



Document delivery and resource sharing: A collaborative consortium approach by Indian agricultural libraries

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ABSTRACT

Indian Agricultural Libraries are exploring new ways and collaborations to fulfill the information need of their patrons through resource sharing and delivering documents using online platform accessible 24X7. The article discusses Inter Lendig and Document Delivery Services (DDR) facilitated through a collaborative consortium Journal Gateway called CeRA under Indian National Agricultural Research System. CeRA the (Consortium for e-Resources in Agriculture) provides a platform for online access to e-journals and inter lending. DDR Services has been established to share resources subscribed by individual libraries as well as consortium journals using the web portal. The article also discusses of the use of DDR services by patrons of the first Indian Agricultural University in the country. Reports that the student community were most active in using the platform for inter library loan and document request in comparison to the faculty researchers who were less dependent on document from other libraries.

KEYWORDS

Agricultural Universities; CeRA; consortium; document delivery request; document supply; inter library loan; Indian agricultural libraries; resource sharing

Introduction

The Indian libraries have transformed gradually and undergone dramatic changes due to technological interventions. The libraries, are now, more focused towards providing access to information and learning resources from digital and online resources. The libraries have moved from automated work environment to digitization and to digital platforms to open up their resources and deliver web-based services accessible round the clock, irrespective of locations. The driving forces have been the paradigm changes in access to information from remote locations, revolution in digital sources of information and greater dependency of the patrons on e-resources, besides globalization and internationalization.

Indian agricultural and research system has a great network of 74 agricultural universities in the country and 98 Research Institutes, National Research Centers, Project Directorates and National Bureauex (ICAR,

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2017) spread across different states of the country to further agriculture growth in terms of research, teaching, and to generate trained and qualified manpower to work towards achieving food security for **1.311 billion people** of India, (World Bank Report, 2017) these include Central and State Agricultural Universities, Deemed Universities, and Agricultural colleges besides the specialized Crop Research Institutes functional under the Indian Council of Agricultural Research (ICAR). All these Institutions have libraries to support their academic missions. The libraries serve as the academic heart of the universities to support teaching programs, research, and extension activities by investing in environment conducive to research and learning.

Libraries cannot be sustained individually without sustainable flow of adequate grants from time to time, therefore importance of digital libraries, union catalogs, digital repositories, and digital platform for collaborative networking and sharing resources has become more relevant today among the Indian Libraries. The Indian agricultural libraries were progressing slowly (in place of heavily) in automation and digitization in the past two decades due to want of financial resources, skills, and expertise. The launch of world bank supported National Agricultural Innovative Project (NAIP, 2012–2013) in 2006 implemented by the Indian Council of Agricultural Research marked new horizon, brought new ideas, vision, and transformation in library services and transition from print to digital sources. These projects largely aimed to strengthen agriculture research more IT oriented to meet the current market trends and changing demands of the consumers which is also applied to the patrons/users of the libraries.

Under strengthening of “Digital Library and Information Management” of Indian National Agricultural Research System (NARS) several innovative projects were conceived in the year 2007, that evolved, materialized, and now sustained. These include projects like e-Grant under which Krishikosh – a repository for digitization of rare books and institutional resources; project Krishiprabha for digitization of research scholars PhD dissertations, CeRA the Consortium for e-Resources were developed, these initiatives transformed the Indian Agricultural Libraries in a big way leading them to digital platforms and collaborative resource sharing.

The Consortium for e-Resources for Agriculture (CeRA) is an e-journal consortium digital library providing online access of select journals to all agricultural research institutes and state universities under National Agricultural Research System (NARS) of Indian Council of Agricultural Research (ICAR). The consortium was conceived and established as a project under the major National Agricultural Innovative Project in 2008 for facilitating access to scientific online journals and continues to provide access to several e-journals in a sustainable way by including more number

of journals from time to time. In the year 2016–2017 a number of journals from soil sciences and other disciplines were added, the consortium also provided access to Web of Sciences to some Institutes like Indian Agricultural Research Institute (IARI). The central subscription and creation of a web portal called CeRA opened a new system for resource sharing among all Research Institutes of ICAR and Agricultural Universities in the country through IP authentication. The CeRA Jccc.in has more than 60,000 links in the web and continues to grow over the years.

J-Gate Custom Content for Consortium (JCCC) is a virtual digital library of e-journal resources or a portal customized to provide an electronic gateway to global e-journals accessible everywhere, including subscribed as well as open access journals. The E-journal gateway and database solution is managed by Informatics India Ltd., Bangalore, India. Launched in the year 2001, the portal provides seamless access to millions of journals articles available online offered by 13,156 publishers. J Gate at present hosts contents from 47,174 e-journals (CeRA, J-Gate, 2017) with more than 10,000 journals added almost every day. The site is constantly updated to ensure freshness and reliability of the content. The portal captures and indexes articles from more than 23,706 open access e-journals and maintains links to them for quick and effortless accessibility.

