

# Analysis of Internet Use in Undergraduate Colleges of Mangalore

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## ABSTRACT

The advent of Internet and its resources have revolutionised the academic world. A significant transition can be seen in the academic communities approach and the way they seek information, and the methods they employ for teaching and learning activities. This paper is based on a research project, funded by the University Grants Commission, to analyse the patterns of use of Internet among the teachers and the students of the first grade colleges in Mangalore city. The study also investigated the level of academic community's access to the Internet, reasons for non-use of Internet, satisfaction with the Internet facilities provided in these institutions as well as the problems faced in the use of Internet.

A well structured questionnaire was distributed among the 390 teachers and students of the five colleges in the Mangalore city. Out of which 335 questionnaires were received back duly filled in. The response rate was 85.9 per cent. The study revealed that the level of student's access to the Internet was low and the major reason was that at the time of the study, computers with Internet facilities were inadequate. The findings also revealed that the rate of Internet use was more among the teachers and students of Commerce and Science faculty as compared to the faculty of Arts. However, majority of the students expressed their interest in the use of Internet and its resources and were enthusiastic in improving their skills in the use of the Internet. The study recommends the provision of more computers with Internet facilities, better access speed, and providing more orientation/training programmes in the use of Internet in these institutions.

**Keywords:** Internet, use pattern, first grade colleges, Mangalore

## 1. INTRODUCTION

In the era of networked information, Internet, the largest worldwide network of networks, has emerged as a powerful educational tool for an instant access to information. It has made a tremendous impact on the academic activities of the teachers and students. Information is just a 'finger touch' away from the user and it would not be inappropriate to say that the Internet has become the biggest global digital information library, which provides the fastest access to the right kind of information in nano-seconds to end user at any time and at any place in the world.

With the advent of Internet, a significant transition can be seen in the academic communities' approach and the way they seek information and the methods they employ for teaching and learning activities. This has become possible as Internet provides a wealth of current information and delivers text, graphics, images, audios and videos at the same time. It acts as a

powerful supplement to the traditional ways of studying and learning. The Internet can provide access to essentially unlimited resources of information, not conventionally obtainable through other means.

## 2. LITERATURE REVIEW

There have been a number of research studies on the use of Internet, especially in the developed countries. Some of these studies measure usefulness; some have focused on accessibility, while others have combined all these. A review of literature reveals that the teachers and students are the most frequent users of Internet. They use Internet for teaching, learning and for research purposes.

In the USA, several studies have been carried out addressing the issue of who uses the Internet and for what<sup>1</sup>. Other studies have focused specially on particular groups. For example some have focused on teachers and students. Becker<sup>2</sup> conducted a study on the Internet

use by 2250 teachers from public and private schools in the US. The study revealed that 90 per cent of the teachers had Internet access. A majority of the teachers (68 per cent) used Internet to find information resources for preparing their lessons.

A recent study by Asemi<sup>3</sup> showed that all the respondents were using the Internet frequently because all faculties were provided connection to the Internet. It was revealed that the students of the university were getting quality information through the Internet. Robinson<sup>4</sup> examined the Internet use among African-American college students. The respondents were surveyed by using the 43-item questionnaire to determine the frequency of Internet. The results of the study indicated that most of the African-American college students (76 per cent) had used the Internet for more than three years.

The use of Internet by most students was at school or at workplace with 49 per cent of the responses at home. They (47 per cent) spent an average of 2 hours per day online. 43 per cent of the students used Internet primarily to learn and find school resources. Adeyinka<sup>5</sup> conducted a survey of the undergraduates use of Internet and its implications on their academic performance at the University of Botswana. The results indicated that majority of respondents (66 per cent) accessed Internet 1-5 h per week. Moreover, most respondents used Internet for obtaining course-related information.

