

Use of Document Delivery Services through J-Gate@UGC-INFONET - A Case Study of IGM Library, University of Hyderabad

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Abstract The University Library & Information Centers are playing a prominent role in procurement, organization, preservation of resources and providing access to the research scholars. These centers are the basic source of information for present and future generations. This paper explains the importance of Inter Librarian Loan facility in University Libraries and also discusses about J-Gate@UGC-Infonet (<http://jgateplus.com>). Finally it analysis the document supply service of IGM Library, University of Hyderabad.

Keywords *Document Delivery Services; University Libraries-Resource Sharing; J-gate; JCCC for University Libraries*

1. Introduction

Libraries and information centres are the primary source of information or documents to students, research scholars and faculty in universities. Libraries are the basic support for teaching, research and advanced studies in universities. Though, libraries strive to provide all the required resources to their clientele, but unable to meet their complete requirements in spite of spending maximum of their budgets. Moreover, cost escalations of resources and shrinking library budgets and ever increasing users demands for resources have posing constant challenges to librarians. Further no library is self sufficient to meet the entire research requirements, but relies on sharing the resources among themselves. Resource sharing also helps libraries to meet the gaps in individual library collection and when they cannot afford to purchase resources for their users. In addition to libraries mutually sharing resources, many library resource sharing networks and consortia are formed in this electronic and digital era and helping the member libraries to share their resources and increase the research output of the organization.

The term interlibrary loan service referred as a library to library transaction. It is considered essential service of the library because the other libraries do not give books directly to patrons of other different libraries. In olden days Inter Library Loan (ILL) service has been provided by libraries to obtain materials such as books, photocopies of journal articles and other materials from other libraries. The books will be returned to the lending library after taking photocopies of the required chapters. Libraries were not usually collecting any charges from their users or libraries for these services.

Library and Information services are being transformed by technology and they have to adapt to these changes to meet their users' changing needs and growing expectations. The implementations of ICT in the libraries have demanded new forms of library services to get more user satisfaction. Digital library service has evolved after the implementation of ICT in the library and information centers. Technological advancements in information industry and libraries also transformed the scenario of even document delivery services as the libraries are unable to meet the requirement of their library users with their limited resources.

All web-enabled libraries are in an ideal position to provide ILL services to their clientele through modern information communication technology (ICT). ILL services can be rendered more effectively in these days. Scanned articles now can be sent through electronic mail over the Internet. Patrons can also initiate a request that will go immediately to the library that owns the item, effectively bypassing the interlibrary loan unit of the home library. These changes have increased the speed of process of making request/delivery of article and its receipt by the user; thereby productivity for library staff is increased and ultimately speedy service to the patron.

2. Review of Literature

Brown (1997) described how maximum resources can be successfully accessed during budget constraints. Moreover, he addressed future concerns of university libraries in the electronic environment and recommended the adoption of resource-sharing, efficient delivery methods and clarification of legal issue. Conrolly (1999) was of the opinion that web based ILL Systems are replacing paper based manual systems.

Srivastva, Mehandra and Kanauja, Laleta (2004) conducted a survey for investigating the present situation of library automation, CD-ROM database services, internet and on-line facilities, reprographic services in Agricultural University libraries in India. This study also emphasized the traditional documentation and information services namely bibliographic service, current awareness service, abstracting and indexing and newspaper clipping services in agricultural Universities in India. Findings indicated that, 100% libraries are providing Current Awareness Service and bibliographic services. 40% libraries providing indexing and abstracting services. Almost all the libraries providing reprographic services and 73.33% providing microfilm reading facility and they suggested that all the libraries should provide better information services electronically for meeting the requirement of the users.

Desale, Sanjay, Londhe, N.L. and Patil S.K. (2009), conducted a study on JCCC@UGCINFONET and the document supply service at the University of Pune. They faced problems while using the JCCC@UGCINFONET interface and the administrative interface in providing ILL service. They suggested the JCCC software should be evaluated from both the users and administrative point-of-view.