The important features of J-Gate is that it supports online subscription to journals, achieving, electronic Document Delivery Request (DDR) and other services related to consortium users, for example, provide access to those journals that are not subscribed by the consortium by including exclusive journals subscribed individually by the consortium members university libraries to promote Interlibrary loan or Document Delivery services. J-Gate also facilitates a common interface for all the publishers' content subscribed or not subscribed by the consortium precisely J-Gate@consortia acts as a search platform for the academic community and provides resource sharing facility for the members of the consortium.

This article discusses and provides background information and functioning of the collaborative consortium called CeRA-a brief overview, its important features like embedded document delivery system, a one stop platform for Interlending and resource sharing, and a study of document delivery service at G B Pant University of Agriculture and Technology, a renowned first Indian agricultural university that played a significant role in leading green revolution in the country. The university is also remembered for laying the foundation of revolutionary era in agricultural education in India.

This study will analyze the document requests made by the academic community of the university from other institutions year wise, and see the popularity of the DDR services among the students and faculty members.

The study will also look at each item requested discipline wise to know patrons subject interest considering the university having several constituent colleges. Questions on most popular destinations or institutions for requesting research article by university community in the country is also explored. Finally the study concludes with recommendations that there is a need to work towards creating awareness and educating the patrons about the ILL and DDR through online system/services for best use of the platform.

Background: CeRA e-journal consortium

CeRA consortium covers more than 3000 scholarly journals comprising a collection of consortium subscribed journals, library subscribed, and open access journals. The consortium includes journals from major publishers as indicated below in Table 1 and caters to more than 134 research institutions and state universities (registered user group members) across the country falling under the Indian National Agricultural Research system. These journals have been made available over the network for use by the scientific community and are in agreement to share their resources and infrastructure for Interlibrary Loan or Document Delivery.

The Comprehensive content database of the consortium journals is quite user friendly in terms of searching and accessing resources. It is classified into three levels of subject category and is searchable by all popular combinations like title, author, subject categories, keywords, etc. The database also provides links to full text articles from both open access and subscribed journals with contact details of authors were available (Figure 1).

The web portal of CeRA also rolls out DDR services for the journals subscribed by member libraries (other than CeRA) and promotes resource sharing. The journals subscribed by libraries under consortium can be requested by patrons of any agricultural university or research institute, for which a hard/soft copy is provided by the host library under the agreement. The consortium has twin objectives for resource sharing of e-research/journal material and also to deliver documents in print.

Table 1. Consortium and journals subscribed by ILL libraries.

Subscriptions	Publishers	No of Journals
Subscribed by CeRA*	Annual Review	22
	CSIRO	08
	Elsevier	358
	Indian Journals	131
	Springer	70
	Taylor Francis	1079
Subscribed by ILL Libraries*	Different publishers	1700 plus

*CeRa – The e-journal consortium for National Agricultural System. Current Science 102(6) 2012 p.850-851.

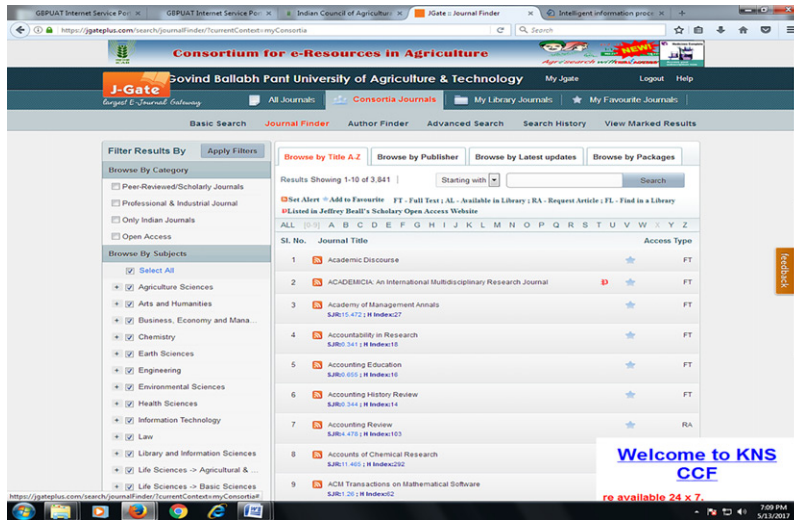


Figure 1. Access to online journals through CeRA portal.

