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The Application and Use of Library Intranet Services at the Indian Institute of Technology, Delhi

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Introduction

Indian Institute of Technology, Delhi (IITD) was established in 1963 as one of the seven institutes of technology in India created as centres of excellence for higher training, research, and development in science, engineering, and technology. The central library of IIT, Delhi is one of the most model academic library. All the students, faculty, employees of the institute are entitled to make use of its services and facilities. Its collection has now increased to 3 lakhs comprising books, periodicals, reference works, technical reports, CD-ROM databases, Video cassettes etc. The library subscribes to 657 current journals and providing access to 6500 scholarly journals through INDEST Consortium. It has also access to more than 3,000 electronic journals (full text). The leading abstracting and indexing databases in the field of engineering and technology are also available on intranet and internet. CD-ROM search services, in-house database services and electronic journals are the major services available on the institution's intranet.

Library Collection

The library has a rich collection of books on S&T, including chemistry, mathematics, physics, computer engineering, civil engineering, computer sciences, electrical and electronics engineering, textile engineering, biotechnology, humanities, and social sciences

The collection includes 657 current printed journals, 246,918 books, 98,942 bound volumes of journals, 26,923 standards, 1,095 pamphlets, 15,400 technical reports, 3321 theses, 1,460 video cassettes, 2,340 microfilm/microfiche, and 1,360 compact CDs and DVDs.

Library Homepage

The library home page is an integrated interface for all computer and web-based

services available in central library. It offers the following information services at:

- General information about central library
- Library executives
- Frequently asked questions (FAQ)
- ACL members
- Collection and libraries services
- Library Newsletter (latest issue)
- Library services
- E-resources

The increasing commitment to the web-based digitized collections at the Central Library, IIT Delhi coincide with installation of fibre optics-based Campus-LAN connected to a 2 Mbps VSNL Radio Link enabling faster Internet access for the academic community of the Institute. The availability of high-speed Internet connection has led to launching of a number of sponsored and unsponsored project for developing network-based digitized collections within the frame work of tradition library and information services at the Central Library, IIT Delhi. The Library has adopted a multi-pronged strategy to embark upon the world of electronic information.

The Library maintains a home page that serves as a single integrated interface designed to provide access to all computer and web-based services available to the academic community of the Institute. The role of a library, it is said, is to provide structured access to its carefully planned collections. If electronic resources on the web are treated as new medium of information access and its delivery, the librarians have to play their roles of selecting, evaluating, describing, annotating and providing intelligent access to electronic information available on the web. The home page of the Central Library, IIT Delhi serves as a single integrated interface designed to provide access to the following computer and web-based services available to the academic community of the Institute:

i. Activities, infrastructure, and services of the Library. The page also provides floorplans and library layout design through an image map;

ii. Access to the Libsys package and the Library's OPAC through a) Libsys Window-based client; b) Libsys telnet application link at the IP Address 10.116.2.15 (Intranet); and c) Libsys Java Client.

iii. Access to the Delhi Library netwok (DELNET) databases and services through a telnet link at the IP Address "delnet.ren.nic.in";

iv. Access to the web-based CD networking system available on the intranet server at the IP Address "10.116.2.1";

v. Access to the scanned images of old, fragile, and deteriorating volumes of journals scanned in-house descibed above; and

vi. Serves as a structured and organized guide to the electronic resources available on the Internet. The electronic resources available on the Internet is kept updated regularly for new and outdated links. In all, the Central Library Home Page provides more than 2000 links to electronic resources on the Web. The Library's Home Page can be accessed both on Internet and Intranet at the following site:

a. *http://10.116.2.1/iit/index1.html* *(Intranet)*

b. *http://www.iitd.ernet.in/~library* *(Internet)*

vii. Access to Full-text Electronic Journals subscribed by the Central Library, IIT, Delhi

Network Connections

The computer infrastructure in the Central Library which includes 30 terminals,

Eleven Pentium machines and a CD server has connectivity to the following networks:

- Optical fibre-based campus radio link for faster access to the Internet through VSNL gateway.
- Education & Research in Computer Network (ERNET)
- Development Library Network (DELNET).
- Internet

Objectives of the study

1. To ascertain the frequency of utilization of existing intranet services at IIT library and the place from where the users access to intranet.

2. To find out the purpose of using intranet services and to know which Intranet service is most used & which used least.

3. To assess the search behaviour of the users with regard to accessing library intranet services and various types of database used by them.