Sangeeta Kaul (2010), while conducted a survey of DELNET libraries for assessing the usage of DELNET services found that Photocopying of journal articles and supply is the most popular service

of DELNET. The study has found that 86% member libraries are benefited from the union catalogue and above 90% libraries are satisfied about the ILL/DD service of the DELNET.

In view of the importance of document delivery services to university users i.e. faculty, research scholars and students, it is aimed to overview the document delivery services organized by INFLIBNET Centre through their UGC Infonet Digital Library consortium, especially with special reference to the currently operated online service J-Gate@UGC-INFONET for university libraries and analyze its usage in University of Hyderabad by the Library quantitatively. The required data was collected from the library records, literature published in journals and usage statistics supplied by the UGC Infonet Digital Library Consortium

3. INFLIBNET Centre - Document Delivery Services

The Information and Library Network (INFLIBNET) Centre is an autonomous Inter-University Centre (IUC) of the University Grants Commission (UGC). It has involved in creating the infrastructure for the sharing of library and information resources and services among academic and research institutions in India. INFLIBNET works collaboratively with Indian university libraries to shape the future of academic libraries in the evolving information environment (INFLIBNET, 2008).

INFLIBNET has started a document supply service based upon the collection of subscribed journals within the UGC INFONET digital library consortium. Initially the document delivery service commenced with a group of 6 university libraries to host their resources to supply to all university users through their respective libraries. The service was upgraded to JCCC@UGC-Infonet increasing the resources from 16 host libraries, which is currently operating with 22 university libraries. These 22 libraries are designated as document supply centres to provide resources or services to users affiliated to 149 universities covered by the UGC through JCCC@UGC-Infonet. These document supply libraries provide their subscribed journals consisting of more than 2,000 titles, which are not available through the consortium. These journal articles are made available through the document delivery portal which can be accessed by the users of all the member universities of consortium. The Inflibnet DDS centres (university libraries) are listed as under.

1. Annamalai University
2. Assam University
3. Banaras Hindu University
4. Banasthali Vidyapith
5. Bangalore University
6. University of Calcutta
7. University of Delhi
8. University of Hyderabad
9. Jadavpur University
10. Jawaharlal Nehru University, New Delhi
11. Kurukshetra University
12. University of Madras
13. MS University, Baroda
14. Nagpur University
15. North Eastern Hill University

16. Panjab University
17. Pondicherry University
18. University of Pune
19. Punjabi University
20. 20 University of Rajasthan
21. Pandit Ravishankar Shukla University
22. Tata Institute of Social Sciences

J-Gate Custom Content for Consortium (JCCC) is a virtual library of journal literature created as a customized e-journals access gateway and database solution. It acts as a one point access to 7900+ journals subscribed currently under UGC INFONET Digital library consortium as well as university libraries designated as Inter Library Loan (ILL) Centers besides open access journals. INFLIBNET has identified 22 potential universities as ILL Centers in the country to fulfill ILL request from the users affiliated to universities covered under UGC- INFONET Digital Library Consortium. JCCC has facility to trigger e-mail request for article to Inter Library Loan Centers as well as to INFLIBNET Centre.

The INFLIBNET Centre has further upgraded the document delivery service portal from JCCC to J-gate with additional features which are useful to researchers. The universities are provided with a link to the Document Delivery Service Portal, J-Gate@UGC INFONET (<http://igateplus.com>) and also the search interface for directly using from library website to request research articles from other universities. Users from these universities can send requests that are not available in their own library, directly via the internet for articles found in J-gate portal.

4. J-Gate@UGC INFONET: The Journals Gateway

J-Gate is an electronic gateway to global e-journal literature, including good number of open access journals. It was launched in 2001 by Informatics India Limited, Bangalore, India. J-Gate also supports the online subscription of journals, electronic document delivery, archiving and other related services. J-Gate@UGC-INFONET (<http://igateplus.com>) provides articles from the journals not subscribed to by the UGC-INFONET Digital Library Consortium by including the exclusive journals subscribed by 22 (university libraries) designated as document supply centres by INFLIBNET. These identified document supply centres by INFLIBNET are responsible for supplying journal articles to all other universities.