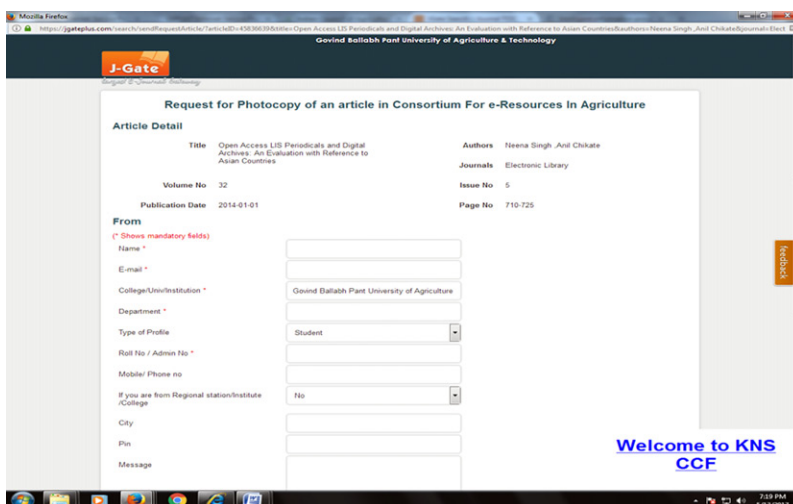
Document delivery and interlibrary loan

The DDR service allows the students and faculty members to have journal articles delivered to them through their university/institutes library. The DDR services were initiated by CeRA in collaboration with about 134 libraries of member institutes to fulfill interlibrary lending request from patrons across the country. The Libraries in collaboration or all libraries of member institutes under ILL together subscribes to about 1700 journals that are not available through the Consortium (Chandrasekhran et al., 2012). Patrons from the CeRA member institute/university can request for a copy of an article from journals not subscribed by their libraries from other CeRA member institutions under DDR service.

The DDR services developed at all CeRA member institutes and universities facilitates sharing of print version of scientific articles for those libraries who do not have it without any additional cost. Due to large number of article requests five articles per user per session are entertained, request exceeding more than five articles has a charge of a very small amount of Rs 10 per article. (CeRA,7) A nominal charge has been extended to encourage patrons to make best use of the DDR Services over web portal (Figure 2).

The Indian agricultural libraries have a huge collection of back volumes of journals in print subscribed over the period of years and others currently subscribed journals. The arrangement under CeRA consortium for DDR has been quite fruitful for the researchers and the academic community.

The individual library subscribed journals resource database of CeRA at J-gate portal is updated regularly for resource sharing. Request for journals can be made online through the CeRA-JCCC portal to different libraries having those journals and have them delivered through the library.



J-Gate
Request for Photocopy of an article in Consortium For e-Resources In Agriculture

Article Detail

Title	Open Access LIS Periodicals and Digital Archives: An Evaluation with Reference to Asian Countries	Authors	Neena Singh, Anil Chikate
Volume No	32	Journals	Electronic Library
Publication Date	2014-01-01	Issue No	5
		Page No	710-725

From
(* Shows mandatory fields)

Name *

E-mail *

College/University *

Department *

Type of Profile

Roll No / Admn No *

Mobiler/ Phone no

If you are from Regional station/Institute /College

City

Pin

Message

Govind Ballabh Pant University of Agriculture

Student

No

Welcome to KNS
CCF

Figure 2. Document delivery request through CeRA web portal.

Document delivery process

Through CeRA J-gate platform photocopies of journal articles can be requested online by the research scholars and faculty members from any member University or Research Institute library within the consortium directly without depending on the library (library staff) almost free. The respective university library that host the journal (in case of print journal) coordinates to provide the photocopies of the requested article and mails it to the patron's university library where from it can be collected. Patrons can also track request history and fulfillment status of request made through the portal itself.

The DDR service arranges to deliver articles from journals subscribed by different member libraries which are not subscribed by the consortium. Currently, more than 147 Institutions in National Agricultural Research System (NARS) have 24 × 7 online access to important selected journals in CeRA platform through IP authentication.

The consortium continues to play a key role in research and development activities in NARS. The aim is to facilitate access to e-journals and to provide a platform for resource sharing through interlibrary loan and DDRs by students and research community. The present article explores the use of CeRA platform and DDR services at G B Pant University of Agriculture and Technology.

