

DELNET - The Functional Resource Sharing Library Network : A Success Story from India

By

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The Genesis of Library Networking in India

- *In India during the late 1980s and 1990s there was a movement to establish city and regional-based library networks by NISSAT (National Information System for Science and Technology), a body under Dept of Scientific and Industrial Research (DSIR), Government of India. It provided some financial assistance for the setting up of these library networks.*
- *This has lead to the mushrooming of various city library networks in India including BONET (Bombay Library Network), CALIBNET (Calcutta Library Network), DELNET (Delhi Library Network which later became Developing Library Network in 2000), PUNENET (Pune Library Network). The University Grants Commission has also developed INFLIBNET (Information and Library Network) in 1991 to network the University Libraries in the country.*
- *Only a few networks were able to work on the self sustainable model and continued to exist after the initial phases of implementation and functioning*

DELNET-Developing Library Network

- *DELNET-Developing Library Network is a major operational resource sharing library network in India connecting more than 1597 libraries in 30 States and UTs in India and seven other countries*
- *DELNET was conceived as a city based library network in Delhi in 1988 and was known as Delhi Library Network, networking the libraries of the Delhi region. It got registered as a society in 1992*
- *It was on 13th September 2000 that the name of DELNET got changed from DELNET-Delhi Library Network to DELNET-Developing Library Network*
- *The main objectives of DELNET is to promote resource sharing among the member-libraries by collecting, storing and disseminating information and by providing networked services to the researchers and scholars to supplement their research activity*

5 Cs - Functional Parameters of DELNET

- **Connectivity**
- **Cost**
- **Computers**
- **Client**
- **Content**

Connectivity

- *The DELNET services are accessible through the World Wide Web by the registered member libraries. The DELNET databases are hosted on Basis Web server and are connected with a 11 mbps RF link offered by National Informatics Centre, Ministry of Communications and Information Technology, Government of India*
- *The network remains functional on 24/7 basis*
- *The survey conducted among the member libraries have shown very encouraging figures regarding the availability of the dedicated links in the libraries. 89.9 percent of the respondents have confirmed the availability of the dedicated Internet facility in their libraries. The University Libraries have the largest availability of the dedicated Internet facility with 95.2 percent affirmed the availability of the dedicated link, followed by 90.7 percent in Institutes, 89.7 percent in Research/Special Libraries and 86.7 percent in the Colleges*
- *The survey results shows that Internet has been able to penetrate well among the organisations in the country and the libraries have the Internet bandwidth availability with them*
- *It is found that in 97.3 percent of the organisations, the faculty has Internet facility at their own desk. It is quite essential to have the direct internet access in order to utilise the library network's resource and services to the fullest*

Cost

- *The cost of membership to the library network and the resources provided through them are important for the sustainability of a library network*
- *DELNET membership charges are quite nominal, it is Rs 7500 (USD 150) per annum for the libraries in India and SAARC nations, the non-SAARC members pays USD 500 per annum. The membership fee is kept same for all Institutional Members whether it is a University, an Institution, an R&D organisation, a specialized library or a school library*
- *The democratic approach, an unbiased one, helps in promoting the resource sharing*
- *It is worth reporting that some of the library networks in India could not grow and sustained themselves due to the exorbitant membership charges rates and different categorization of the members on the basis of their collections, etc*
- *DELNET charges for the actual courier charges for sending the books on Interlibrary loan and the member-institutions and their researchers finds it an affordable one. In a developing country like India, Cost of getting the desired material plays a crucial role. Herein, the researchers and scholars for higher research are not being helped financially to a reasonable extent through scholarships, grants, etc. contrary to their counterparts in the Western world*

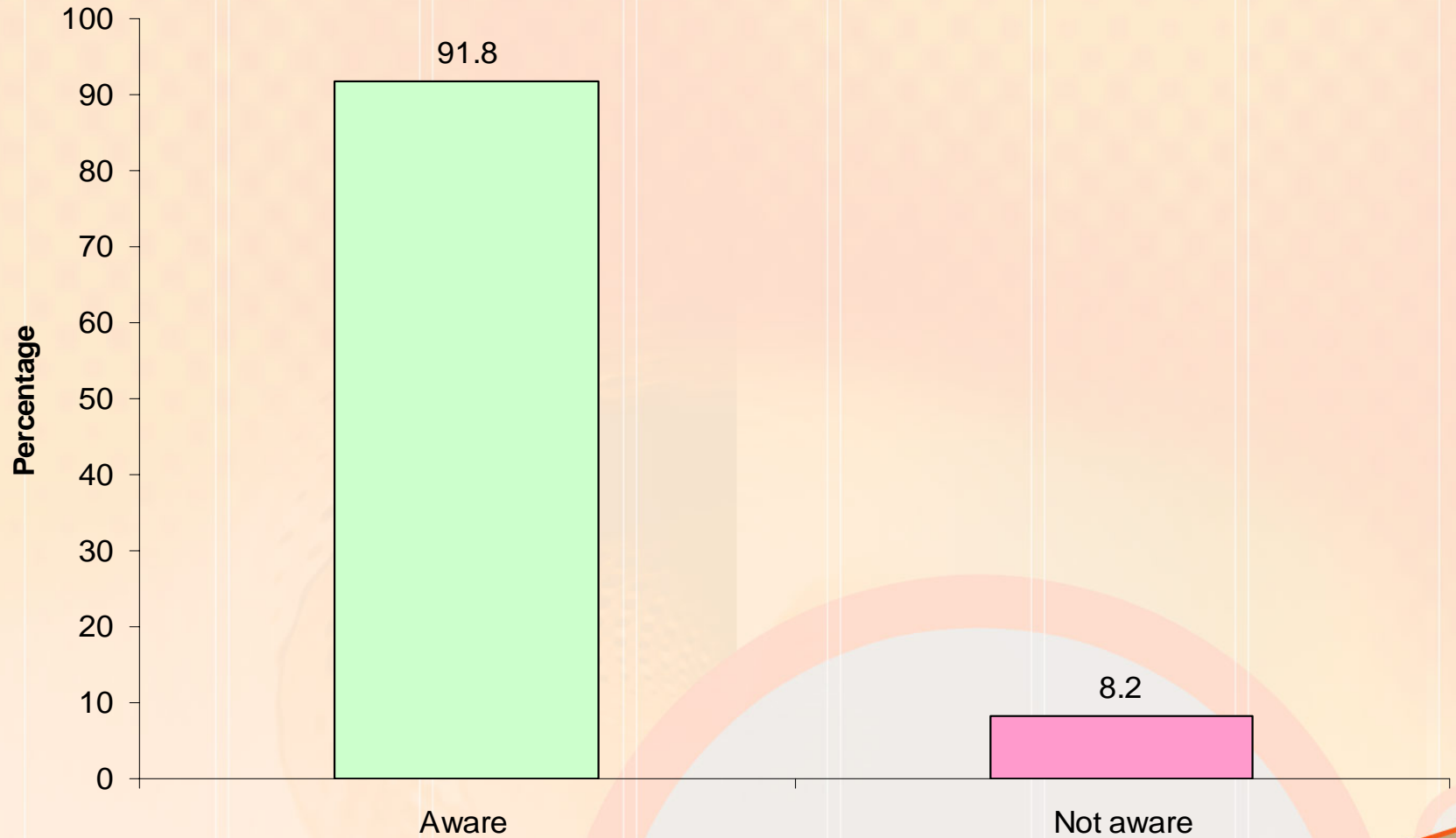
Computers

- *In order to facilitate the optimum use of the library network resources and services, the researchers, scholars and faculty of the member institutions should have adequate availability of the computers*
- *Through the survey conducted, it was found that 43.2 percent of the libraries have upto 10 computers in the library whereas 59.1 percent of the University Libraries have more than 20 computers in the library and only 32.2 percent of the respondents have more than 20 computers in their libraries*
- *It is quite evident that the libraries are not better equipped with the availability of the computers in their libraries though there may be separate computer labs or the computer departments but they are not the part of the libraries.*