4. To know whether information accessed through intranet is helpful or not and whether library is providing special training to it users for better utilization of the available intranet sources or not.

5. To understand the problems faced by the users while using intranet & to find out solution for some of the current problems.

6. To find out the users satisfaction regarding the intranet usage.

7. To collect suggestions from the users for further development of library intranet facilities & services.

Significance of the Study

This study is of significance to the domain of educational technology as it extends the knowledge base that currently exists in that field. The concept of Intranet technology is relatively new to the majority of educational institutions. The handful of institutions who have chosen to embrace the concept and implemented the technology have welcomed the educational and administrative benefits it has to offer. Therefore, study which explores the usage and advantages of such technology will help to raise awareness among those who are unacquainted with its potential applications and benefits within their educational setting. To illustrate the potential of intranet the study has investigated IIT (D) using the technology. The findings which have resulted from the study have the capacity to impact upon the method by which electronic information literacy skills are currently undertaken in schools.

This study has been of significance to over 400 interested users who wanted to learn more about the setting up process and application possibilities of intranets. The study will be resulted in the formation of a Special Interest Group which offers members ongoing access to a virtual meeting place. The forum, will be fostering a collaborative approach whereby all members contribute and respond to questions, suggestions and ideas concerning the building, maintenance and integration of a knowledge-based Intranet. Members interact either electronically, using the group's Internet-based Email list or face-to-face at the group's regular institutional meetings. The interest among users is evident from the rapid growth of members subscribing to the group mailing list and attending meetings. Having justified its significance to the members of the Intranet Special Interest Group this research is poised to expand the general knowledge-base for further research into the area of

knowledge-based Intranet technology.

One the basic of the study, investigator can identify the problems which are facing by users in using Intranet in IIT library, Delhi and suggest how to improve its services to fulfill the needs of the users. The results of the survey can be used by the institute to determine priorities for policy, especially at the time when Intranet resources are very limited in the country.

Review of Related Literature

Robbins, Engel, and Bierman (2006) tried to evaluate usage of the content management tools at the University of Oklahoma Libraries (UL). The author surveyed all levels of library personnel to see how they utilized the library intranet to manage website content. Study explores the issues surroundings the use of intranet as a tool for communication and managing content on a public website. The authors examined both self-reported usage of the staff intranet and data collected from the systems office about actual usage. This study provides insight on the intended use of content management systems versus the actual usage of these systems. Survey results were skewed by including student workers who seldom have reason to use the intranet within the scope of their positions.

Bottazzo (2005) made a study on the development of an organization and setting up of a training portal as a tool for Intranet training, submission and flow of information. This article reports on the extent to which three South African academic libraries, selected by means of the purposive sampling method, utilise the intranet as a knowledge management tool. Based on the literature, knowledge management and an intranet are briefly defined. The advantages of the intranet as a knowledge management tool as well as the content of an intranet are discussed. The opinions about knowledge management and the use of the intranet as a knowledge management tool in the three academic libraries are weighed up against the findings in the literature.

Meyyappan, Schubert, and Chowdhury (2005) discusseed the design, development and evaluation of a task-based digital library, the Digital Work Environment (DWE), for the academic community of higher education institutions (HEI) with Nanyang Technological University, Singapore, as a test case. Three different information organisation approaches (alphabetical, subject category and task-based) were used to organise the wide range of heterogeneous information resources that were interfaced to DWE. A user evaluation study using a series of task scenarios was carried out to gauge the effectiveness and usefulness of DWE and these information organisation approaches. The time taken by respondents to identify and access the relevant information resources for individual tasks was also measured. The findings show that the task-based approach took the least time in identifying information resources. Regression analysis of information resource location time with gender, age, computer experience and digital resource experience of the participants are also reported.

Hamilton and Snyman (2005) are of the view that in addition to knowledge, the flow of information or efficient organisational communication is an essential condition for the successfulness of every organisation. Although the ideal vertical and horizontal communication is difficult to achieve, training-informational centres and special libraries should also strive to achieve this goal. Advantages of available communication technology, especially the Intranet, should be taken for this purpose as much as possible. The control of the field of management or knowledge transfer is a complex problem, which is practically unmanageable without the tool for knowledge dissemination. This is the reason why portals are used more and more. It is common to them that these are starting pages, where basic information is gathered in a condensed form; portals are starting points for more detailed information. They function on the basis of the technology supported by browsers. The topic of this paper is the development of an organisation in the process of learning, especially the need analysis of an organisation and setting up

of a training portal as a tool for Intranet training, submission and flow of information.