The J-gate functions as a common interface for all the publishers' content subscribed or even not subscribed by the UGC-INFONET Digital Library Consortium and the journals (print and e-journals) subscribed by 22 document supply centres. Thus provides a list of hyper linked articles on users search so that a user can select the article and access/ download those articles which were already licensed (through subscription/consortium) to the home university. The journal articles that are not accessible to a searcher from home university, the interface facilitates semi-automatic generation of a document supply request directing users to the INFLIBNET Centre or to one of the document supply centres as the case may be. J-gate collects the journal subscription information from all the document delivery centres and also the articles published in open access journals to list them in their portal, so that they will be visible to all university users when they search for journal articles.

The general features and search functionalities as given by J-gate plus (source: <http://igateplus.com>.) are detailed below.

A. General Features

- J-Gate is an e-journal portal presently hosts content from 44,579 e-journals of 12,191 publishers, providing access to 6,250 online-only journals, which are not available in print.
- Captures and indexes articles from more than 22,847 open-access e-journals and maintaining links over 6,625,640 open-access articles.
- Browse TOC (table of contents) uniformly to all the journal titles browsable alphabetically by Journal title; publisher-wise and subject-wise.
- Basic bibliographic data is provided with abstracts (wherever available).
- Author address and e-mail is provided wherever available.
- Provides links to full-text articles (open-access, subscription and also unsubscribed).
- Link to Union List for finding availability.
- Daily updating.
- 24/7 availability of access.
- High-speed in-house Internet infrastructure.
- Content capturing and conversion system with high automation ensures high quality content aggregation.
- In-house software development team.
- Safe and reliable high-capacity storage system for content storage.

B. Search Functionalities

The J-gate home page gives various search options such as quick search, advanced search and browse journals for the user's convenience. The subscriber can choose to search by author, title, authors' address/institution, keywords, etc. Each of these options provides distinct features. Quick search allows users to search for articles using Boolean operators such as AND, OR and NOT. (Sanjay K. Desale, Londhe, N.L. and Suresh Patil).

C. DDS Process

Through J-gate portal photocopies of journal articles can be requested by the faculty and research scholars from any member university directly without depending on library at free of cost. The DDS process is illustrated vide the following screenshots.

However, the respective university libraries will be coordinating these operations, users' requests or complaints and usage within the organization and also with consortium regarding the development activities of DDS. Consortium conducts orientation or awareness programs for the benefit of university users with the help of providers, while conducting meetings with library administrators of DDS.

Authorized users (within recognized IP range/environment/campus) will be able to put their query through quick, advanced search interface or by browsing through journals list, selecting volume/number, table of content and finally the article by its location or locations. Further, users will be able register for their favourite journals and get their alerts notified through registered email.