Established in 1960, the first public Agricultural university of the country to promote agricultural research and teaching, and to generate skilled manpower in agricultural services when the country was facing shortage of food grains, the mission was to bring green revolution in the country. The contribution of the university was recognized by Norman Borlaug as the

“Harbinger of Green Revolution in India” (Sharad Pawar, 2008). The university research community provided a significant force in development and transfer of high yielding variety seeds and related technology (UPAU, 1964) to the farmers.

The university library is integral to the G B Pant University of Agriculture and Technology’s mission to provide agricultural knowledge and information to support three-fold functions of the university, i.e. teaching, research, and extension activities. The library works in partnership with the university’s academic community to provide access to quality information and to foster scholarship with its extensive collection and services. The library houses nearly 4.11 lakh volumes and provides electronic access to a number of periodical titles besides books and databases. (Annual Report, 2015–2016)

The University library has a special place in the country owing to the fact that it supported the university in heralding the green revolution in 1960’s and imparting quality education to students in in the field of Agriculture and Technology. The university is member of CeRA since the establishment of consortium in 2007. The library provides its updated subscribed journals holding every year to CeRA-J-Gate portal for resource sharing facilitating document request and delivery. The database of journals subscribed by the different individual libraries of universities and ICAR research institutes across the country are made available through J-Gate portal of the consortium.

Objectives of the study

The article proposes to evaluate the use of document delivery services by patrons of G B Pant University of Agriculture and Technology (GBPU&AT). The article rests on the following objectives that will contribute towards understanding of use of online consortium platform for Document Delivery and Interlibrary Loan in a University system.

1. Find document requests made by academic community of GBPU and AT from other Indian institutions.
2. Analyze document requests made by different categories of patrons.
3. Examine discipline wise documents requests.
4. Identify popular institutions for interlibrary loans and document request.

Methodology, scope, and limitations

The data for this study were gathered from records of the university library and emails received from patrons for documents requests from different

Agricultural universities and research Institutes. The data were classified, tabulated, and analyzed in accordance to the objectives of this study. The study is limited to document request made by patrons of G B Pant University of Agriculture and Technology in five years, i.e. from 2012 to 2016. The purpose of this study is to know the interest of the university community in Interlibrary loans and document requests. Although the study is limited to five years data, the findings are suggestive of trends which are important for library profession to understand the patrons interest on use of online platform for making document request precisely the e-journals from other institutions.

Literature review

Many studies have been conducted in Interlibrary Loan and document delivery under traditional system but few of them focus on consortium platform and use of consortium platform having embedded document delivery and interlibrary loan system for resource sharing is emerging as a new experience for Indian agricultural libraries.

Jose and Pacios (2005) examined the impact of consortia purchased periodical publications on document supply services finds that users acceptance of electronic journals is excellent. Consortium purchasing models in Spanish libraries have become a basic tool that expands collections, support cooperative technological development, and negotiating skills of the librarians. The author points out that though these methods are cost effective but purchases do not seem to be ideal solution for the libraries as they entail losing freedom when choosing the collection often making library collection homogeneous by the publishers leaving little choice for the patron for document request.

Goodier and Dean (2004) analyzed the changing patterns in interlibrary loan and document supply requests in 10 higher education Institutions of UK. The author looks at a number of possible reasons for the downturn in the volume of ILL and DDRs. Reports that the increase in number of electronic journal subscriptions has significant impact on the decrease in demand for ILL and document supply services in UK academic libraries.

Echeverria and Sonsoles (2011) provides insights into interlending and document supply practices in Spanish Library consortium and presents the trends in academic ILS services. The author finds that Spanish libraries experienced increase in document supply after some years of decline interlending and low use of journals. Describing the interlibrary loan services of Canadian libraries and archives, Kelsall and Onyszko (2010), finds that demands for institutions traditional ILL services is declining and the focus is turning more to digital access.

Yao (2012) on interlibrary loan and document delivery in China states that Chinese academic library consortium promotes resource sharing among Chinese academic libraries to meet users information needs and has a bright future. Explaining the situation of Interlibrary loan, document supply, and current infrastructure in the Netherlands, Stapel (2016) pointed out that document supply has declined dramatically over past 10 years and the country was going through a period of great change as OCLC moves its library services to the cloud-based worldshare platform.