Mustafa and Razeq (2004) made a study which was concerned with gathering factual data on the use of local online information systems, automation, online public access catalogues (OPAC's), CD-ROM based systems in 19 Jordanian University libraries. Information was sought through a written questionnaire, personal interviews, literature review and field visits. The implementation of local online information systems, OPAC's, CD-ROM databases, online searching networks/databases subscribed to, methods of online services to users, problems and solutions are investigated. Of the 18(94.7%) libraries responded, half (50%) are using MINISIS or CDS/ISIS, one third (33.3%) is using either M2L, or ORACLE based systems, and 3(16.7%) are using locally designed packages. Technical processing, Information retrieval, circulation, reference services, and serial control are the prime system functions. All respondents are linked to the internet. A total of 15(83.3%) respondents have developed collections of databases on CD-ROMs, 11(73.3%) use single access, and four (26.7%) use multi-user systems.

Shenton and Johnson (2007) have tried to investigate pupil use of newly-created section of a school intranet established to promote greater interest in the organisation's library. Data was collected over a two-week period via Microsoft Share Point, the software which supports the intranet, were examined in order to explore overall levels of use of the library pages, differences in interest between girls and boys, variations in use among youngsters in the particular year groups and, the extent to which use changed over time. Findings revealed that although an equal number of girls and boys visited the library pages, the former recorded more hits. Use was greatest among Year Eleven females but few youngsters of either gender or any age returned to the library section on a day subsequent to their initial visit. Interest fell away rapidly within days of the principal phase of data collection commencing.

Methodology

The present study is conducted on a sample of 400 users. The tools used for the present study were questionnaire, observation and informal interview.

Investigators visited the library of IIT, Delhi and approached the users and library professionals to collect the necessary data. Questionnaires were administered to the users and filled questionnaire were collected either on the spot or after 1 or 2 days.

Data Analysis and Interpretation

Immediately after the data collection, the next step is data analysis and interpretation of results. Analyzing means categorizing, ordering, manipulation and summarizing of data to obtain on answer to the research problem. The collected data was organized and tabulated by using tables and percentages. The purpose of analysis was to reduce data intelligible and interpretable form so that the relations of research problems can be studied and tested. To collect the opinion about the intranet users is IIT Delhi total number of 450 questionnaires were distributed among the users of IIT, Delhi, out of which only 400 filled questionnaire were returned to the investigator. Thus the investigator selected the entire set of completed questionnaires for the analysis of data. The data collected through questionnaires were organized and tabulated by using statistical methods and percentages.

User Response Analysis

Frequency of intranet usage

Investigators asked users about the frequency of intranet usage on a daily basis and got to know that (12.5%) respondents use the intranet less than one hour, followed by (17.5%) for one hour, (25%) for two hours, and (50%) for more than two hours. Thus it can be seen that a large percentage of respondents are using intranet regularly

Access to intranet

Respondents were asked to indicate the place from where they assess intranet. Data revealed that a good number of respondents , 300, i.e. (75%) respondents access intranet from the computer centre, 150, i.e., (37.5%), from departmental lab, 50, i.e., (12.5%) from library and 25% access the intranet from hostel.

Purpose for using intranet

As indicated in the table, (13.75%) respondents use intranet for communication, (36%%, use for research purpose, (22.5%) for updating knowledge, (26.25%) for study, (25%) for teaching assessment and (16.25%) for decision making. A graph of the purpose of using Intranet has been shown in (fig. 1)

It is quite natural that the library users are giving top priority to the purpose of accessing intranet for research/study purpose as well as for making assignments.

Availability of intranet services

Users participating in the survey were asked about the availability of intranet services. It was found that (22.5%) respondents are using current awareness services available on intranet followed by indexing services (7.5%), abstracting services (33.75%), www (22.5%), e-journals (36.75%), news (22.5%) and e-mail (26.25%)

The general conclusion is that e-journals and abstracting services are very useful among the intranet users of IITD Library.

Search behaviour of users

Answering to the question regarding search behaviour of users, it was found that (22.5%) respondents search through author, (16.25%) through class number, (16.25%) through keyword and (45%) search through title.

Types of database used

Creation of databases of books, serials, and other documents is a pre-requisite for online library operations and networking. As an indicator of automating respondents were asked to indicate the databases created for them such as books, serials, theses along with the number of records in each database. The results are presented in Fig. 2.