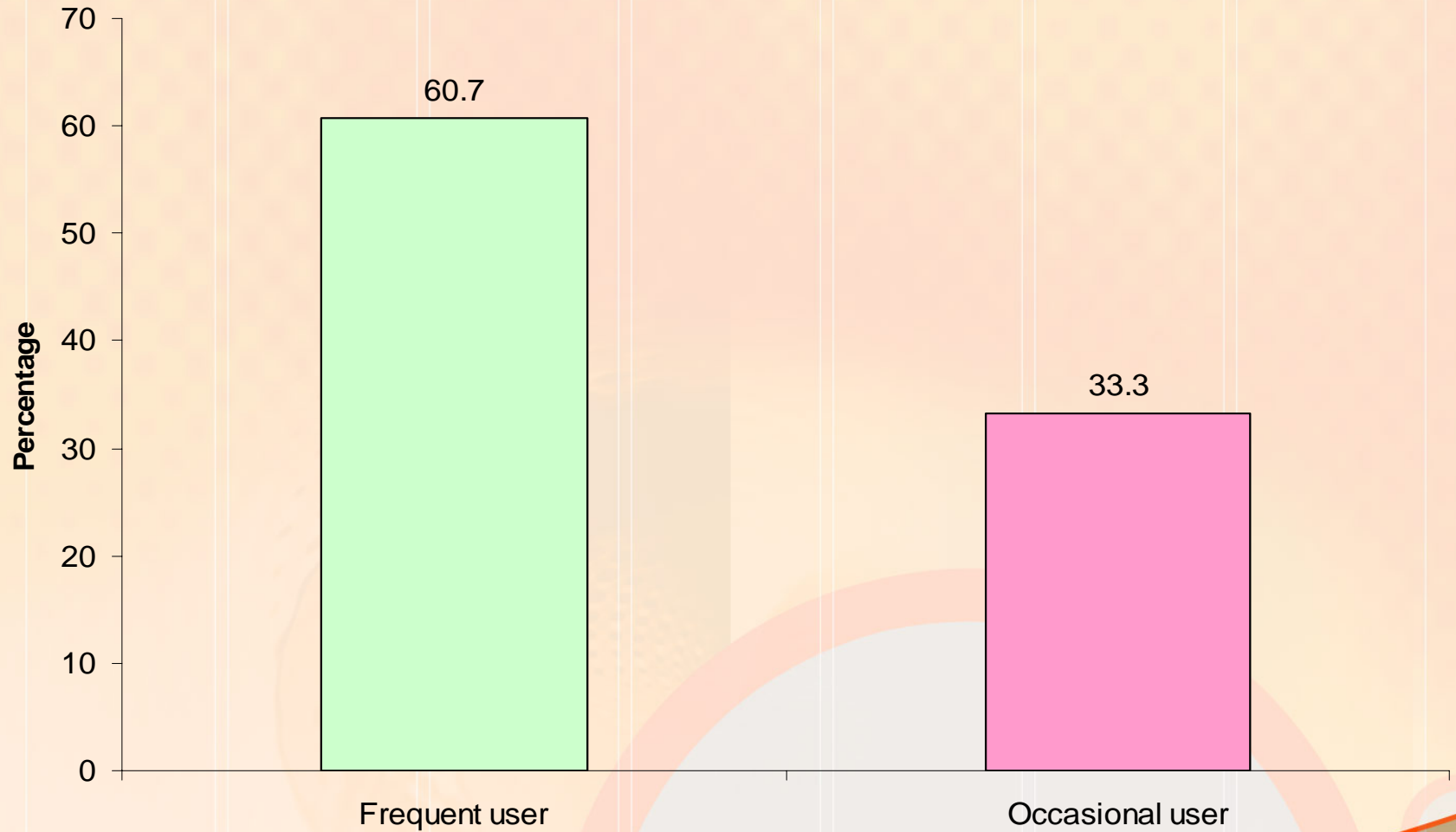
Client (Member-Libraries)

- *The more diverse the library network has the coverage, the more effective would be the resources of such a library network. In DELNET, the participating libraries are from various disciplines and they pool their resources together and share them across the network*
- *I would like to mention the fascinating scenario of resource sharing wherein a technical book required by a S&T Library will be available in a library specialising in Commerce discipline rather than being available in the best technical libraries*
- *The survey results have shown that 91.8 percent of the member-libraries are aware about DELNET services (Table 1) and 60.7 percent are the frequent users of the DELNET services (Table 2)*
- *I would like to mention that DELNET organizes one day orientation programmes in member-institutions located in various parts of the country. This enables in better promotion and spreads awareness about DELNET and helps in popularizing the services among the users, faculty and researchers of the member-libraries*

Awareness about DELNET Services Among The Library Users



How Often Do You Use DELNET Services



Content

- *Content is a major resource of a library network. The greatest concern for a library network is the consolidation of the resources lying scattered across the member-libraries*
- *DELNET is actively engaged in developing the union catalogues and union lists which are the major resource strength for any library network*
- *I would like to mention that in a country like India, the cooperative cataloguing or cooperative collection building is still not in existence. There is a lot much of duplication efforts in the libraries for cataloguing the same titles in different libraries*
- *The various libraries in the country are using various software packages which ranges from the commercial software packages (Libsys, Alice for Windows, Virtua, etc) which may be adhering to international standards to the inhouse developed software packages developed with the backend on SQL, Access, Excel, Oracle, Sybase, etc*
- *DELNET collects the records from the member libraries in the default exported format and the conversion programs are being developed to convert the base records into the standard ISO 2709 format before they are finally being merged in the Union Catalogues*

Content (Contd.)

