A BSTRACT

The Internet has its impact on all spheres of life – social, economical, education, cultural, etc. All the advancements made in the domain of e-publishing are unarguably based on the web technologies. It has provided universal access to information through diverse technological innovations. The academic community is one of the major beneficiaries of these advancements and online access. The faculty and students are now dependent on e-journals, online databases and other e-resources for enhancement in the quality of teaching, learning, research and publications. The aim of this study was to analyze the use of the Internet and related issues among the teachers and students (B.Tech III) of Swami Devi Dyal Institute of Engineering. A well-structured questionnaire was distributed amongst faculty members and students to understand their feedback and experience regarding various aspects of Internet including frequency, satisfaction level, type of e-resources accessed, file type preferred, purposes for which the Internet is used, etc. It was found that the Internet had become a helpful tool in the hands of students and faculty members and the online resources are acknowledged as vital instrument for teaching, research and learning process of these respondents.

Key Terms: Engineering Students and Faculty, User Study, Internet usage, e-resources, user satisfaction, search engine requirements, Swami Devi Dyal Institute of Engineering (SDDIE)

INTRODUCTION

The amount of information on the Internet is of a magnitude larger than any previous collection of any sort. We have reached the point where it’s too large to be effectively, searched, filed, indexed, briefed, organized, or numbered. Today’s Web is so much bigger that it’s impossible to organize it by category in a meaningful way. Teachers and students are depending more and more on the Internet for their various educational purposes. It is, therefore, important to find out up to what extent they are utilizing this facility, for what purposes they are using it and to know how the Internet has influenced the academic efficiency of the target users. The present survey is an attempt to assess the effectiveness of Internet as an educational tool, and what role it actually plays in the educational system with special reference to the engineering college under study. The study also explores the satisfaction level of the users with the Internet facility made available by the college.

Engineering College: A Profile

Swami Devi Dyal Institute of Engineering (SDDIE), which was established in the year 2008, has a Unique Campus located in the foothills of shivaliks, spread in a sprawling green lush 20 acres of land, in closest vicinity of Panchkula-Chandigarh—Mohali. It endeavors to provide high level teaching, research and extensive activities in the field of professional engineering and management education.

This Institute was established with a goal of imparting quality technical education to the students, keeping in view the global technological developments and to meet the requirement of
dynamic industry in 21st Century and transform them into professional of distinguishable standards. It aims to create an entrepreneurial attitude, spirit and result oriented motivation among budding engineers. The institute is linked to Kurukshetra University, Kurukshetra (KUK), so students and faculty use University Library website.

**OBJECTIVES**

The present research survey was an attempt to gather information about the use of Internet & Search Engines by B. Tech Faculty and students of Swami Devi Dyal Institute of Engineering, Golpura, Barwala (HR.) India. The study was conducted with the following objectives:

- To identify the purposes for which Internet is used by the students and faculty members.
- To examine impact of Internet on various activities like teaching, research & learning.
- To find the frequency of Internet usage.
- To find the satisfaction level of respondents.
- To know the preferred document type used by the students and faculty members.
- To know their opinion regarding significance of library versus the Internet.
- To know the preferred information sources accessed by the students and faculty members.

**SCOPE AND METHODOLOGY**

The scope of study confines to the analysis of search engines use amongst the faculty members & B.Tech students. There were total fourteen faculties and ninety-five students of B.Tech 3rd year students in the institute. Questionnaire was prepared & distributed among them. The survey was designed to assess the skill levels and competency of the Faculty & Students at Swami Devi Dyal Institute of Engineering (SDDIE) at Golpura, Barwala (HR.) in use of search engines. Aspects including awareness of the different types of search engines, frequency and nature of use of search engines were also examined in study. The limitations of the present study are mentioned below:

- Only B.Tech 3rd year students were taken into survey.
- Only Computer Science Engineering (CSE) branch was covered under study.

The engineering institute under study was visited personally by the investigator to collect data from the respondents. The method of the research in this survey was through questionnaire. The questionnaire for Internet users was filled up by the teachers and the students of the engineering institute. A total sample of 14 teachers and 95 B.Tech students was taken up for the present study.

**DATA ANALYSIS AND DISCUSSION**

- **Frequency of Internet Use:**

**Fig 1 Frequency of Internet Use**

As indicated in fig 1, 46% of the students are using internet services daily, 33% of the students are using internet services 2-3 times a week, 15% students are using internet services 2-3 times a month and 6% students use internet services once in a month. As shown in the above figure, 79% of the faculty is using internet services daily and 21% of the faculty are using internet services 2-3 times a week.

