ABI Inform), McGraw Hill : 250+ Books, Classic Reference works, and ASTM Digital Library – Online Dictionary i.e. a total of 1525 Journals, standards, and 4 databases.

However, while survey of SKUAST – J & SKUAST-K it could not be established whether any of the University has access to INFLIBNET/INDEST. Rather, they have access to a consortium CeRA (*Consortium for e-Resources in Agriculture* <http://cera.iari.res.in/>) for access to eJournal or eResources. Some of the reputed publishers along with the number of journals are listed, viz. AAAS-Advancing Science Serving Society (25 Journals), ASA- American

Society of Agronomy (6 Journals), ASM- American Society of Microbiology (13 Journals), Annual Review (25 Journals), BioOne (171 Journals), CSIRO (8 Journals), Elsevier (Science Direct) (419 Journals), Indian Journals (196 Journals), ISHS- International Society for Horticultural Science (1 Journals), IWA- International Water Association (12 Journals), NPG (2 Journals), OUP- Oxford University Press (30 Journals), Springer, (71 Journals), Taylor & Francis (1227), and CABI, JCCC (database) i.e. a total of 2206 eJournals and 2 databases from 15 Internationally publishers. In another survey of one of the CSIR laboratory – Indian Institute of Integrated Medicine at Jammu shows access to eJournals and eResources through the consortium NKRC. They have access to various online journals of publishers – AAAS (5), ACM (157 Journals), ACS (40 journals), AIP (18 journals), AR (30 journals), ASCE(31), ASME (23), Blackwell (754), CUP (87 journals), Emerald (75), ICE (23), IEL/IEEE (151), IOP (59), Indian Journals? (211), Nature (34), NRC Press, OSA (respectively 16 journals each), OUP (99), RSC (73), SAGE (102), Science Direct, Elsevier (180), Springer Link (2019), T&F (471), etc. Apart from these they have access to various valuable databases like ASTM, Delphion, Derwent Innovations Index, JCCC, Springer Protocols, WOS.

TABLE I ACCESS OF E-RESOURCES

S. No.	UGC INFONET Consortium http://www.inflibnet.ac.in									CeRA	NKRC
	e-Resources/eJournals Consortium	No. eJ/eR/others	NIT-K	Central Univ. of Kashmir	Central Univ Jammu	BGSBU	Jammu University	Kashmir University	SMVDU	SKUAST-Jammu; SKUAST-Kashmir	IIIM-J
1.	American Chemical Society	55					yes	yes	yes		40
2.	American Institute of Physics	19					yes	yes	yes		18
3.	American Physical Society	13					yes	yes	yes		
4.	Annual Reviews	33		yes			yes	yes	yes	25	30
1.	Cambridge University Press	224		yes			yes	yes			87
2.	Economic & Political Weekly	1		yes	yes	yes	yes	yes	yes		
3.	Emerald (Library Science)	30					yes	yes			
4.	Institute of Physics	46					yes	yes	yes		59
5.	ISID	database		yes	yes	yes	yes	yes	yes		
6.	JCCC	database		yes	yes	yes	yes	yes	yes		
7.	JSTOR	2585	yes	yes	yes	yes	yes	yes	yes		
8.	MathSciNet	database					yes	yes	yes		
9.	Nature	1					yes	yes			34
10.	Nature Archive								yes		
11.	OUP Archive							yes			
12.	Oxford University Press	206		yes			yes	yes		30	99
13.	Portland Press	10					yes	yes			

14.	Project Euclid	39					yes	yes			
15.	Project Muse	493					yes	yes			
16.	Royal Society of Chemistry	29					yes	yes			73
17.	RSC Archive						yes	No			
18.	Elsevier's ScienceDirect	1036		yes			yes	yes	304		1800
19.	SIAM	14						yes			
20.	SIAM ARCHIVE							yes			
21.	Springer Link	1438		yes	yes	yes	yes	yes	yes	71	2019
22.	Taylor & Francis	1079			yes	yes	yes	yes	yes	1227	471
23.	Web of Science	database					yes	yes			yes
24.	Wiley-Blackwell	908		yes	yes	yes	yes	yes			754
24	INFLIBNET 24=8259; 4 databases										
INDEST/AICTE Consortium source: http://paniit.iitd.ac.in/indest/index.php/downloads										CeRA*	NKRC**
Engineering											
1.	ASCE Journals Online	34	yes								31
2.	ASME Journals Online.	26	yes								23
3.	ASTM Digital Library	Online Dictionary							yes		y
4.	IEL Online/IEEE	420	yes						160		151
5.	Springer Link.	586	yes						INFLIBNET		
6.	Elsevier's Science direct.	304	yes						yes	419	
7.	JSTOR	2073	INFLIBNET						INFLIBNET		
8.	JCCC	Database	yes						INFLIBNET	YES	NKRC
9.	McGraw Hill	250+							yes		
10.	Nature Publishing Group	1	yes							2	
11.	ProQuest (ABI Inform)	Database							yes		
12.	ProQuest Science	Database	yes								
13.	Indian Standards	-	yes								
14.	Compendex and INSPEC EV2	Database	yes								
Management											
15.	Emerald	154							yes		75