The results also revealed that Internet contributes significantly to academic performance of the respondents. Rajeev<sup>6</sup> studied the use of the Internet and the electronic resources among the dental science students and found that 56.8 per cent of the respondents acquired the skills to use Internet and the electronic sources via trial and error method, followed by guidance from friends and colleagues. E-mail was chosen as the most popular Internet service and majority were fully satisfied with the Internet and the electronic resources. Khare<sup>7</sup>, *et al.* conducted a survey to study the pattern of Internet use, satisfaction with the search results, etc. among the research scholars of the various faculties at H.S. Gour University, Sagar, M.P. The findings showed that the research scholars used Internet for research purpose, entertainment, as well as for job search.

Many studies on the use of Internet have been conducted, but few have focused on the academic community of undergraduate colleges. This study is therefore an attempt to investigate the use of Internet among the teachers and students of the First Grade Colleges of Mangalore city.

### 3. OBJECTIVES

The study was conducted with the following specific objectives:

- ✂ To study the use of Internet by the teachers and students in the degree college under study.
- ✂ To identify the different purposes of using Internet by the academic community.
- ✂ To identify the constraints encountered by the respondents while using the Internet.
- ✂ To assess the satisfaction level of the Internet facilities provided by the under graduate colleges under study.
- ✂ To suggest ways of providing better Internet services to the users.

### 4. METHODOLOGY

The five under graduate colleges of Mangalore city having arts, commerce, and science faculties were selected for the study and were visited personally by the investigator to collect data from the respondents. A total sample of 390, 120 teachers and 270 undergraduate students, was taken up for the study. For sampling, random sampling process was followed for data collection. The teachers and students were randomly selected, in equal proportion, from the science, humanities, and commerce faculties. Out of 390 questionnaires, 335 were duly filled and returned accounting to 85.9 per cent. The data collected from the teachers and students was further computed and interpreted using simple statistical techniques like frequency, percentages as well as other statistical tools such as weighted mean and standard deviation to analyse the data.

### 5. SCOPE AND LIMITATIONS OF THE STUDY

The research study is confined to the colleges in the Mangalore city having permanent affiliation from the Mangalore University all the combination of science, arts and commerce faculty. The following colleges were selected for the study:

- ✂ St Aloysius College
- ✂ St Agnes College
- ✂ Canara Degree College
- ✂ Beseant First Grade College
- ✂ University College, Mangalore

## 6. ANALYSIS

### 6.1 Characteristics of Study Population

Table 1 shows that more than one-third, 241 (71.9 per cent), of study population comprised students, and 94 (28.1 per cent) teachers. The respondents comprised 260 (77.6 per cent) females and 75 (22.4 per cent) males.

### 6.2 Internet Use

Table 2 shows that of the total 335 respondents, 270 used Internet. To ascertain the Internet use by the teachers and the students, a faculty-wise break up of the respondents is shown in Table 2. It shows that fluctuation in the use of Internet among different faculties. Nearly half (49.2 per cent) of the arts faculty did not use the Internet, while among the science faculty only 15.4 per cent of the respondents were non-users of the Internet. Among the Internet users, it was found that 39.3 per cent of the commerce faculty and 37 per cent of the science faculty were Internet users while only 23.7 per cent of the arts faculty were Internet users.

Sixty-five (19.4 per cent) respondents, who were not using the Internet were further queried to understand the

reasons for their not using the Internet (Table 3). Table 3 shows that 44.6 per cent of the respondents did not use the Internet because they needed training, 24.6 per cent had no interest in using it whereas 16.9 per cent were not using since the institution was not having proper Internet facility. Also, 9.2 per cent of the respondents did not feel its necessity and 4.62 per cent had other reasons such as language-related problems, etc.

### 6.3 Experience of Internet Use

Figure 1 shows that out of the 270 Internet users, more than one third of the respondents were using Internet for more than four years. Whereas 22.2 per cent of the academic community were using it for 1-2 years and 15.9 per cent were using Internet for 2-4 years. Rest of the respondents were using it for less than a year. The analysis indicates that half of the respondents were using Internet on an average for more than 2 years.