- **Amount of Time Spent on Internet:**

**Fig 2 Amount of Time Spent on Internet**

Fig 2 shows that 25% of the students use internet services for 2-4 hrs a week, 23% students use internet services for 5-6 hrs a week, 18% students use internet services for 7-9 hrs a week, 17% students use internet services for 10-20 hrs a week, 10% of the students use internet services for 20 hrs a week and only 7% of the students use the internet services for less than 1 hour a week. The figure above also indicates that 50% of the faculty members use the internet services for 7-9 hrs a week, 36% use for 10-20 hrs and 14% for 5-6 hrs a week.

- **Method of Learning Internet Skill:**
Fig 3 Method of Learning Internet Skills: Students

Fig 3 shows that 48% of the students are self instructed for learning internet skills, 25% of the students got guidance from their colleagues, 13% of the students had trial and error method for learning internet skills, 10% of the students got training from their college for learning internet skills and only 4% had external courses.

- **Purpose of Browsing Internet:**

**Multiple Choice**

Fig 4 Purpose of Browsing Internet

Fig 4 reveals that 74 of the total number of students use the internet for job searching, 67 of the total number of students use entertainment services on the internet, 71 students use the internet for their education purpose, 66 students for communication and 40 students use for their research purpose. Almost all the faculty use internet for their research purpose, 9 faculty use internet for education, 7 faculty for entertainment and 3 faculty for communication purposes.

- **Satisfaction with Internet Facilities:**

As shown in the fig 5, it is clear that 62% of students are fully satisfied with the internet facilities, 36% are partially satisfied and 2% are least satisfied with the internet facilities.

It is also clear that 64% of faculty are fully satisfied with the internet facilities and 36% are partially satisfied.

- **Quality of Information on Internet:**

As indicated in the fig 6 above, 75(76%) students believe that the qualities provided by internet are very good and 20(24%) believe that the qualities provided by internet are excellent. The above figure also reveals that 10(71%) faculty members believe that the qualities provided by internet are excellent and 4(29%) faculty members believe that the qualities provided by internet are very good.

- **Internet can Replace Library Services:**

Fig 7 reveals that 57% of the total students believe that internet services can’t replace library services and 43% believe that internet services can replace library services. 71% of the total faculty believe that internet services can replace library services and 29% believe that internet services can’t replace library services.

- **Satisfaction of Results on Search Engines:**

As shown in the fig 5, it is clear that 62% of students are fully satisfied with the internet facilities, 36% are partially satisfied and 2% are least satisfied with the internet facilities.

It is also clear that 64% of faculty are fully satisfied with the internet facilities and 36% are partially satisfied.
Fig 8 Satisfaction of Results on Search Engines

Fig 8 above reveals that 43% each of the faculty are sometimes satisfied and always satisfied with the internet services and 14% can’t say whether they are satisfied with internet facilities or not. It is also clear that 41% of the students are sometimes satisfied and 27% are always satisfied with the internet services and 32% can’t say whether they are satisfied with internet facilities or not.

Help in Academics/Research Work:

Fig 9 reveals that 64% students believe that the Internet helps them significantly in their studies while supporting their various academic activities. In case of faculty members 21% of them opined that the Internet contribute them in their research work significantly while 79% faculty find the help of average level. No student or faculty felt that Internet did not help with their academic/research work.

Type of Information Accessed on Internet:

Table 1: Type of Information Accessed on Internet

<table>
<thead>
<tr>
<th>Type of information used</th>
<th>Students</th>
<th>Faculty</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abstracts</td>
<td>50</td>
<td>9</td>
<td>59</td>
</tr>
<tr>
<td>Articles</td>
<td>66</td>
<td>12</td>
<td>78</td>
</tr>
<tr>
<td>Articles in Press</td>
<td>66</td>
<td>14</td>
<td>80</td>
</tr>
<tr>
<td>Books</td>
<td>79</td>
<td>7</td>
<td>86</td>
</tr>
<tr>
<td>Company Homepage</td>
<td>74</td>
<td>8</td>
<td>82</td>
</tr>
<tr>
<td>Conferences</td>
<td>73</td>
<td>8</td>
<td>81</td>
</tr>
<tr>
<td>Patents</td>
<td>55</td>
<td>8</td>
<td>63</td>
</tr>
<tr>
<td>Pre -prints</td>
<td>59</td>
<td>8</td>
<td>67</td>
</tr>
<tr>
<td>Reviews</td>
<td>65</td>
<td>8</td>
<td>73</td>
</tr>
<tr>
<td>Scientist Homepage</td>
<td>70</td>
<td>5</td>
<td>75</td>
</tr>
<tr>
<td>Theses &amp; Dissertations</td>
<td>81</td>
<td>4</td>
<td>85</td>
</tr>
</tbody>
</table>