AICTE=Total 15 resources; eJournals =3694; 1 Dictionary; eResources =4

Other than AICTE/Inflibnet											
	AAAS Science									25	5
	Association of Computing Machinery										1577
S. No.	e-Resources/eJournals Consortium	No. eJ/eR/others	NIT-K	Central Univ. of Kashmir	Central Univ Jammu	BGSBU	Jammu University	Kashmir University	SMVDU	SKUAST-Jammu; SKUAST-Kashmir	IIIM-J
	American Society of Agronomy									6	

ASM- American Society of Microbiology										13	
BioOne										171	
CABI	database									Yes	
CSIRO										8	
Institution of Civil Engineers											23
Indian Journals										196	211
International Society for Horticultural Science										1	
International Water Association										12	
NRC Press											16
OSA (optical Society of America)											16
SAGE											102
Delphion	database										Yes
Derwent Innovations Index	database										Yes
<i>Springer Protocols</i>	database										yes

TABLE II E-JOURNALS & E-RESOURCES ACCESS THROUGH INFLIBNET TO UNIVERSITIES AND INSTITUTIONS OF JAMMU AND KASHMIR

S. No.	NAME	URL	ORGANISATION
1	*Consortium for e-Resources in Agriculture(CeRA)	http://cera.iari.res.in/	IARI (ICAR), Delhi
2	INDEST/AICTE Consortium	http://paniit.iitd.ac.in/indest/index.php	IIT, Delhi
3	**National Knowledge Resource Consortium (NKRC)	http://nkrc.niscair.res.in/OnlineJournal.php	NISCAIR, (CSIR), Delhi
4	UGC INFONET Consortium	http://www.inflibnet.ac.in	INFLIBNET, Ahmedabad

TABLE III COMPREHENSIVE ACCESS TO EJOURNALS & ERESOURCES

Resource Name/type	e-Resources	24	11	10	7	7	20	24	17	15	26
	eJournals	8259	1525	6602	6011	6011	5997	8259	5738	2206	7714
	Databases	4	4*	2	2	2	4	4	3+7*=10	1	4
	Others	0	Dictionary, Books, classics &Reference work, Standards						Dictionary, Books, classics &Reference work		
*INDEST-AICTE/AICTE MANDATED = 15 Resources; 3694 eJournals & 4 eResources + 1 online dictionary											

From Table III the comprehensive representation of e-Journals and e-Resources of 4 consortia comprising the rich resources are reflected. Out of which INFLIBNET alone have 8259 eJournals and 4 databases i.e. it provides access to 24 publishers resources. Through INDEST-AICTE to 15 resources one can access to 3694 eJournals, 4 databases mandated by AICTE with options and 1 online dictionary.

In case of of NKRC i.e. IIM (Jammu) there are 26 resources out of which 4 are databases and 26 publishers resources with 7714 eJournals access. CeRA with 15 publishers resources provides access to 2206 eJournals and 1 database to SKUAST Jammu as well as Kashmir. The huge information potential rich resource is within access is concentrated to 9 organizations.

VII. CONCLUSION

From the above study regarding accessibility of eJournals & eResources it can be concluded that the University Libraries in the state of J&K have access to sufficient information resources and potentiality to collaborate amongst one another for information exchange pertaining to a wide range of subjects including highly specific areas of Humanities & Social Sciences, Agriculture, Science, Technology and Engineering. Out of these the University of Kashmir, University of Jammu, SKUASTs, IIM, SMVDU are rich in eJournals and eResources. There is possibility of potential growth in education, research and development in the future years since there exists a direct correlation between both the factors of availability of resources and growth in education and research. Further, such organizations should collectively opt for information sharing and exchange amongst like-minded organizations along with formation of state funded consortium. This shall help incorporating rest of the required eJournal publishers on the subjects and for supporting requirement of information of the small institutions in the larger benefit of the state.