### 6.4 Frequency of Internet Use

To access the frequency of using the Internet services, the time was classified into four different categories: daily, 2-3 times a week, 2-3 times a month, and once in a month. It was found that 35.9 per cent

Table 1. Status and sex-wise respondents

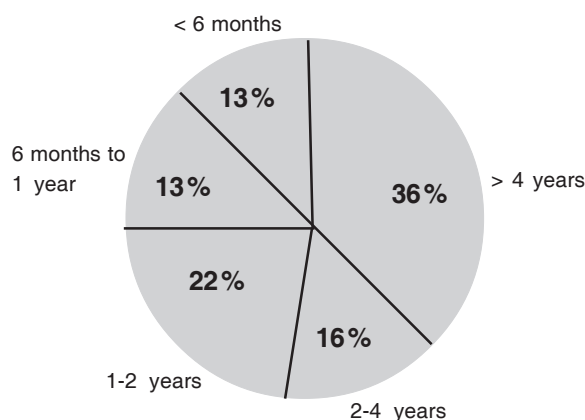
Status	No. of responses	Percentage	No. of male respondents	No. of female respondents
Teachers	94	28.1	33	61
Students	241	71.9	42	199
<b>Total</b>	<b>335</b>	<b>100.0</b>	<b>75</b>	<b>260</b>

Table 2. Faculty-wise break up of the respondents showing internet use

Faculty	No. of respondents using the Internet	No. of respondents not using the Internet	Total respondents
Arts	64 (23.7)	32 (49.2)	96 (28.7)
Commerce	106 (39.3)	23 (35.4)	129 (38.5)
Science	100 (37.0)	10 (15.4)	110 (32.8)
<b>Total</b>	<b>270 (100)</b>	<b>65 (100)</b>	<b>335 (100)</b>

Table 3. Reasons for not using internet by the respondents

Reasons for not using	No. of responses	Percentage
No interest	16	24.6
Need training	29	44.6
Do not feel it necessary	6	9.2
No proper Internet facility in the institution	11	16.9
Other reasons (e.g. language problem, etc.)	3	4.62
<b>Total</b>	<b>65</b>	<b>100</b>



**Figure 1. Experience of internet use.**

used Internet 2-3 times a week and an equal percentage (26.7 per cent) of the academic community used it daily and once in a month, respectively. The analysis clearly indicates that on an average majority of the respondents used Internet once in a week.

Access to and availability of personal computers (PCs) influenced the use of Internet. The respondents from the different institutions under study were not having common access point on campus for the use of Internet. The computer centres provided general access points for all the respondents, and to some extent the libraries in these institutions also offered a limited access. However, the students used multiple locations to access the Internet.

From the analysis it was observed that a majority of the respondents, i.e., 42.2 per cent accessed Internet at their homes, 39.7 per cent at the Internet Café and 33.7 per cent library to access the Internet. Only 11.9 per cent and 11.5 per cent used the computer laboratory on campus and 11.5 per cent of the teachers accessed the Internet at their departments.

## 6.5 Purpose of Internet Use

The Table 4 shows the different purposes for which the respondents used the Internet. Table 4 shows that 215(79.6 per cent) of the respondents used Internet 'to obtain course related information', 75.6 per cent used for preparing their seminar and assignments, 67.8 per cent for 'communication' mainly through e-mail, 47 per cent for 'chatting' with their friends and relatives and almost equal percentages (44.4 per cent, 43.7 per cent and 42.2 per cent) for 'News and Media', 'Social networking' and 'Games and Music', respectively. About 35.2 per cent used it for downloading software, 28.9 per cent for e-books and only 19.6 per cent for e-journals. It is encouraging to note that the respondents were making maximum use of the Internet and were aware of its benefits for educational purposes as well as other purposes.