- *I would like to mention that the information is also collected from the prominent libraries of the country who may be non-members since they can always be approached for getting the desired references*
- *There is an online facility for uploading the machine readable records to DELNET by the member-libraries*
- *The bibliographical databases do not strictly adheres to the international bibliographic formats and the library professionals are not much familiar with MARC 21 cataloguing*

DELNET Databases and their significance

- *Union Catalogue of Books*

- DELNET provides access to more than 8 million bibliographic records of books in English language available with various member libraries located in and outside the country
- The member libraries availing to the Interlibrary Loan facility can place the requests online through the system itself for getting the books on loan
- The Interlibrary Loan is one of the most popular services of DELNET, the resource sharing is done not only between the libraries located in India but also outside India
- Through these services, the users, faculty, researchers and scholars of the member libraries are able to get and refer to the books which are not readily available in their own libraries. At times the books are out of print and are not even available with the book publishers themselves. The Reference books are also lended out though for fewer loaning period
- It is worth mentioning that certain libraries in the country which are reference libraries like Central Reference Library, Delhi University, Indian Institute of Advanced Study, Shimla does lend out books to DELNET. It is only possible due to the mutual cooperation and benefit the libraries generates from the process of resource sharing. It demonstrates a win-win situation

DELNET Databases and their significance

- *Union Catalogue of Books*

- DELNET charges only for the nominal courier for sending the books on loan and it is the responsibility of the borrowing Institution to return back the book at their own cost
- In India wherein the users and also the libraries have the limited resources, through the resource sharing the needs of the information users are fulfilled in most economical ways
- I would like to mention that DELNET also serves its member-libraries outside India

30	Optimization of Second Order Quadratic Equation Using Genetic Algorithm : Guided by Prof. M.A. Gaikwad	Malinky Ghosh	2001-02	mhBDCOE
31	Simple Genetic Algorithm : Foundations and Theory	Michael D. Vose	2004	mhBDCOE
32	Simple Genetic Algorithm Foundations and Theory	Michael D Vose	2004	apVCE
33	The simple genetic algorithm : Foundations and theory	Michael D. Vose	2004	tn\FETCE
34	Project: Character Recognition Using Genetic Algorithm	I Hariharasuthan	2004	tnKEC
35	Simple Genetic Algorithm : Foundations and Theory	Michael D Vose	2004	tnKEC
36	Project: Genetic Algorithm Based Pid Controller	B Jai Shankar	2006	tnKEC
37	Project: Intrusion Detection System for Networks Using Genetic Algorithm	E D Kanmaniruby	2006	tnKEC
38	CD-ROM: Nerval Networks, Fuzzy Logic & Genetic Algorithm	S Rajasekaran and G A Vijayalakshmi Pai	2005	tnKEC
39	Project: Genetic Algorithm Based Combinational Datamining for Diagnostic Pr	V R Vinodhkumar and M Ragavendran and A Saravanakarhi	2006	tnKEC
40	Neural Network Fuzzy Logic and Genetic Algorithm	Rajasekaran S	2005	gjCIT
41	Genetic Algorithm for Optimal Weapon Allocation in Multilayer Defence Scenario	DEFENCE SCIENCE JOURNAL	July 2001	apSVPNPA
42	Practical handbook of genetic algorithm : complex coding systems	edited by Lance D. Chamber	1999	IGNOU
43	Simple genetic algorithm : Foundations and theory	Michael D Vase	2004	jkUK
44	Simple genetic algorithm : foundation and theory	Michael D. Vose	2004	GGSIPIU
45	the simple genetic algorithm	vose michael d.	2004	KNDAIT
46	GENETIC ALGORITHM AND DIRECT SEARCH TOOLBOX USER'S GUIDE	ABRAMSON,MARK.A		tnNEC
47	Simple Genetic Algorithm foundations and theory	Vose Michael D		knJSSATE
48	The simple genetic algorithm : foundations and theory	Vose Michael D.	2004	wbVB



Title: Introduction to **genetic algorithms**
Area of Responsibility: Melanie Mitchell
Subject Descriptors: Genetic algorithms
Date of Publication: 1998
Place and Publisher: New Delhi : Prentice Hall
Location Code: NSIT
Name of the Person: Mitchell, Melanie
ISBN: 81-203-1358-5
Rec Id: 1265915
Accession No: 19431(NSIT)
Class Number: 510.5 MIT(NSIT)
Language or Script of Item: English
Note: Includes index
Physical Description: ix, 209p.



BOOKS - ILL Request Form

Navigation icons: Search, Terms, Summary, Expand, Download, Prior, Top, Up, Down, Bottom, Next, Help.

Submit Request Clear

Title
Introduction to genetic algorithms

Author
Melanie Mitchell

Date of Publication
1998

Place and Publisher
New Delhi : Prentice Hall

Class Number

DELNET Databases and their significance

Union List of Current Journals and E-journals Consortium in India

- The information about the availability of the current journals is of great help for the document delivery services
- DELNET is maintaining an online union list of current journals available in the fields of Science and Technology, Social Sciences and Humanities. This database has more than 25,000 unique titles of current journals available in member as well as the non member libraries of DELNET
- The database is updated continuously by receiving the list of currently subscribed journals and this database contains the information about the journals not only available with the member libraries but also with the major reputed libraries in India which are the non members
- In India a major E-journals consortium was formed in 2000 named “INDEST (Indian National Digital Library in Science and Technology Consortium)” with a financial contribution of Rs 200 million by the Ministry of Human Resource Development (MHRD), Government of India. All India Council for Technical Education (AICTE) has also contributed Rs 37.5 million to this. Thirty Eight centrally funded government institutions including the IITs, NITs and NITs and few others are the core members of INDEST

DELNET Databases and their significance

Union List of Current Journals and E-journals Consortium in India

- Under the consortium, an access to more than 6500 journals from various publishers and aggregators are provided. The UGC Infonet E-journals consortium covers 4453+ ejournals and provides access to nearly 100 Universities of the country
- It has been noticed that private institutions who are not able to afford being the member of the consortium is greatly utilizing to the DELNET Document Delivery Services
- Moreover, at times the members of the Consortium also approaches DELNET for the delivery of the journal articles since the desired journal may not be the one covered under the access or the desired specific issues are not available online. There is lot much of speculation about the extent of utilization of E-journals in the Institutions
- Moreover it has been noticed that if a Institution ceases to be a member of the Consortium because of the non availability of the digital archiving, the users are deprived to browse the issues for which the Institution had paid to the consortia

16	IEEE/ACM Transactions on Networking (Also Published As IEEE/ACM Transactions On Networking)	apAEC;apBEC;apGEC;apMVGRCE;apRECW;apSCRRCE;apSVEC;apVRSEC;asIITG
17	IEEE Transactions On Networking	apGEC;asIITG;DOE;DESIDOC;DLRL;gjCUSCET;IITD;LRDE;mhIITB;mhBARC;NST
18	IEEE Transactions on Circuits and Systems, Part 1: Regular Papers	apAEC;IMD;gjCUSCET;knAITC;rjBITS;SSPL;tnMSECS;upBHU;upKIET;wbJU
19	IEEE IT Professional Magazine	apGEC;apNECN;apRECW;apNBKRIST;apSVEC;asIITG;IITD;knAITC;knGVIT;knN
20	IEEE Intelligent Systems Magazine	apRECW;apNBKRIST;apRVRJCCE;apSCRRCE;apSVEC;apVRSEC;asIITG;IITD;kn
21	IEEE Transactions on Mobile	apGVPCE;apKTTSW;apRVRJCCE;gjCUSCET;ihBITM;knITSc;mhIAT;tnIITM;upKIET