From Table 6 it is clear that. (25%) respondents are using the database of serials through intranet, (22.5%) are using the database of text books. (27.5%) are using the database of PhD theses, and majority of respondents' i.e. (37.5%) are using the database of research articles for accessing the latest information.

Information access through Intranet

Half of the users find information accessed through intranet to be most useful, followed by 37% percent who replied it was helpful, whereas, (12.5%) found information accessed through the intranet not helpful.

Awareness of OPAC

Awareness of the OPAC indicates the degree of user knowledge and availability of the service and the extent made use of them. The analysis of the responses furnished by the respondents in respect to the awareness of OPAC depicts that 75% of respondents are aware about the OPAC through the intranet while 25%) were not at all aware.

Rating the speed of Intranet

Replies to the question related to the satisfaction level it has been found that. (12.5%) respondents expressed their view that the speed of intranet is very fast, (22.5%) expressed the speed of intranet fast, (40%) rating the speed average while (25%) opined that the intranet speed is slow.

Satisfaction level

Users satisfaction regarding various intranet services reveals that (87.5%) respondents of IITD library are satisfied with the available intranet services whereas, (12.5%) of them are not satisfied with intranet services. This may be the reason that the infrastructure facilities in the IIT library are quite adequate to meet the information needs of the users.

Problems

Efforts were made to know the opinion of the library users about the problems faced by them while accessing intranet services in IITD. Information received from users is tabulated in table 11.

Answering the question regarding difficulties faced by the users, a large majority (50%) have absolutely no difficulties in using the intranet services. To understand the problems facing by the users, the problem is categorized in five different categories from the analysis it is observed that (22.5%) respondent are facing a lack of knowledge about the intranet followed by guidance / technical 34.5% and slow downloading 12.5% where as. (50%) have no response to this question. The investigator understands that the lack of guidance about internet services and limited access terminals are the major problems faced by the users. It may due to the lack of a bulletin board service and inadequate terminals and printers and shortage of trained staff in the library. The students of IITD are not facing financial problem because IIT Library intranet service is free of cost.

Intranet efficiency

The investigators have described that to make intranet facility efficient (62.5%) respondents suggest that the library should initiate training programmes, (37.5%) would like cooperation from staff and (12.5%) need an uninterrupted power supply, whereas, i.e. (12.5%) argue that there are other needs that must be fulfilled in order to make Intranet efficient.

Findings

The following are major findings of the present survey:

1. It was found that most of the users are regular and used the intranet more than two hours (50%) , (25%) use intranet for two hours, while (17.5%) users use the intranet for one hour and 7.5% use it for less than one hour.

2. Large number of the users (75%) access intranet from computer centre followed by the departmental lab (37.5%) and library (12.5%)

3. Most of the users (36%) are accessing Intranet for the purpose of research followed by the purpose of updating knowledge (22.5%)

4. The main sources available on intranet are E-Journals (36.75%), followed by abstracting Services (33.75%), e-mail (26.25%) www (22.5%) and current awareness services (22.5%).

5. Study reveals that most of the users search information by title (22.5%), followed by class number and keyword (16.25%).

6. Database of research articles are mostly used by the user of IIT (37.5%) followed by databases of PhD thesis (27.5%), followed by database of serials (25% and database of text books (22.5%). (table 6)

7. Majority of users feel that information access through intranet related to their study & research purpose is most helpful (50%) followed by helpful (37.5%) and not helpful (12.5%)

8. Most of the users (75%) are using OPAC while (25%) are not using it.

9. Large number of the users (40%) are of the opinion that the speed of intranet is fast, followed by slow (25%), average (22.5%) and very fast (12.5%).

10. Majority of the users (37.5%) are facing problems because of limited access terminals, followed by slow speed (12.5%) and (50%) not responded to the question.

11. Most of the users (87.5%) are satisfied with Intranet facility available in IIT, Delhi while (12.5%) of users are dissatisfied with the intranet.

12. To make Intranet facility efficient there needs to be training programmes (62.5%) followed by cooperation from staff (37.5%), uninterrupted power supply (12.5%) and (12.5%) not responded to the question.