**Table 4. Purposes for browsing internet\***

Purpose	Frequency	Percentage
To obtain course-related information	215	79.6
For seminar/ assignments	204	75.6
Communication (e-mail)	183	67.8
Chatting	127	47.0
News and media	120	44.4
Social networking	118	43.7
Games and music	114	42.2
Downloading software	95	35.2
e-Books	78	28.9
e-journals	53	19.6

*\*The respondents could answer more than one variable.*

## 6.6 Using Different Internet Services

Internet provides a number of services like e-mail, FTP, discussion groups, BBS, WWW, etc. Table 5 shows that majority of the users used e-mail (92.2 per cent), search services (90.7 per cent) as well as the WWW (81.1 per cent) respectively) while about 57.8 per cent use it for chatting and 26.7 per cent for frequently asked questions. Very few respondents use the Internet for BBS and discussion groups.

**Table 5. Use of internet services\***

Internet Services	Frequency	Percentage
E-mail	249	92.2
Search engines	245	90.7
WWW (world wide web)	219	81.1
Chatting	156	57.8
Frequently asked questions	72	26.7
File transfer protocol(FTP)	39	14.4
Telnet	32	11.9
Bulletin board services	24	8.9
List Serv/Discussion groups	23	8.5

*\*The respondents could answer more than one variable.*

## 6.7 Problems Encountered in Using Internet

The respondents were asked to state whether they faced any problems (constraints) while using the Internet. It was observed that, 76.3 per cent encountered difficulties while using Internet. In continuation of the query on whether they faced any problems in the use of the Internet, a list of nine problems was enumerated and the respondents were asked to record their level of barriers on a 'five-point scale'.

Mean value along with the standard deviation obtained for each of the barrier was calculated and given in the Table 6 in the descending order of the value.

**Table 6. Individual nature of problems with their respective ranks based on weighted mean**

Nature of constraints	Weighted mean ± Std. deviation	Rank based on weighted mean
Slow Internet access speed	3.50 + 1.457	1
Too long to view/download	3.46 + 1.334	2
Electricity failure	2.77 + 1.440	3
Difficulty in finding relevant information	2.73 + 1.415	4
Limited number of computers	2.66 + 1.509	5
Important sites in subject area not known	2.49 + 1.401	6
Time slot insufficient	2.42 + 1.477	7
Internet connectivity always off	2.42 + 1.444	8
Poor computer using skills	2.29 + 1.436	9

'Slow Internet access speed' was indicated as the most severe barrier faced by the respondents (mean value: 3.50) followed by 'too long to view/download' (mean value: 3.46). 'electricity failure', 'difficulty in finding relevant information', and 'limited number of computers' were all rated above the midpoint (2.5) of the scale reflecting other major problems while using the Internet.

## 6.8 Need for Improving Skills Using Internet

Further the respondents were asked to respond if they would like to improve their skills in the use of the Internet. Vast majority (90.45 per cent) of the respondents expressed their willingness to improve their skills in the use of the Internet.

## 6.9 Satisfaction with the Internet Facilities Provided by the Institution

When the respondents were queried regarding their satisfaction with the Internet facilities provided in their institutions, 47.8 per cent i.e. nearly half of the respondents opined that they were partially satisfied while 18.1 per cent were least satisfied. Only 16.7 per cent were fully satisfied with the Internet facilities provided in their institutions.

## 7. CONCLUSIONS

Based on the findings of the study, the following suggestions are recommended to improve the use of Internet among the teachers and the undergraduate students of the Mangalore city colleges:

- ✂ There is a need for extensive training programme organised at regular intervals so that all categories

of users can improve their proficiency in the use of the Internet.

- ✂ The Internet and allied technologies should be included in the curriculum.
- ✂ More computers with latest specifications are required in the library as well as the computer centre.
- ✂ To solve the slow downloading problem, the colleges should acquire high speed Internet connection with maximum bandwidth.
- ✂ Information regarding the popular and the latest websites with their addresses should be displayed on the notice board in the library and in the computer centre.
- ✂ Printing facility should be provided so that the users can get printout of their study materials and other important documents.
- ✂ The Internet facility should be familiarised to all.

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