DELNET Databases and their significance

- *Union Catalogue of Journals*

- DELNET has also created a database containing the holdings data of the journals available in the member libraries besides containing the other bibliographical information about the journals. At present the database contains 19,289 records of the journals
- It is a good resource for tracking down the articles from the rare, old issues of the journals dating back to late 19th and early 20th century

DELNET Databases and their significance

- *Database of Journal Articles*

- For journal articles, the concerned users, researchers sends the requests with their bibliography through email and DELNET arranges for the full text delivery

DELNET Databases and their significance

- *Databases of Non-print materials*

- DELNET does maintain the databases of CD-ROM, Video recordings and sound recordings available in the member libraries. The non-print materials can not be loaned out from the libraries, however the video recordings and sound recordings are being taken on loan in special cases though for a lesser period of time
- There are 2,281 records of CDs available with member libraries, 748 sound recordings and more than 5,000 videorecordings listings in the respective databases

DELNET Databases and their significance

- *Database of Thesis and Dissertations*

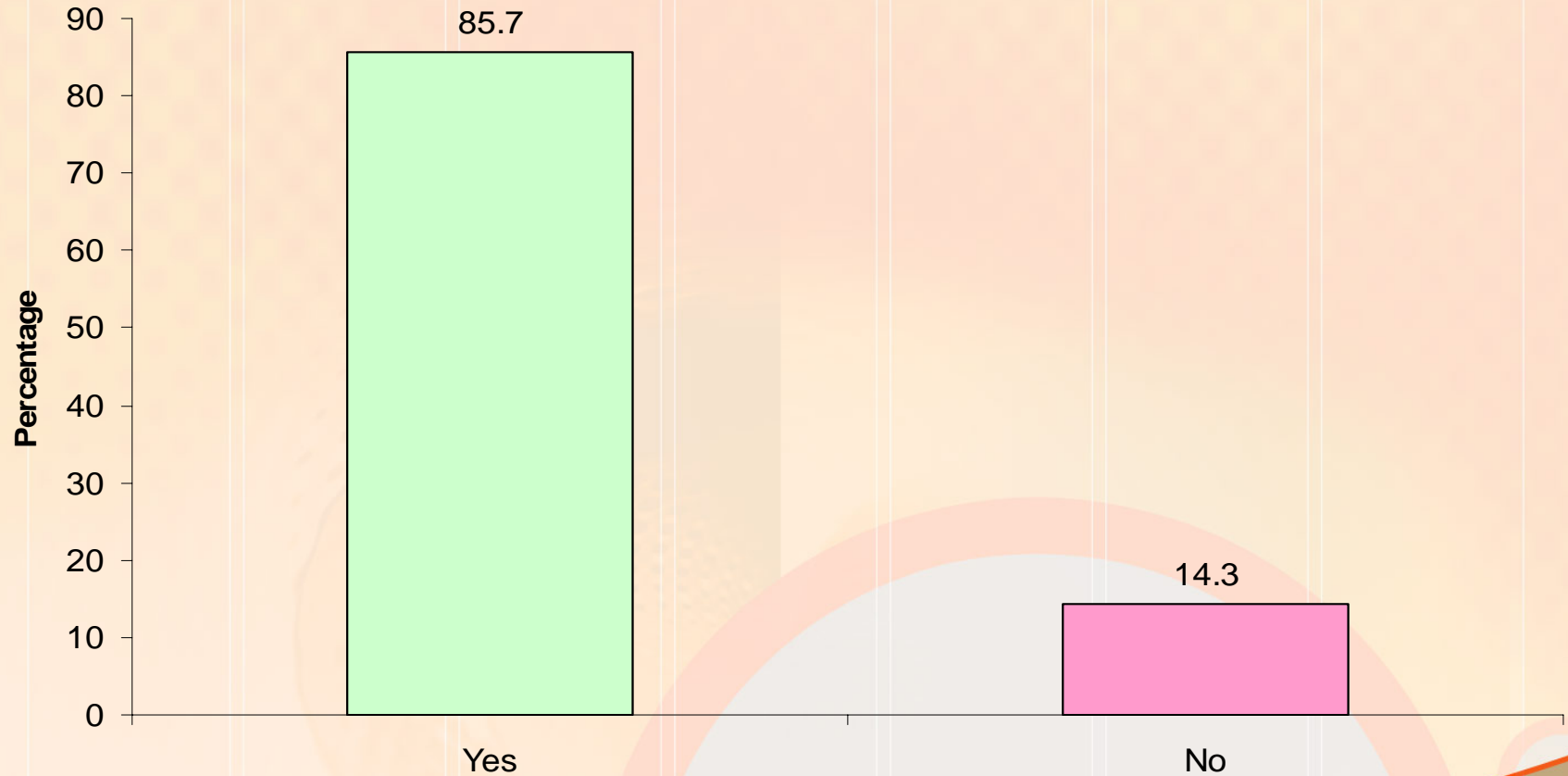
- This database contains around 45000, Thesis and Dissertations submitted to the various Universities and Institutions in India
- This database contains bibliographic information and since thesis and dissertations are the reference materials available in the libraries, the researchers and scholars use this database to know about the works being carried out in their specific fields. There has been some projects in India concerning the digitization of the Thesis and Dissertations by INFLIBNET and University of Mysore (Vidyavahini project), but the project has not taken off due to the copyright restrictions

Usefulness of DELNET Union Catalogues

- *The access to Union Catalogues created and developed by the library networks remains the most highly used resources by the member-libraries. The locations data available in the union catalogues helps the respective users to find out the availability of the documents in their own regions, state and in different locations of the country and outside. It is a very effective resource discovery tool and is a great boon to the scholars and researchers of the country*
- *The survey results have highlighted the fact that 85.7 percent of the member-libraries finds DELNET Union catalogues useful and 86.3 percent of the library users are getting benefited. While 78.9 percent of the Postgraduate students, 62.5 percent of the faculty and 53.7 percent of the graduate students are getting benefited from the DELNET services. The content available through the union catalogues are very selective in nature since the libraries purchase the titles through a strict selection process*