If we look at the Interlending, document delivery and resource sharing among Indian libraries, the situation is quite encouraging. India is a vast country having many universities spread across remote places. Owing to reducing library grants, constantly coupled with information explosion academic libraries in India are finding it increasingly difficult to sustain and meet the demands of their patrons. To meet the information needs of the patron in the current situation a number of initiatives were taken by the University Grants Commission (UGC) and other granting bodies like Indian Council of Agriculture Research (ICAR) to upgrade the libraries to electronic mode of delivering services and resource sharing by means of consortiums. Salgar and Murthy (2003) highlights the initiatives launched by the university grants commission through Information and Library Network (INFLIBNET) center, efforts made to provide electronic resources by establishing a network and setting up document delivery centers across the country. Describing the INFLIBNET and the experience of UGC-INFONET for resource sharing and document supply at University of Pune, Desale, Londhe, and Patil (2009) reports that the service provided by the library is quite satisfying with some good features, but the consortium database and the platform has certain deficiencies in fulfilling the overall objectives.

A study by Chandrasekharan et al (2012) on Consortium for e-resources in agricultural sciences (CeRA) highlights online access of select agricultural journals to the research community in National Agricultural Research System and the important features that it offers like the Interlibrary loan or the document delivery services to member institutions. Reports the status of DDR services of the consortium as a whole across the country in different years from 2008 to 2011, points that there has been a continuous growth in DDR services, The research community of the country made the highest number of document request in the period between 2010 and 2011. The authors also observed that there was a significant increase in quality and quantity of publications after establishment of the consortium Mahapatra (2013).

Panda, Arora, and Rai (2016) focuses on the use of interlibrary loan and document delivery services at Information and library network center

Table 2. Document requests by patrons of GBPU&AT from other Institutions.

Distribution year wise					
Months	2012	2013	2014	2015	2016
	No. %	No. %	No. %	No. %	No. %
Jan	10 16.66	06 6.06	06 10.35	02 2.35	02 2.86
Feb	04 6.66	25 25.25	03 5.17	01 1.18	10 14.28
March	05 8.34	09 9.09	02 3.45	06 7.06	22 31.43
April	07 11.66	02 2.02	07 12.07	04 4.70	07 10.00
May	09 15.00	12 12.12	11 18.96	33 38.83	05 7.14
June	04 6.66	06 6.06	03 5.17	01 1.18	05 7.14
July	05 8.34	02 2.02	01 1.73	02 2.35	01 1.43
August	02 3.34	07 7.07	01 1.73	04 4.70	02 2.86
Sept	03 5.00	08 8.08	09 15.51	25 29.42	10 14.28
Oct	02 3.34	07 7.07	05 8.62	04 4.70	01 1.43
Nov.	07 11.66	06 6.06	02 3.45	02 2.35	03 4.29
Dec	02 3.34	09 9.09	08 13.79	01 1.18	02 2.86
Total	60	99	58	85	70
Percentage	100%	100%	100%	100%	100%

under the UGC-Infonet digital library consortium. The universities that are supported by the UGC are members of the consortium and practice inter-library lending and deliver documents to share resources for their academic community.

Analysis and findings

The analysis in this study as far as practicable is made more depletive with hope to serve the interest of readers. Keeping the structural arrangement of data in view it has been analyzed as follows. Table 2 shows the number of requests made by the students, faculty members, and researchers of the university community.

The state of documents requested by patrons yearwise and most active period in terms of months where documents were requested most is illustrated in Table 2. It is observed that the highest requests were made in the year 2013 with a total of 99 document requests made under Document Delivery followed by 85 requests in the year 2015. If we look at the time of the year when most request for journal articles were made by the researchers' it varies while in the year 2013 is February and 2016 is March. May and September received most requests throughout the year. The possible reasons for active period is perhaps the beginning of academic year (extending in two semesters) in July through December and January through June. The students involve themselves in projects/research work and assignments by February and March which is to be completed by semester end. September is active month for document request where students look into e-resources to complete their project work by end of academic year, i.e. December.

Table 3 presents the distribution of documents requested by students and faculty researchers of GB Pant university. It is noted that most requests

Table 3. Document supply requests by patrons.

Documents requested by different categories of patrons						
Sl No.	Patrons	2012 No. %	2013 No. %	2014 No. %	2015 No. %	2016 No. %
1	Students	50 83.33	87 87.88	53 91.38	63 74.11	35 50.00
2	Faculty Researchers	10 16.67	12 12.12	5 8.62	22 25.88	35 50.00
	Total percentage	60 100	99 100	58 100	85 99.99	70 100

for documents through interlibrary loan (using CeRa platform) were made by the student community, especially the post-graduate students, who are likely to be more dependent on research information to complete their research assignments and project works required essentially, for completing their courses. Indian Post-graduate programs in agricultural sciences incorporates a research component and project work besides the basic course content that is offered. More than 70% of Document request were made by the student community from different libraries under ILL over the period of five years.