Figure 1: Screenshot 1: JCCC@UGC- INFONET Search Interface

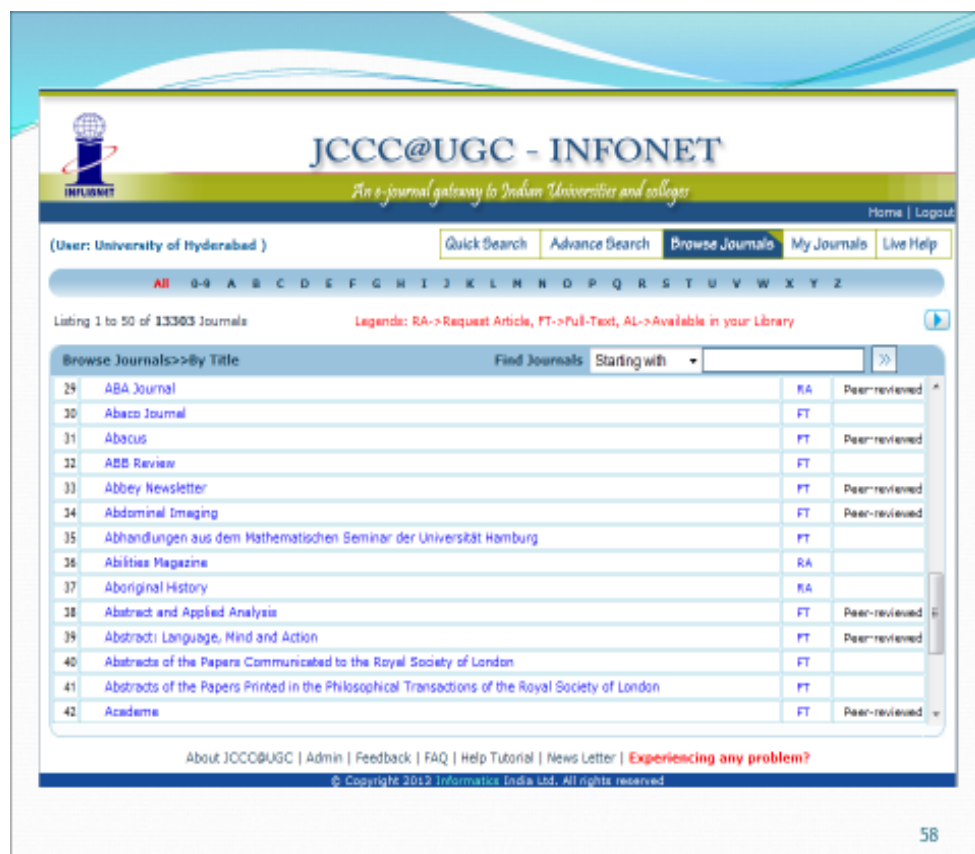


Figure 2: Screenshot 2: Screenshot of Browse Journals Option (<http://jgateplus.com>)

The screenshot displays the IJALIS website interface. On the left, a list of articles is shown, each with its title, author, keywords, and a 'Request the Article' link. On the right, a 'Document Delivery Request' form is open, allowing users to request articles not accessible to them. The form includes fields for 'From', 'To', 'CC', 'Sub', 'Title', 'Authors', 'Journal', 'Vol', 'Iss', 'Year', 'Page', 'Name', 'Department', 'Organisation', 'Phone', and 'Comments'. A 'Send' button is visible at the bottom of the form.

Articles List:

- 1. We have a New Name!**
Authors : Traci Waters
Keywords : Marketing Business; Corporate Representatives; Canada; B
[Request the Article](#)
- 2. The Power of Sport**
Authors : Lynda Elmy
Keywords : power; Sports; Press Conferences; competition; Games; a
[Request the Article](#)
- 3. Social Impairment in Children with Autism Spectrum Disorder**
Authors : Natalia Polakova ; Alison Polakova
Keywords : Children With Autism; Social Impairment; social animals
[Request the Article](#)
- 4. Preparing Job Seekers for Success**
Authors : Renee Slade
Keywords : Job Seekers; Greater Toronto Area; Employment Program
[Request the Article](#)
- 5. Moving Policy to Action**
Authors : Deanna Grotzinger
Keywords : Multiple Sclerosis; Policy Changes; Policy Papers; Canada
[Request the Article](#)
- 6. Disabling Poverty and Enabling Citizenship**
Keywords : Poverty; Citizenship; Disability Communities
[Request the Article](#)
- 7. Checks and Balances**
Authors : Afrozah Edwards
[Not subscribed by your institution. Click to send DDR](#)

Document Delivery Request Form:

From: Enter your email ID

To: University of Calicut

CC: University of Hyderabad; Information and Library Network Ce

Sub: Request for Photocopy

Title: **Disabling Poverty and Enabling Citizenship**

Authors: Abilities Magazine

Journal: Vol Iss 1 Year 2008 Page

Name:

Department:

Organisation: UNIVERSITY OF HYDERABAD

Phone:

Comments:

Buttons:

Figure 3: Screenshot of Articles listed for Users Selection
(Source: <http://jgateplus.com>)

The document supply requests will be generated to designated centres and INFLIBNET centre for the journal articles which are not accessible to their users in their own university and also they will be able to track request history and the fulfilment status of requests.

From

(* Shows mandatory fields)

Name *

E-mail *

College/Univ/Institution *

Department *

Type of Profile

Roll No / Admin No *

Mobile/ Phone no

If you are from Regional station/Institute/College

City

Pin

Message

To

DDR Request To *

Article Delivery To *

Cc

☐ ILL - User Declaration

I need this article for my personal study and research only. I agree not to copy, modify, loan, sell, distribute or create derivative works based on the content in this article either in whole or part. Wherever I use any part of the content of this article, I will acknowledge by citing the article.