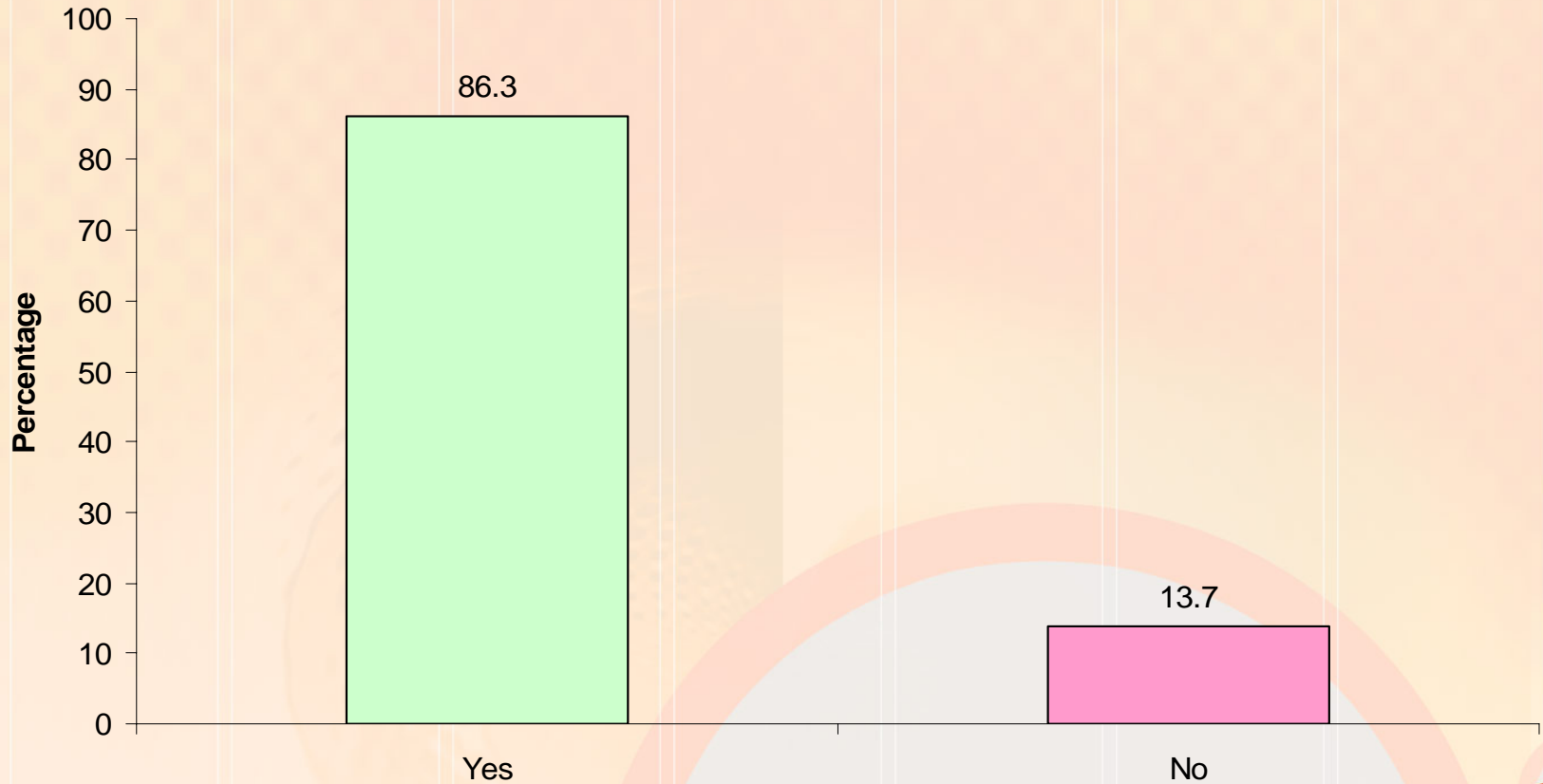
Usefulness of DELNET Union Catalogues

Do you find DELNET's Union Catalogues useful?



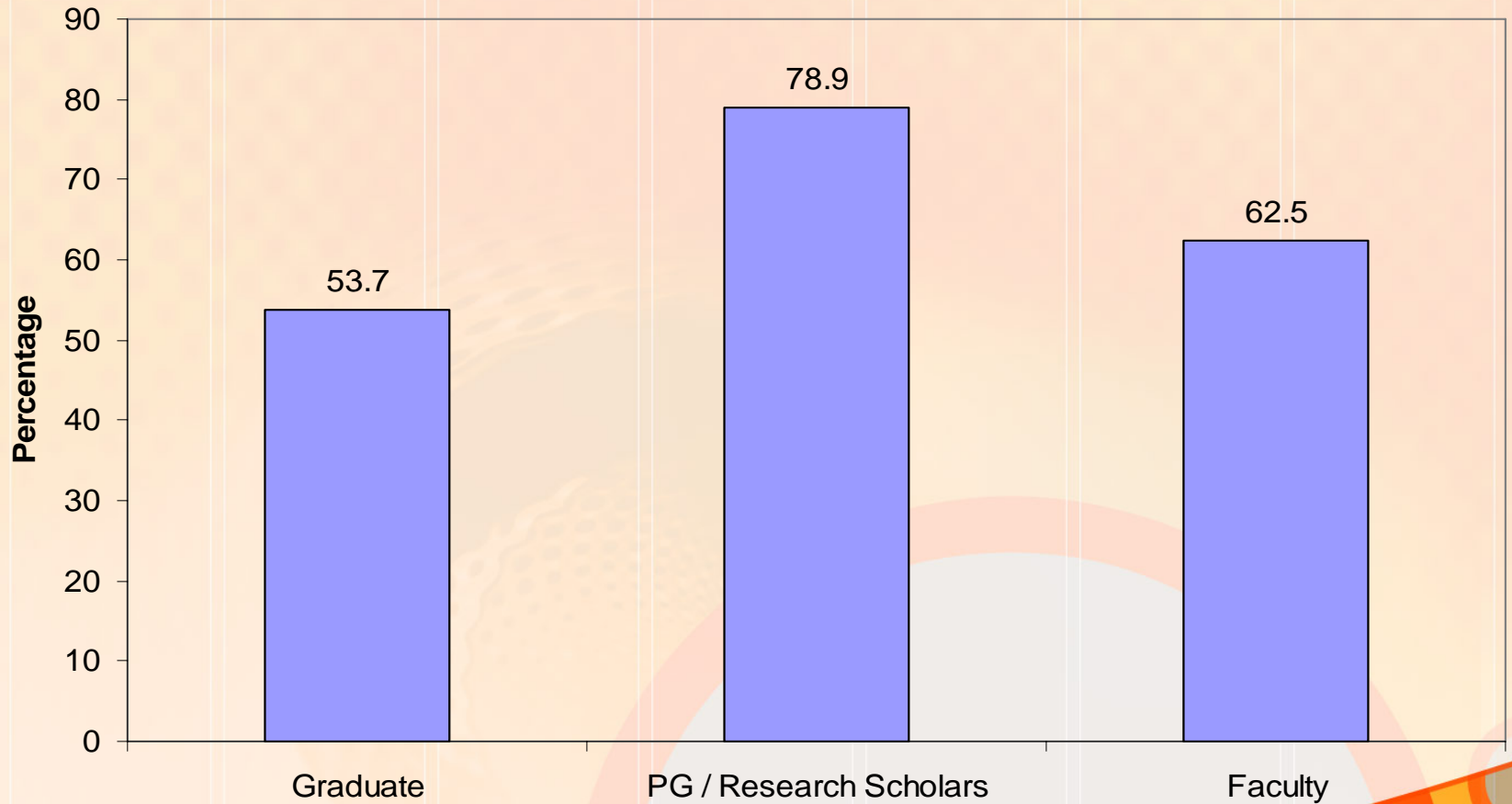
Usefulness of DELNET Union Catalogues

Do you feel library users are getting benefited?