It is noted that faculty researchers were less dependent on documents from other libraries under interlibrary loan. Less than 30% request were made in all years from 2012 to 2015, depicting that the CeRA-DDR portal was almost underutilized by them. Maximum requests were made in the year 2016 with nearly 50% documents delivered in different disciplines. It is likely that many faculty members are not aware of the DDR services and the online platform for interlibrary loan. The DDR services is much more popular among the students community. Students learn about the online platform and services from fellow students and the Information literacy courses offered to them. The figures in Table 2 also indicate that awareness and the use DDR services gradually increased among the faculty researchers from less than 20% in 2012 to almost 50% in the year 2016 which is quite encouraging and may be concluded that faculty has started taking interest in DDR services over online platform. However, further extensive studies are required to have a clear picture of the popularity of DDR services among faculty in later years (Figure 3).

The university has seven constituent colleges such as College of Agriculture, College of Basic Sciences and Humanities, Community Sciences, College of Veterinary and Animal Husbandry, Agribusiness Management, Fisheries, and College of Technology. Table 4 reveals the distribution of documents requested by the patrons discipline/the department wise. It is observed that most request from 2012 to 2013 were made by the patrons from horticulture and vegetable sciences and they have been most involved in using the CeRA platform for accessing the e-journals and the document delivery services. Researchers from veterinary sciences requested maximum articles in years 2015 and 2016. Besides, the horticultural sciences and veterinary sciences, researchers from food technology and agronomy discipline showed continual interest in requesting documents from other libraries

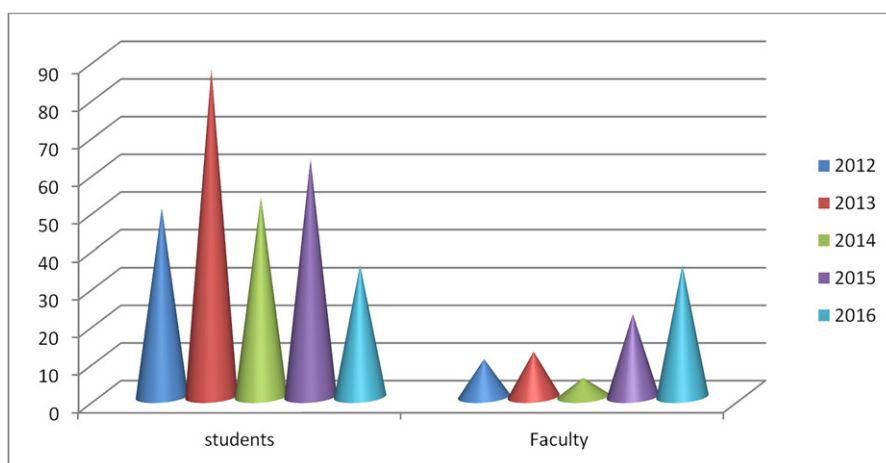


Figure 3. Showing request of students and faculty.

Table 4. Discipline wise requests for documents.

Subject or discipline wise distribution of document request					
Departments	2012	2013	2014	2015	2016
Plant Pathology	03 5.00	10 10.10	08 13.79	02 2.35	02 2.86
Veterinary Science	07 11.67	08 8.08	04 6.90	43 50.58	36 51.43
Horticulture/ Vegetable Sc.	15 25.00	25 25.25	19 32.76	05 5.88	06 8.57
Agronomy	04 6.67	09 9.09	06 10.35	11 12.94	10 14.28
Environmental Science	00 0.00	03 3.03	01 1.72	01 1.18	01 1.43
Entomology	03 5.00	04 4.04	03 5.17	03 3.53	01 1.43
Animal Nutrition	01 1.66	05 5.05	02 3.45	07 8.23	03 4.28
Biological Science / Micro biology/ Life sciences /Physiology	05 8.33	06 6.06	07 12.07	03 3.53	02 2.86
Genetics &Plant breeding	07 11.67	06 6.06	02 3.45	04 4.71	07 10.00
Food Technology	10 16.67	07 7.07	01 1.72	04 4.71	01 1.43
Soil Sciences	03 5.00	02 2.02	03 5.17	01 1.18	00 0.00
Seed Sc.& Technology	01 1.66	04 4.04	02 3.45	00 0.00	01 1.43
Agricultural Engineering	01 1.66	02 2.02	00 0.00	00 0.00	00 0.00
Molecular Bio Genetic Eng.	00 0.00	08 8.08	00 0.00	01 1.18	00 0.00
Total	60	99	58	85	70
Percentage	99.99%	99.99%	100%	100%	100%

having research information of their interest. Figure 4 depicts a pictorial chart of discipline-wise document request made by patrons.