Multiple options
As indicated in the table 1, 81 students believe that thesis and dissertation searching facility is good for finding information, 79 students believe books, 74 students believe company homepage, 73 students believe conferences, 70 students believe scientists homepage, 66 students believe articles in press, 65 students believe reviews, 59 students believe Pre-prints, 55 students believe patents, 50 students believe abstracts are good for finding relevant information on internet. As indicated in the above table, 14 faculty members believe that article in press is good for finding information, 12 members of faculty believe Articles, 9 of the faculty believe in abstracts, 8 faculty believes company homepage, conferences, pre-prints, reviews and patents, 5 faculty believe scientist’s homepage, 4 faculty believe that thesis and dissertation searching facility is good for finding relevant information on the internet.

Fig 10 presents the usage of online resources together by the students and faculty members. It reveals that e-books are the most frequently used resources followed by theses and dissertations, company homepages, conferences and articles (including articles in press). The above figure also reveals that abstracts are the least consulted resources by the students and faculty members.

### File Type Accessed:

![File Formats](image)

**Fig 11 File Formats**

Fig 11 shows that for 32% students, document format to be immaterial. For them the document can be in any format. 26% students prefer DOC format, 22% want documents in PDF format and 10% students each use PowerPoint (PPT) and HTML. The above figure indicates that for 44% faculty members, document format does not matter, while 31% prefer HTML format, 19% prefer in PDF format, and 6% prefer DOC format.

### FINDINGS

- 46% of the students are using internet services daily. 33% of the students are using internet services 2-3 times a week. 15% students are using internet services 2-3 times a month. 6% students use internet services once in a month. 79% of the faculty are using internet services daily. 21% of the faculty is using internet services 2-3 times a week.
- 25% of the students use internet services for 2-4 hrs a week. 23% students use internet services for 5-6 hrs a week. 18% students use internet services for 7-9 hrs a week. 17% students use internet services for 10-20 hrs a week. 10% of the students use internet services for 20 hrs a week. 7% of the students use the internet services for less than 1 hour a week. 50% of the faculty members use the internet services for 7-9 hrs a week. 36% faculty use for 10-20 hrs and 14% for 5-6 hrs a week.
- 48% of the students are self instructed for learning internet skills. 25% of the students got guidance from their colleagues. 13% of the students had trial and error method for learning internet skills. 10% of the students got training from their college for learning internet skills. Only 4% of the students had external courses.
- 62% of students are fully satisfied with the internet facilities. 36% of students believe that the Internet helps them in their research work significantly while 79% faculty find the help to be of average level. No student or faculty felt that Internet did not help with their academic/research work.
- 57% of the total students believe that internet services can’t replace library services and 43% believe that internet services can replace library services. 71% of the total faculty believes that internet services can replace library services and 29% believe that internet services can’t replace library services.
- 43% of the faculty are both sometimes satisfied with the internet services and always satisfied and 14% can’t say whether they are satisfied with internet facilities or not.
- 64% students believe that the Internet helps them in their studies while supporting their various academic activities. In case of faculty members 21% of them opined that the Internet contributes them in their research work significantly while 79% faculty find the help to be of average level. No student or faculty felt that Internet did not help with their academic/research work.
- For 32% students, document format is immaterial. 26% students prefer DOC format, 22% want documents in PDF format and 10% students also use PowerPoint (ppt) and html. The results of the study indicates that for 44% faculty members document format does not matter while 31% prefer HTML format, 19% prefer in PDF format and 6% prefer DOC format.

### CONCLUSION

The fast growth of information and communication technology and particularly the Internet has changed traditional methods of research, storage, retrieval and communication of information. Now a day’s, internet has emerged as the most powerful medium for storage and retrieval of information. The Internet facility has enabled the teachers and students to enhance their academic excellence by providing them the latest information and access to worldwide information. The present study has highlighted the usage experience of the students and faculty members of the Swami Devi Dyal Institute of Engineering. It was discovered that
the uses of the Internet have positively influence the students’ and faculty members’ academic efficiency and requirements through access to relevant information. The Internet facility has enabled the teachers and students to enhance their academic excellence by providing them the latest information and access to worldwide information.

Librarians can play a crucial role in enhancing the academic usage of the Internet through their expertise in the collection, organization and retrieval of information on the library website in by adhering to subject approach to information to enable users in finding easily the information they need for their studies and research purposes. The library services supplemented by Internet services can prove a great boon to the users in getting the right information at the right time.

REFERENCES