Usefulness of DELNET Union Catalogues

Kind of users getting benefited from the DELNET services



DELNET Services and its Utilisation

- *Inter Libray Loan (ILL) and Document Delivery Services (DDS)*

- The DELNET's ILL and DDS services are one of the most popular services among the member libraries located in different parts of India as well as outside the country
- The requests for the supply of books on Interlibrary Loan or the requests to arrange for the journal articles are received by DELNET through various modes including DELNET Online System (options are available through the online databases), Email (one of the most prevalent method used by the member libraries), also through fax and at times through post also
- DELNET has a separate ILL tracking system wherein each and every transaction is recorded and status about its date of dispatch, date of return, etc. are well recorded
- DELNET is able to reach out to the users of the member libraries located in far-flung, remote parts of the country apart from those from the main stream cities
- The material is sent through the insured courier services

DELNET Services and its Utilisation

- *Inter Libray Loan (ILL) and Document Delivery Services (DDS)*

- It is worth mentioning that DELNET not only provides the ILL/DDS to its member libraries located in various parts of the country but is also engaged with International Interlending. DELNET sends the books on Interlibrary Loan to the member institutions outside India like Baha Social Sciences, Kathmandu, Nepal and Caledonian College of Engineering, Oman; Waljat College of Science and Technology, Muscat. Also the photocopies of journal articles are provided to the member libraries to NILIS, Sri Lanka, IRRI, Philippines, etc
- DELNET is also working towards the implementation of ISO ILL protocols
- The DELNET ILL/DDS services are the heart-line of DELNET. There is a great sense of satisfaction among the member-libraries availing to the services. The timeliness factor is crucial in library services

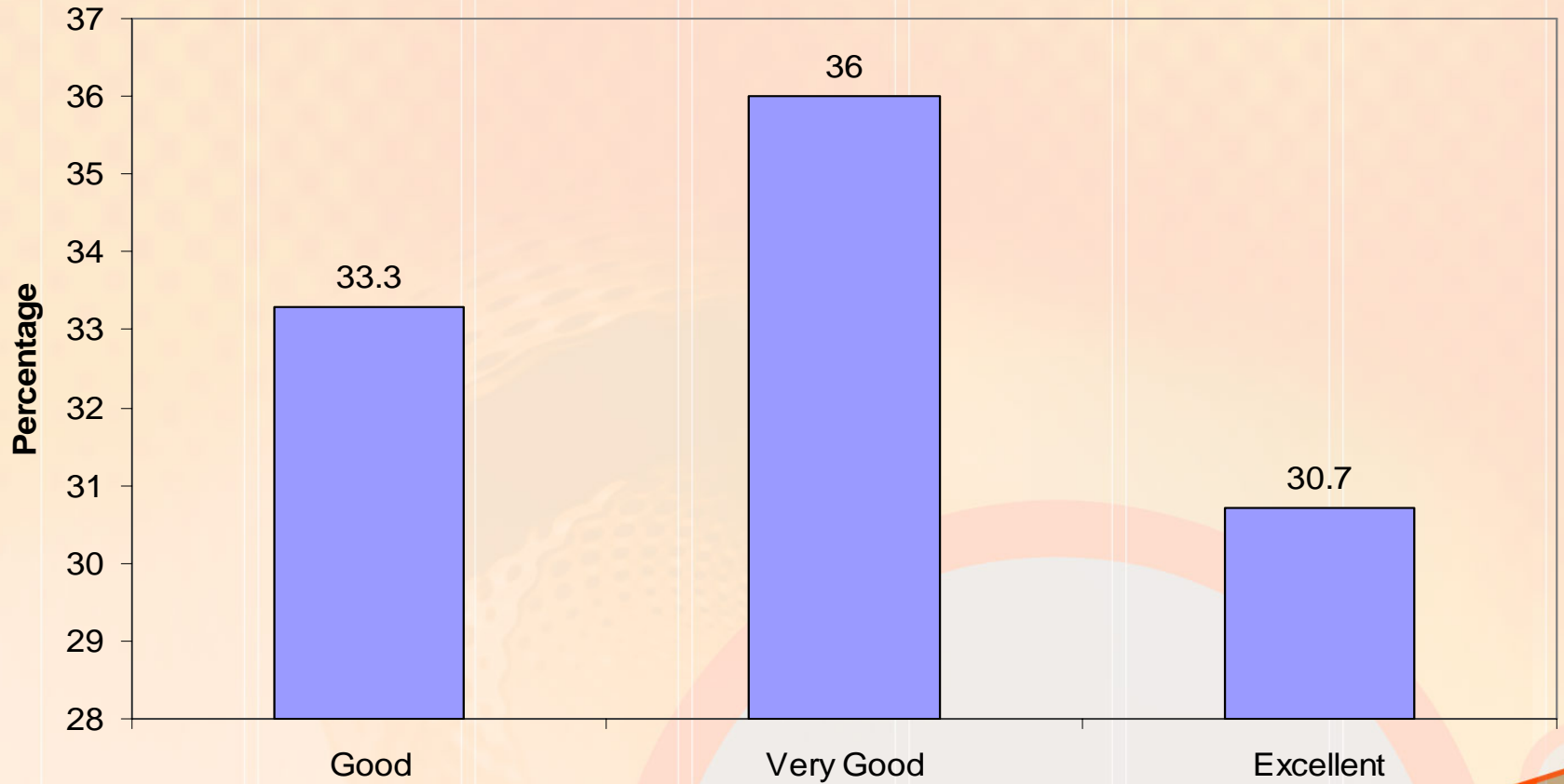
DELNET Services and its Utilisation

• *Inter Libray Loan (ILL) and Document Delivery Services (DDS)*

- The survey results supplements the fact that 30.7 percent of the respondents find the response time of ILL/DDS requests as excellent, while 36 percent rate it as very good and 33.3 percent finds the response time as 'good'
- Regarding the overall impression of DELNET services, 35.3 percent consider it as 'good', 31.9 percent finds it to be 'very good' and the rating of being 'excellent' was given by 23 percent and 2.72 percent considered the services as poor. The growth of DELNET membership since the year 1992 when it got registered as a society is highlighted in Appendix 3
- DELNET has also opened up a coordination units in Southern part of India i.e in Bangalore (Karnataka). The unit coordinates for the ILL/DDS services as the nation wide catalogue of the member libraries are available on the DELNET system and these it deals on day to day basis with the respective libraries of the region for the ILL/DDS