DISCLAIMER

Figure 4: Screenshot of Locations Listed Against the Selected Article for Users Selection of Location
 (Source: <http://jgateplus.com>)

5. IGM Library - Usage of Document Delivery Services

The University of Hyderabad Library is one of the leading university libraries in India established in the inception in 1975 and named as Indira Gandhi Memorial Library in 1988. The university library has been actively involving in interlibrary loan activities since the inception and later continued this service as despatch of photocopy of articles to other university libraries against their requests. The Indira Gandhi Memorial Library was the first university library in India to take advantage of ICT developments to provide information and online services to their users at right time. The online services being provided by the Library such as- Online Public Access Catalogue, memberships in resource sharing networks/consortia, subscription to e-journal databases, hosting collection in document delivery services and maintaining own library websites etc.

The library has been maintaining large collection of print, digital and electronic documents. The library has been subscribing to electronic resources since the year 1998 apart from licensing to online journals / web editions to print journals and full text journals databases since the year 2001. The library is additionally getting access to full text, abstracting databases and also the other portal services from UGC Infonet Digital Library Consortium. Further the library is providing access to back volumes of journals from 15 scholarly publishers from the first volume on perpetual access. At present, the library is subscribing to 47 journal databases covering almost 30,000 e-journals. The library is also providing access to around 5000 e'books/serial publications.

UGC INFLIBNET Centre has selected IGM Library as one of the 6 host libraries to provide Document Delivery services since the inception of the consortium. Ever since the consortium migrated to JCCC online platform for facilitating DDS with 16 host universities, the IGM library continued to be in important position in delivering these services.

Currently the number of hosting universities is increased to 22 under J-Gate@UGC-INFONET programme. Under this program photocopies of journal articles will be sent to the faculty and research scholars of other universities and also to the home university users at free of cost on their request.

As per the usage statistics provided by the UGC Infonet Digital Library Consortium, the document delivery service / activity pertaining to the university with JCCC @ UGC Infonet has been increasing from 9144 (2008) to 18914 (2010) as shown in the Figure 4 and then gradually decreased up to 11249 by 2012 (Suseela, 2013).

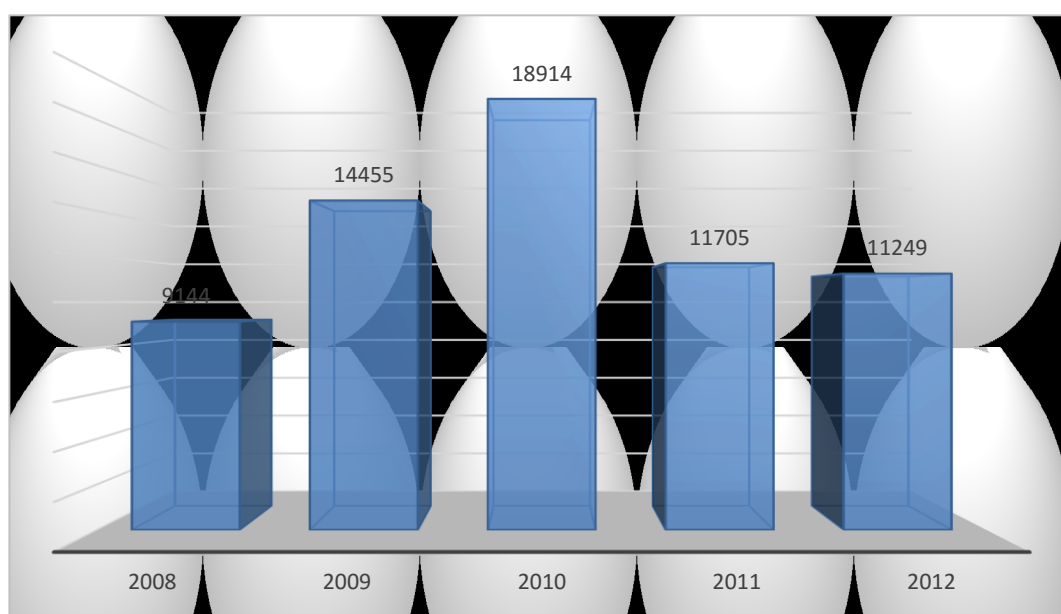


Figure 4: UOH - JCCC@UGC Infonet Activity 2008 – 2012

(Source: Suseela, 2013)