Suggestions for Improving Intranet Services

Based on the feedback provided from the survey IIT Library should develop an intranet cite search that will assist in the discovery of intranet based information. Moreover, a system should be implemented to alert users of new content. There should be a searching capability to the intranet, creating an internal knowledge based, expending the electronic resource management system to include administration and licensing information and creating strong support for intranet based news and announcement. The library should develop a new web and intranet development planning process. Trained personnel help to achieve the objectives of the library of a better way. Training of personnel is essential because effectiveness of the library depends on the performance of the staff. There should be a special training to the users of the library to teach them how to use intranet in IITD. A committee should form to access the proper functioning of intranet that will asked the library faculty and staff what they want to accomplish through the website, what new features they want to offer, and what new services should be developed for library users. In addition web usability tests should be conducted on the website and intranet. Finally, the IIT administration needs to encourage

librarian, staff and different departments to develop their unit pages on the intranet to give users and employees a reason to use the intranet.

Conclusion

The present study seeks to examine the use of services of Intranet by the users in IIT, Delhi. The survey reveals that all the users are aware of Intranets in IIT, Delhi from this survey, the investigator has been able to find out that users are availing Intranet facility from their departmental labs central library and computers Centre not only for research purposes but also for preparing teaching assignment and to update their own knowledge. Most of the users are using Intranet facility and services. A large number of users like abstracting services, Indexing sources, current awareness sources and reference sources. Electronic Journals are mostly used by the IIT, Delhi users. But users are facing problems of lack of training acres terminals. Most of the users are using Intranet facility and services A large number of users like abstracting services, Indexing sources, current awareness sources and references sources. Electronic Journals are mostly used by the IIT, Delhi users. Users are facing problems because of lack of training and limited access terminals. Most of the users are aware of OPAC available on Intranet. Database of research articles are mostly used by the users of IIT followed by data base of PhD theses and database of serials. It would be better if the library provided personalized service for scientists through the Intranet. It is a common feeling that the end users should be taught about the search strategies and the use of controlled vocabulary to make intranet browsing much easier.

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Table 1 Frequency of Intranet Usage

Time	No. of Responses	Percentage
Less than one hour	50	12.5%
One hour	70	17.5%
Two hours	100	25%
More than two hours	200	50%
No Response	-	-

Investigators have asked the users about the frequency of intranet usage on a daily basis and got to know that 50, i.e. (12.5%) respondents use the intranet less than one hour, 70, i.e., (17.5%), use for one hour, 100, i.e. (25%) use for two hours, while, 200, i.e., (50%) use intranet for more than two hours. Thus it can be seen that a large percentage of respondents are using intranet regularly

Table 2 Accessibility of Intranet

Place of access	No. of Responses	Percentage
Computer center	300	75%
Department	150	37.5%
Library	50	12.5%
Hostel	100	25%

(Multiple responses were permitted)

Respondents were asked to indicate the place from where they assess intranet. Data revealed that a good number of respondents, 300, i.e. (75%) respondents access intranet from the computer centre, 150, i.e., (37.5%), from departmental lab, 50, i.e., (12.5%) from library and 25% access the intranet from hostel.

Table 3 Purpose of using Intranet

Time	No. of Responses	Percentage
For communication	55	13.75%
For Research	144	36%
To update knowledge	90	22.5%
For Study	105	26.25%
Teaching Assignment	100	25%
Decision making	65	16.25%

(Multiple responses were permitted)

As indicated in the table, 55, i.e. (13.75%) respondents use intranet for communication, 144, i.e., (36%%, use for research purpose, 90, i.e. (22.5%) use to update knowledge, 105, ie., (26.25%) use for study, 100, i.e. (25%) use for teaching assessment and 65, i.e., (16.25%) use for decision making. It is quite natural that the library users are giving top priority to the purpose of accessing intranet for research/study as well as for making assignments.

Table 4 Availability of Intranet Services

Services	No. of Responses	Percentage
Current Awareness	90	22.5%
Indexing Services	30	7.5%
Abstracting Services	135	33.75%
WWW	90	22.5%
E-Journals	147	36.78%
News	90	22.5%
E-mail	105	25.25%

The general conclusion is that e-journals and Abstracting services are very useful among the Intranet users of IITD Library.

(Multiple responses were permitted)

Users participating in the survey were asked about the availability of intranet services . It was found that 90, i.e. (22.5%) respondents are using current awareness services available on intranet followed by Indexing Services (7.5%), Abstracting Services (33.75%), WWW (22.5%), E-Journals (36.75%), News (22.5%) and E-mail (26.25%)

Table 5 Search Behaviour of Users

Search Strategy	No. of Responses	Percentage
Author	90	22.5%
Class Number	65	16.25%
Keyword	65	16.25%
Title	180	45%

(Multiple Responses were permitted)

Answering to the question regarding search behaviour of users, 90, i.e. (22.5%) respondents search through Author, 65 i.e. (16.25%) through class number, (16.25%) through keyword and 180 i.e. (45%) search through title.