UNIVERSITIES/ ORGANISATIONS and URLs

1. All India Council of Technical Education www.aicte.ernet.in
2. National Institute of Technology, Srinagar <http://www.nitsri.net/>
3. University of Kashmir www.kashmiruniversity.net/
4. Central University of Kashmir www.cukashmir.ac.in
5. Central University of Jammu <http://cujammu.ac.in/>
6. Baba Ghulam Shah Badshah University, Rajouri Jammu www.bgsbuniversity.org
7. University of Jammu - Post Graduate & Higher Education ...www.jammuuniversity.in
8. Shri Mata Vaishno Devi University (SMVDU) www.smvdu.net.in/
9. Indian Institute of Integrative Medicine (IIM), Jammu, J&K. www.iiim.res.in/
10. SKUAST | Sher-e-Kashmir University Of Agricultural Science and Technology-Jammu... www.skuast.org/
11. SKUAST | Sher-e-Kashmir University Of Agricultural Science and Technology ...www.skuastkashmir.ac.in

REFERENCES

- [1] Arora, J., Trivedi, K. J., & Kumbhani, A. (2013). Impact of access to e-resources through the UGC-INFONET Digital Library Consortium on research output of member universities. *CURRENT SCIENCE*, 104(3), 307–315.
- [2] Balaji B Preedip, Kumar, V., & (Documentation Research & Training Centre , Indian Statistical Institute Bangalore, I. (2011). Use of web technology in providing information services by south Indian technological universities as displayed on library websites. *Library Hi Tech*, 29(3), 470 – 495. Retrieved from http://www.drct.isibang.ac.in/xmlui/bitstream/handle/1849/506/Use_of.pdf?sequence=1

- [3] CHAND, P., PRAKASH, K., Satyabati, T., & CHAUHAN, S. K. (2007). ACCESS TO SCHOLARLY LITERATURE IN HIGHER EDUCATION INSTITUTIONS UNDER INFLIBNET CONSORTIUM. In 5th International CALIBER - 2007, Panjab University, Chandigarh, 08-10 February, 2007 (pp. 8–10). Chandigarh: Panjab University.
- [4] Gulati, A. (2004). Use of information and communication technology in libraries and information centres: an Indian scenario. *Electronic Library*, 22(4), 335–350. Retrieved from 10.1108/02640470410552974
- [5] Kaur, B. (2009). Use and impact of electronic journals in the Indian Institute of Technology , Delhi , India. *Library*, 27(4), 611–622. doi:10.1108/02640470910979570
- [6] Loan, F. A. (2012). ONLINE INFORMATION LITERACY OF THE SOCIAL SCIENCE RESEARCH SCHOLARS. *International Journal of Digital Library Services*, 2(2), 1–7. Retrieved from http://www.ijodls.in/uploads/3/6/0/3/3603729/full_paper_vol-2_issue-21_.pdf
- [7] Loan, Fayaz Ahmad (University Of Kashmir, S. (2002). ONLINE INFORMATION LITERACY OF THE SOCIAL SCIENCE RESEARCH Scholars. *International Journal of Digital Library Services*, 2(2), 1–7.
- [8] Madhusudhan, M. (2008). Use of UGC-Infonet e-journals by research scholars and students of the University of Delhi, Delhi. *Library Hi Tech*, 26(3), 369–386. doi:10.1108/07378830810903300
- [9] Reitz, J. (2010). “Digital library”, *Online Dictionary for Library and Information Science*, available at: www.abcclio.com/ODLIS/odlis_D.aspx
- [10] Rufai, R., Gul, S., & Shah, T. A. (2011). Open Access Journals in Library and Information Science: the story so far. *Trends in Information Management (TRIM)*, 7(2), 218–228. Retrieved from <http://ojs.uok.edu.in/ojs/index.php/crdtr/article/view/26>
- [11] Singh, N. K. (2012). DIGITAL REFERENCE SERVICE IN UNIVERSITY LIBRARIES: A. *International Journal of Library and Information Studies*, 2(4), 1–17.