The latest statistics indicates further decrease of the activity by 2119 in the year 2014. The decrease in document delivery activity can be attributed to the decrease of print/online journal subscriptions by individual libraries, non-availability of required journals/articles to users through J-gate portal and the frequent changes in service portal and also the interface. The budget is decreasing with the increase in cost of the resources.

DDS-Article-wise

The article delivery service rendered by the IGM Library, University of Hyderabad for the current year is presented in Table 1. The data shows that, the university library has supplied 386 articles to the different Research Scholars requesting from all over Indian Universities, under INFLIBNET, J-Gateplus@UGC-Infonet Document Delivery Service portal for a period of 10 months i.e. from January, 2015 to October, 2015.

Table 1: Number of Documents Supplied to Different Universities in India Under J-Gate@UGC-INFONET Portal (January to October, 2015)

No. of Articles Supplied (Range)	Number of Universities Requested Articles
01 to 10	64
11 to 20	4
21 to 30	2
31 to 40	1
41 to 50	1
51 to 60	1
	73

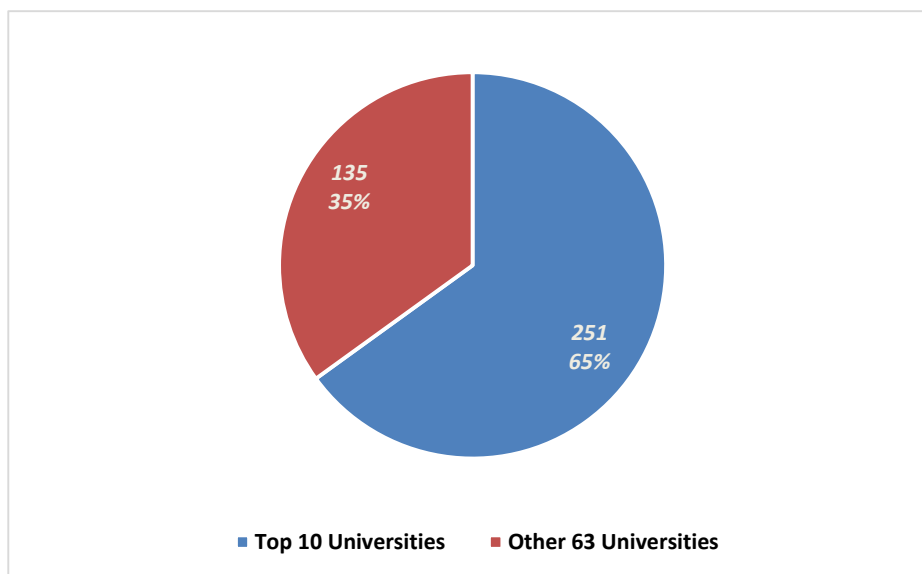
From the above Table it is observed that, during 10 months period, the IGM Library supplied 1 to 10 copies of articles to 64 Universities, 11 to 20 articles were supplied to 4 Universities, 21 to 30 articles to 2 Universities, 31 to 40 articles were supplied to 1 University, 41 to 50 articles were supplied to 1 University and 51 to 60 articles were supplied to a single university under INFLIBNET, J-gate@UGC-INFONET Document Delivery Service.