Table 6 Types of Databases Used

Databases	No. of Responses	Percentage
Database of serials	100	25%
Database of Text books	90	22.5%
Database of Ph.D. Thesis	110	27.5%

Database of Research Articles	150	37.5%

(Multiple Responses/answers were permitted)

Creation of databases of books, serials and other documents is a pre-requisite for online library operations and networking. As an indicator of automating respondents were asked to indicated the databases created for them such as books, serials, theses along with the number of records in each database. From Table 6 it is clear that out of 400, 100 i.e. (25%) respondents are using the database of serials through intranet, 90, i.e. (22.5%) the using the database of text books 110 i.e., (27.5%) are using database of Ph.D thesis and majority of respondents i.e. 150 i.e. (37.5%) are using database of research articles for accessing the latest information.

Table 7 Information access through Intranet

Information Access	No. of Responses	Percentage
Most Helpful	200	50%
Helpful	150	37.5%
Not helpful	50	12.5%
No response	-	-

Table summarieses the percentage of respondents that perceives intranet services to be very useful, useful and not useful. From the analysis it is evident that 50% of the users finding information accessed through intranet to be most useful, followed by 37% percent who replied it was helpful, whereas, 50, i.e. (12.5%) find information accessed through intranet is not helpful.

Table 8 Awareness about Opac

Awareness	No. of Responses	Percentage
Yes	300	75%
No	100	25%

Awareness regarding OPAC indicates the degree of user knowledge and availability of the service and the extent made use of them. The analysis of the responses furnished by the respondents in respect to the awareness of OPAC depicts that out of 400, 300 (75%) respondents are aware about the OPAC through intranet while 100, i.e. (25%) were not at all aware.

Table 9 Rating the speed of Intranet

Speed	No. of Responses	Percentage
Very fast	50	12.5%
Fast	160	40%

Average	90	22.5%
Slow	100	25%

Replies to the question related to the satisfaction level it has been found that 50, i.e. (12.5%) respondents expressed their view that the speed of intranet is very fast, 90 i.e. (22.5%) expressed the speed of intranet fast ,160 i.e. (40%) rating the speed average while 100, i.e. (25%) opined that the intranet speed is slow.

Table 10 Problems while using Intranet

Types of Problems	No. of Responses	Percentage
Lack of knowledge	90	22.5%
Limited access terminals	150	34.5%
Slow speed	50	12.5%
Lack of guidance	150	34.5%
No response	200	50%

(Multiple responses were permitted)

Efforts are made to know the opinion of the library users about the problems faced by them while accessing in IITD. Information received from users is tabulated in table 11.

Answering the question regarding difficulties faced by the users, a large majority (50%) have absolutely no difficulties in using the intranet services. To understand the problems facing by the users, the problem is categorized in five different categories from the analysis it is observed that 90 i.e (22.5%) respondent are facing a lack of knowledge about the intranet followed by guidance / technical 34.5% and slow downloading 12.5% where as 200 i.e. (50%) have no response to this question. The investigator understands that the lack of guidance about internet services and limited access terminals are the major problems faced by the users. It may due to the lack of a bulletin board service and inadequate terminals and printers and shortage of trained staff in the library. The students of IITD are not facing financial problem because IIT Library intranet service is free of cost.

Table 11 Satisfaction level regarding Intranet

Satisfaction Level	No. of Responses	Percentage
Yes	350	87.5%
No	50	12.5%

It is clearly shown from the analysis that 350, i.e. (87.5%) respondents of IITD library satisfied with the available intranet services whereas, 50 i.e. (12.5%) of them are not satisfied with Intranet services. This may be the reason that the infrastructure facilities in the IIT library are quite adequate to meet the information needs of the users.

Table 12 Methods of making Intranet facility efficient

Methods	No. of Responses	Percentage

Training programmes	250	62.5%
Cooperation from staff	150	37.5%
Uninterrupted Power supply	50	12.5%
No. Response	50	12.5%

(Multiple Responses were permitted)

Table 12 describes that to make intranet facility efficient 250, i.e. (62.5%) respondents suggest that the library should initiate training programmes, 150, i.e. (37.5%) would like cooperation from staff and 50, i.e. (12.5%) need an uninterrupted power supply, whereas 50, i.e. (12.5%) argue that there are other needs that must be fulfilled in order to make Intranet efficient.