Table 5 presents the Research Institutes and Universities where from most requests were made by the research scholars and faculty members of G B Pant University of Agriculture and Technology. Perusing year-wise requests it is noted that both in 2012 and 2013 Indian Agricultural Research Institute (IARI) New Delhi and CCS Haryana Agriculture University were popular destinations for requesting research articles, more than 20 article requests were made from IARI under DDR services. CCS Haryana Agriculture University (CCSHAU) received maximum request by researchers in 2015 and 2016. The popularity of these institutes owes to the fact that IARI is one of the largest agrobiological libraries in South East

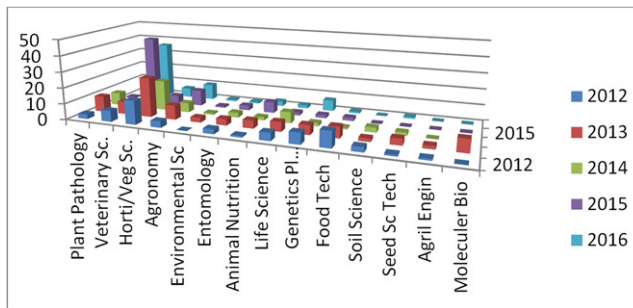


Figure 4. Discipline wise request.

Table 5. Popular destinations for interlibrary loan and document requests.

SL No.	ICAR Research Institutions and Universities	2012	2013	2014	2015	2016
1	Anand Agriculture University, Gujarat	00 0.00	06 6.06	02 3.45	10 11.76	10 14.28
2	CCS Haryana Agricultural University	07 11.66	19 19.19	11 18.96	46 54.12	36 51.43
3	Central Institute of Fisheries	00 0.00	04 4.04	00 0.00	00 0.00	00 0.00
4	Central Aviation Research Institute	00 0.00	00 0.00	00 0.00	01 1.18	00 0.00
6	Central Cotton Research Institute	00 0.00	02 2.02	00 0.00	02 2.35	00 0.00
7	Central Tobacco Research Institute	00 0.00	00 0.00	00 0.00	00 0.00	00 0.00
8	Central Tuber Crop Research Institute	00 0.00	05 5.05	06 10.34	06 7.06	04 5.71
9	Cotton Research Institute	00 0.00	01 1.01	02 3.45	00 0.00	01 1.43
10	Directorate of Cashew Research Institute	00 0.00	00 0.00	01 1.73	01 1.18	00 0.00
11	Directorate of oil Seed Research Institute	02 3.33	03 3.03	02 3.45	00 0.00	00 0.00
12	Directorate of Rice Research Institute	02 3.33	04 4.04	02 3.45	00 0.00	08 11.43
13	Indian Statistical Agril. Research Institute	03 5.00	04 4.04	00 0.00	00 0.00	00 0.00
14	Indian Agricultural Research Institute	24 40.00	22 22.22	09 15.51	01 1.18	00 0.00
15	Indian Grassland Research Institute	02 3.33	02 2.02	02 3.45	00 0.00	01 1.43
16	Indian Institute of Pulse Research	03 5.00	03 3.03	00 0.00	00 0.00	00 0.00
17	Indian Veterinary Research Institute	06 10.0	08 8.08	03 5.17	10 11.76	08 11.43
18	Jaishankar Telangana Agriculture University	00 0.00	03 3.03	00 0.00	02 2.35	01 1.43
19	Maharashtra Animal and Fisheries	00 0.00	01 1.01	01 1.73	00 0.00	00 0.00
20	Navsari Agricultural University	00 0.00	02 2.02	04 6.89	00 0.00	00 0.00
21	NG Ranga Agriculture University	10 16.66	03 3.03	12 20.69	00 0.00	00 0.00
22	Indira Gandhi Agricultural University, Raipur	00 0.00	03 3.03	00 0.00	00 0.00	00 0.00
23	Tamil Naidu Veterinary Animal Sciences	03 5.00	02 2.02	00 0.00	00 0.00	00 0.00
24	Vasant Rao Marathwada Agril University	00 0.00	01 1.01	00 0.00	02 2.35	00 0.00
	Y S Parmer Univ. of Horticulture &Forestry	00 0.00	02 2.02	01 1.73	04 4.71	01 1.43
	Total percentage	60 100 %	99 100%	58 100%	85 100%	70 100%

Asia housing more than 3.75 lakh publications (Indian Agricultural Research Institute, 2017). It is acknowledged as the defacto National Agricultural Library of India due to its fortune collection. CCS Haryana Agricultural University (CCSHAU, 2013) is located in Haryana state of north India not very far away from both IARI, New Delhi, and G B Pant University of Agriculture, in Uttarakhand. It is also one of the biggest agricultural university in Asia and is quite popular among the agricultural community due to its rich collection of documents. CCSHAU library houses over 3.60 volumes of publications and both universities are among the top 10 ranked universities in the country (Top Agricultural Universities in India, 2016). Interestingly few documents were requested from universities located in southern parts of India and other states due to the fact

that the patrons of G B Pant University of Agriculture found most articles of their interest from these two institutions and only those information that was not available from these institutions were requested from other agricultural universities across the country.