DDS - University-wise

Table 2: Number of Articles Supplied to top 10 Universities by the IGM Library Under J-gate@UGC-INFONET

Sl. No.	Name of the University	Number of Article Supplied
1	Guru Jambheshwar University, Hisar	52
2	Punjab University, Chandigarh	46
3	Bharathiar University, Tamil Nadu	31
4	Tata Institute of Social Sciences, Mumbai	26
5	Kuvempu University, Karnataka	23
6	University of Kerala, Thiruvananthapuram	19
7	Annamalai University, Tamil Nadu	19
8	Acharya Nagarjuna University, Guntur, Andhra Pradesh	14
9	Central University of Kerala	11
10	University of Calicut	10
11	Other Universities (63)	135 articles (less than 10 to each university)

The data about counts of articles sent to top 10 universities indicate that approximately 65% articles are sent to them, whereas 135 (around 35%) articles were sent to 63 universities.



During the 10 months period 73 University Research Scholars were requested through INFLIBNET, J-Gate@UGC-INFONET (<http://jgateplus.com>), Document Delivery Service. Out of 73 Universities, the highest numbers of articles i.e. 52 articles, were supplied to Guru Jambheshwar University, Hisar followed by 46 articles were supplied to Punjab University, Chandigarh, 31 articles were supplied to Bharathiar University, Tamil Nadu, 26 articles were supplied to Tata Institute of Social Sciences, Mumbai, 23 articles were supplied to Kuvempu University, Karnataka, 19 articles were supplied to the two universities i.e. University of Kerala, Thiruvananthapuram and Annamalai University, Tamil Nadu, 14 articles were supplied to Acharya Nagarjuna University, Guntur, Andhra Pradesh, 11 articles were supplied to Central University of Kerala and 10 articles were sent to the University of Calicut, Kerala State, whereas remaining 63 other universities received less than 10 articles as per their request through J-gate portal.

6. Discussion

Generally the Universities are not in a position to subscribe all the required resource to their research scholars, hence this DDS is very useful to get their required article from the other university Libraries. Though the service is prevalent since print resources only period, it gained momentum with the online supply of articles, which ultimately results in the increase of research output of Research Scholars and university. University Libraries have been developing their ICT infrastructure, resources and facilities with the Special grants given by UGC Infflibnet.

The usage statistics pertaining to this online service supplied by UGC Infflibnet reflect that the use of document delivery services was increasing in the initial years, but decreasing subsequently. The dependency on document delivery service might be reducing as almost all the universities are able to access innumerable journal resources with back files even since inception volume. Further the exclusive resources subscribed by host universities are coming down year by year, due to cut in budgets and increase in cost. The frequent changes in J-gate portal service and also the interface changes cause confusion and avoidance of using such self-support services.

Further in the current environment of subscribing digital/electronic resources and document delivery restrictions in electronic form, university libraries need to send them in only print form, which is

undoubtedly an added burden especially when staff as well as financial resources are diminishing day by day to undertake additional tasks.

Reciprocate activity of other libraries is another motivating factor for the supply of articles, especially when host libraries are not getting required articles. From the users experience/complaints it is observed that majority of users requests for articles are not getting response and only around 8 articles are received from other university libraries. Moreover the process of searching article in J-gate portal and sending requests for its supply is yet not familiar to majority of users, in spite of conducting regular orientation sessions by the library.

7. Conclusion

INFLIBNET Center, Ahmedabad has recently conducted a meeting to all the 22 university document supply centres at Bangalore. In that meeting the university librarians expressed several problems, which they were facing for sending the article to other university research scholars. Most of the librarians requested to provide finance for purchase of computers, scanners, and manpower and also for the stationary. And the librarians also expressed that due to the lack of finance and manpower they are not able to send the requested article to the research scholars.

The J-Gate@UGC-INFONET document supply can increase the speed of document supply. Once the document is located in the library, the requested article can be scanned and quickly sent to the requester by e-mail.

The Gate@UGC-INFONET is very useful and increases the speed of document supply to all the universities in India. J-gate is a gateway to all the resources of the member libraries and provides easy and quick passing of resources from library to library. The IGM library has provided highest number of articles to other university research scholars through e-mail and by post. It is most important for all the universities to participate in the program and send the required articles to the research scholars to support their research. The J-gate features and search facility should be explained to the users through orientation which the University of Hyderabad regularly conducts in the beginning of the year to reach the facilities to the students. To promote research every university should come forward in DDS since it is give and take service in which all participating university users are benefited.

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