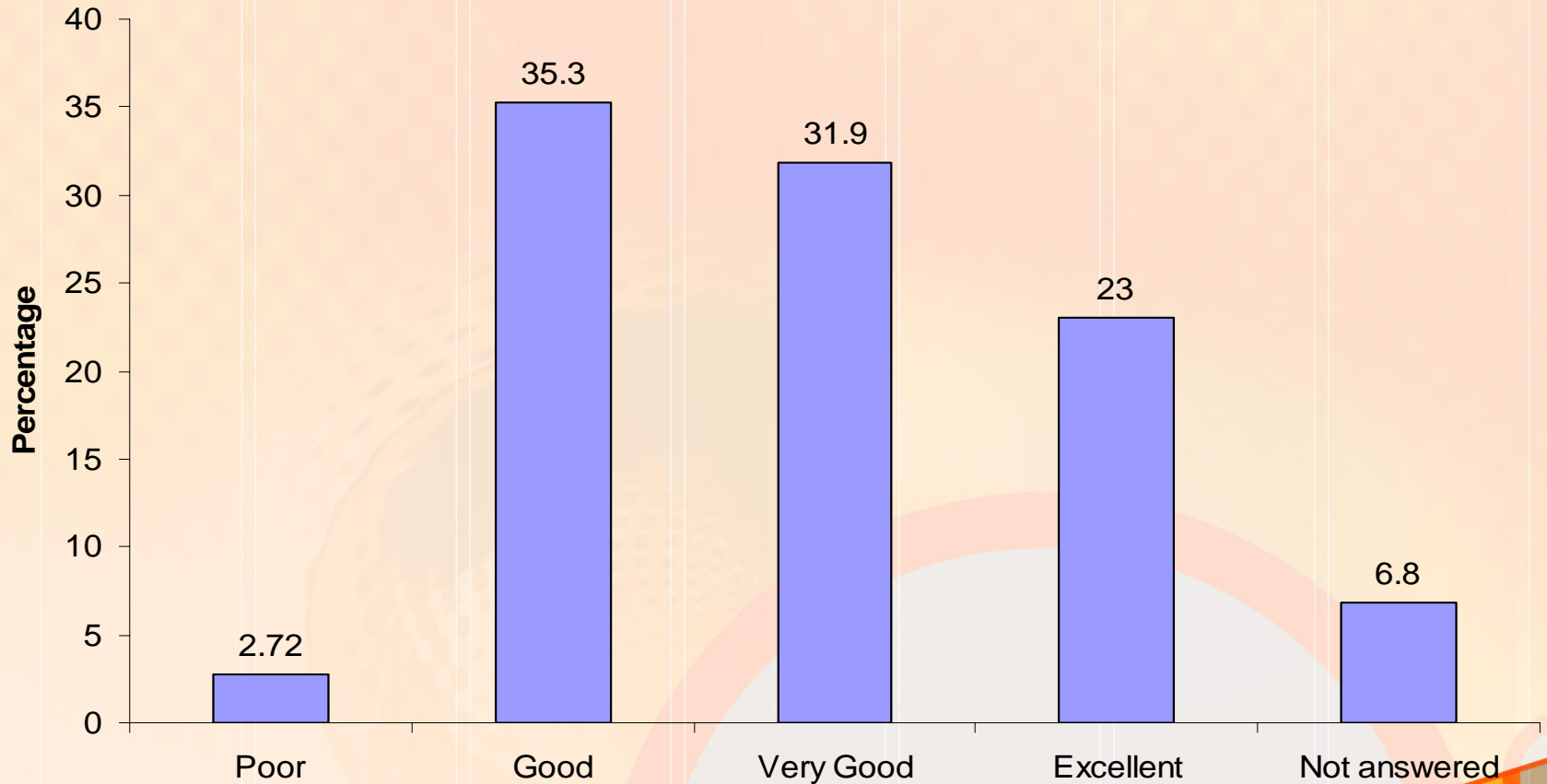
DELNET Services and its Utilisation

Response time of ILL/DDS services



DELNET Services and its Utilisation

How do you rate DELNET Services



DELNET Services and its Utilisation

- *Reference Services*

➤ DELNET receives a large number of reference queries every day through various modes. DELNET maintains a referral centre which provides reference services to the researchers, scholars and users from and outside India. DELNET is planning to start a national referral centre wherein the reference queries will be saved and accessed by the users on anytime, anywhere basis. It will be based on the question-answering technology

Networking Ahead – New Challenges

- *DELNET intends to network both libraries and knowledge in the integrated network model. National Knowledge Commission of the Government of India has identified DELNET as one of the major library network in India which will network more than 25,000 libraries in the near future in India*
- *DELNET is interested to help the libraries in tapping the tacit knowledge available in their Institutions and to contribute for the development of the Knowledge Repositories and networking the knowledge resources*
- *DELNET is supporting the establishment of Knowledge Centres in India. The plans are under consideration for establishing a Central Institutional Repository for the member-libraries in order to tap the tacit knowledge available with the researchers, scholars and the faculty members*
- *DELNET is interested to open shortly the State Centres in different parts of India and also the Regional Centres in order to provide training to the library professionals, promote the usage of network resources and also to help the local libraries in the development of the digital content*

Networking Ahead – New Challenges

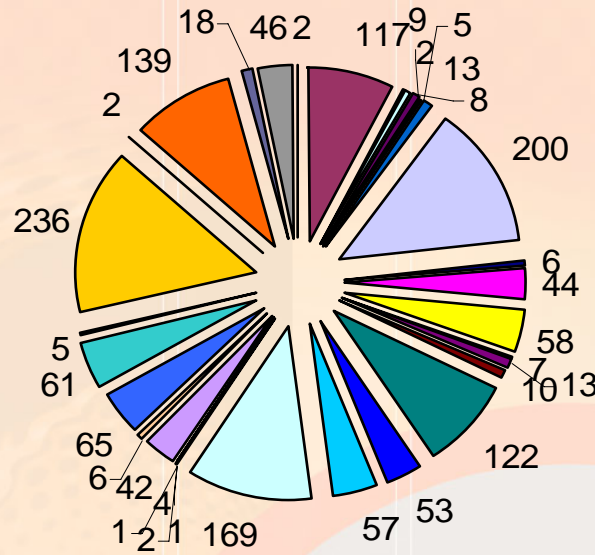
- *DELNET is wanting that more libraries especially specializing in South Asian studies from different parts of the World should become a part of the network and utilize the services and resources created for their researchers and scholars at much affordable cost*
- *DELNET is wanting to implement the social networking tools in order to enhance the user interaction. The DELNET Helpline support is also offered through the YMS. The users of the member-libraries of DELNET interact with the official of DELNET in an interactive mode and it brings the end users closer to DELNET*
- *DELNET is launching the Technical Support System for Koha- the Open source ILS in order to help the Indian Libraries for adopting the open source software. An online portal will also get launched soon by DELNET wherein the online audio/video learning material for implementing Koha, including tutorials on MARC 21 will be offered. It will be operational on 24/7 basis against a nominal registration fee*

Number of Member-Libraries as on September 18, 2009 - 1597

<i>Andaman and Nicobar Islands</i>	2
<i>Andhra Pradesh</i>	171
<i>Arunachal Pradesh</i>	2
<i>Assam</i>	8
<i>Bihar</i>	9
<i>Chandigarh</i>	5
<i>Chhattisgarh</i>	13
<i>Delhi</i>	200
<i>Goa</i>	6
<i>Gujarat</i>	44
<i>Haryana</i>	58
<i>Himachal Pradesh</i>	7
<i>Jammu & Kashmir</i>	13
<i>Jharkand</i>	10
<i>Karnataka</i>	122
<i>Kerala</i>	53
<i>Madhya Pradesh</i>	57

Geographical Distribution

INDIA



<i>Maharashtra</i>	169
<i>Manipur</i>	4
<i>Meghalaya</i>	1
<i>Mizoram</i>	2
<i>Nagaland</i>	1
<i>Orissa</i>	42
<i>Pondicherry</i>	6
<i>Punjab</i>	65
<i>Rajasthan</i>	61
<i>Sikkim</i>	5
<i>Tamil Nadu</i>	236
<i>Tripura</i>	2
<i>Uttar Pradesh</i>	139
<i>Uttaranchal</i>	18
<i>West Bengal</i>	46