Recommendations

Consequent upon the finding and analyses of this study, the following recommendations are made: that Interlibrary loan and DDR services through online platform like CeRA has been a new experience for the academic community in agricultural sciences and it is noted that a number of patrons are not aware of such services. The study reveals that use of this platform for document request is less popular among the faculty members, while research information is highly valued in the university many patrons are unable to deal effectively with it in their everyday work and are likely to be comfortable with print or easily available e-resources.

The faculty members are likely to have problems with information overload, insufficient time, information anxiety, or even inadequate technological skills to exploit information sources on their own, therefore, requires guidance and greater assistance from library professionals. The librarians need to be proactive and engage themselves to provide greater services to the teaching and research community of the university, to manage challenges in locating and exploiting e-resources and using online platforms for information/e-document request from other Institutions .

Is there a need for information literacy in the workplace? (O'Sullivan, 2001), certainly 'yes' an information literate workforce can locate, evaluate, and effectively use information is key to the success of many organizations (Lloyd, 2003), universities play an important role in teaching research and creating knowledge hence, success of academics greatly depends on exploitation of latest information or new knowledge. Better management of learning resources and dissemination by library professionals is essential to the productivity and performance of agricultural universities.

One of the objectives for establishing the consortium for e-resources in agriculture was to create and popularize e-access culture among the scientist and teachers in the agricultural research institutes and universities (CeRA, 2012), the present study reveals that DDR services are not so popular among faculty in Pantvarsity, therefore librarians' role in teaching skills to exploit these resources is inevitable. Sources that lie outside the domain of the library embedded in platforms can easily be found and accessed by the academic community through library guidance. It is also noted that only two universities in north India were mostly contacted by the patrons for document request, the southern universities were just touched, this indicates the diversity of locations of the universities in the country and

the resources they have are not adequately utilized basically for which the platform was created for resource sharing, it needs to be brought to the attention of the patrons and how easily they can use the platform to acquire information all at one place.

Information literacy trainings need to be adequately addressed by the library professionals not only for the students but also for faculty and researchers so that they are better informed, skilled to locate, organize and evaluate information on their own for best decisions, to create new knowledge, provide information to others, and also guide students in exploiting research resources under online and digital environment. It is also to be noted that growth and importance of e-resources coupled with the need for staff and students both to be information literate is vital to the success of universities and academic community.

Conclusions

The CeRA online platform, provides “One Stop” access to consortium e-journals and journals subscribed by individual libraries spread across the country for resource sharing through Interlibrary Loan is a wonderful service. DDR services has been integrated into the consortium for the best use of journals subscribed by individual libraries (i.e. often physically confined to libraries premises) accessible to patrons of all consortium members across the country. This is not only an interesting way of resource sharing and document delivery but it is also a worthy virtual experience for the researchers and academic community.

This study reports interesting findings of the use of DDR services by patrons of G B Pant University of Agriculture and Technology. Discipline wise, it is noted that most requests for documents were made by researchers from horticulture and vegetable sciences, closely followed by patrons from veterinary and agronomy. Highest number of requests were made in the years 2013 and 2015, while request were made throughout the year, maximum requests were made in months of February, March, May, and September. The study also reveals that patrons from G.B Pant University were more comfortable in requesting documents from Agricultural Institutions in North India. Indian Agricultural Research Institute (IARI) New Delhi and CCS Haryana Agricultural University were the most popular destinations for DDR. Students community were much more active and involved in using CeRA platform for requesting documents than the faculty from the university. Interlibrary loan and document delivery through online platform virtually is a new experience for the Indian agricultural community and continues to grow. In order to popularize the services among the academic community, the library professionals need to work

further towards creating more awareness and educating the patrons through information literacy . It is likely that a number of students and faculty are not aware of the platform and the DDR services. With successful and sustainable functioning of the CeRA platform offering electronic interlibrary loan services, resource sharing and document delivery services, will continue to serve the Indian agricultural community, all that is required, is to create awareness for best use of the platform . Nevertheless we can expect exciting times ahead in use of virtual interlibrary loan and document delivery continually, maturing and evolving.

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