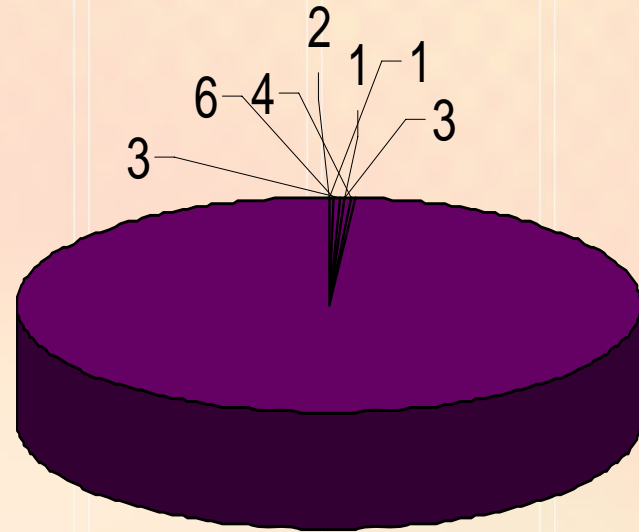
Appendix I

2. Other SAARC Countries

- *Nepal* 2
- *Pakistan* 1
- *Sri Lanka* 6
- **Total** 9

3. Outside SAARC

- *Oman* 3
 - *Philippines* 1
 - *United Arab Emirates* 3
 - *United States* 4
 - **Total** 11
-
- **GRAND TOTAL** 1597



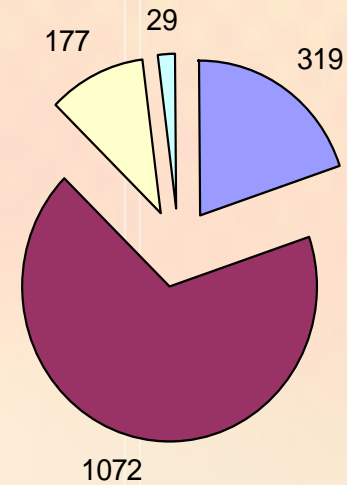
1577



Appendix 2

Subject -wise Breakup

General	319
Science and Technology	1072
Social Science	177
Humanities	29
Total	1597



Appendix 2

Types of Libraries

Academic

Universities

93

Colleges/Institutes/
Deptt./Centres

1293

1386

Research/Special

117

Public Libraries

7

Government Libraries

36

Libraries of Diplomatic Missions/UN Agencies

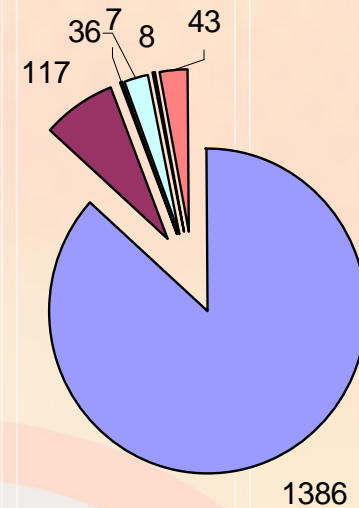
8

Miscellaneous including Trusts

43

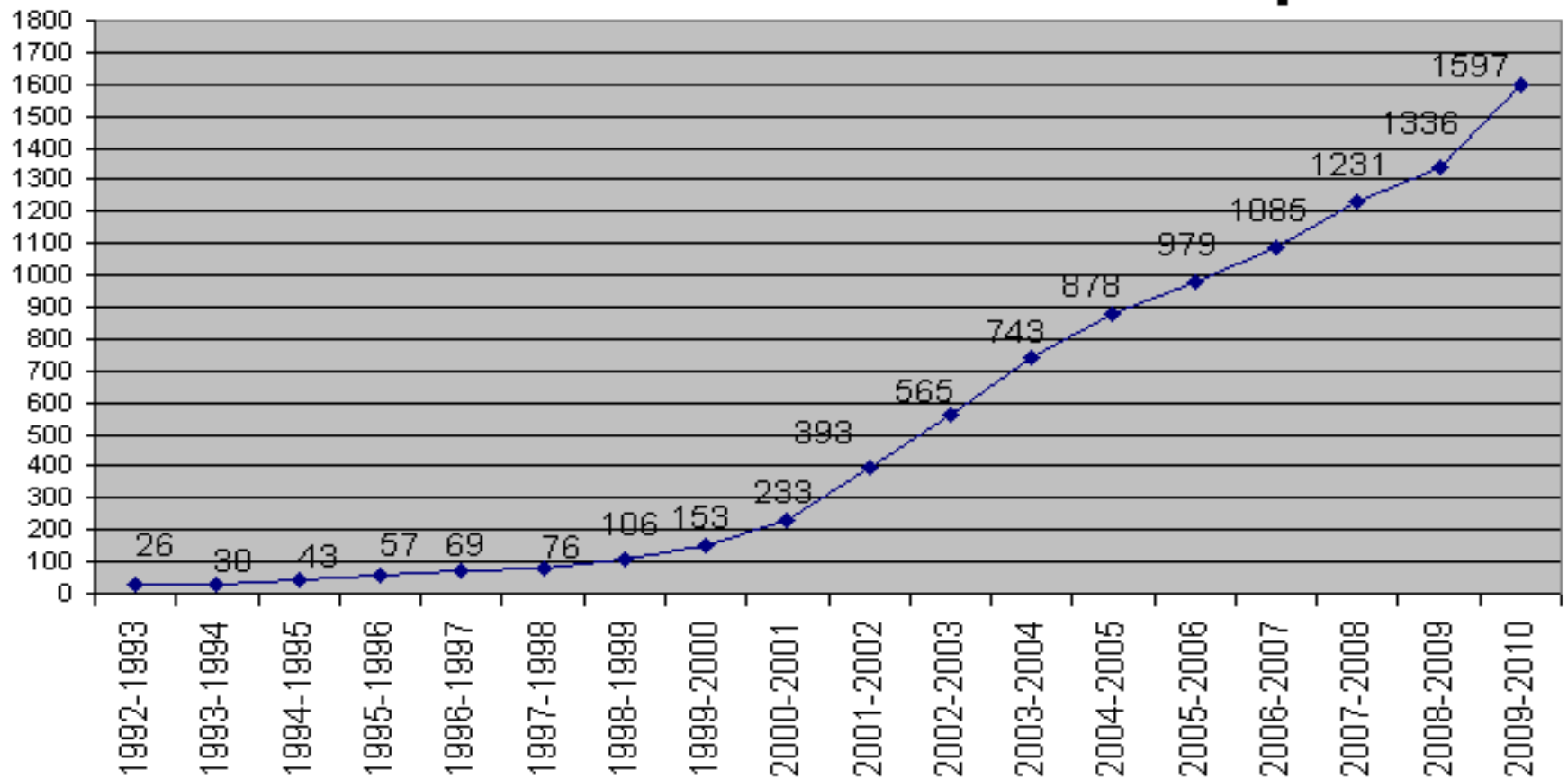
Total

1597



Appendix 3

Growth of DELNET Membership



Thank You!

