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USE OF INTERNET FOR RESEARCH AND EDUCATIONAL ACTIVITIES BY RESEARCH SCHOLARS: A STUDY OF D.S.B. CAMPUS OF KUMAUN UNIVERSITY-NAINITAL

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ABSTRACT
Information has been playing a vital role in present era. After the creation of internet, it is growing day by day, covering all the fields related to knowledge. It would be helpful for learners to gain information. This study helps us to know about the importance of current and accurate information in one's respected field and by what other ways it would be beneficial for their purposes and does internet be allowed as a major source of organized information source for education. The internet has become an important component in the academic institutions as it plays a pivotal role in gathering information and communication needs of institutions and individuals. It has been finds out in the present study that the majority of students (92.30%) have good using internet exposure.

KEYWORDS: Communication, Information and Technology, Internet.

INTRODUCTION
The global communication system that connects millions of users is becoming hard to ignore. Internet is truly emerging as a powerful medium for obtaining information on a verity of subject published on-line. It is perhaps the most useful source for obtaining the latest information, which may otherwise still be month away to appear in the print form. Internet through its open standard has set the foundation for global communication. It provides access to resources that millions of computer users enjoy today. It is commonly said that any system can prove to be only as good as the manner of its use and its upkeep. It is evident that internet has all the potential of changing the face and dimensions of education and learning. The use of internet will eventually promote the transfer of information ensuring the better utilization of resource and satisfying the need of clientele across the world. Thus internet is trying to open a new era of globalization of information with more wide cooperation for resource sharing.

The origins of the internet can be traced to the creation of ARPANET (Advanced Research Project Agency Network) as a network of computers under the auspices of the U.S. Department of Defense in 1969. Today the internet connects millions of computers around the world in a non-hierarchical manner. The internet is a product of the convergence of media, computers, and telecommunication. It is not merely a technological development but the product of social and political processes as well, involving both the academic world and the government (the department of defense). From its origins in non-industrial, non-corporate environment and in a purely scientific culture, it has quickly diffused into the world of commerce. While the internet has had a sudden and dramatic impact on the global economic and social order, it took almost 30 years to emerge as a major technological force. The internet is a combination of several media technologies and an electronic version of newspapers, magazines, books, catalogs bulletin boards, and much more. This versatility gives the internet its power. However, it is difficult to make precise predictions about the success of the internet because of the complicated relationships it has created among technologies, markets, and political systems. Contributing to the development of the internet was a wide variety of users who adopted the internet to communicate among themselves in a semiprivate way. These users were not bound by any customs and practices, but initiated a culture of communication that was flexible, quick, unbounded, and non-hierarchical, where there was no superior authority in control of the communication system and no standards to govern performance. The internet has grown dramatically since about 1988, although its impact was not felt until about 1995 by mid-2000, and the estimates of the number of connected computers were around 80 million.

Table 1: Internet World Statistics Report

World Regions	Population (2012 Est.)	Internet Users Dec. 31, 2000	Internet Users Latest Data	Penetration (% Population)	Growth 2000-2012	Users %
Internet Users by World Regions - June 30, 2012						
Africa	1,073,380,925	4,514,400	167,335,676	15.6 %	3,606.7 %	7.0 %
Asia	3,922,066,987	114,304,000	1,076,681,059	27.5 %	841.9 %	44.8 %
Europe	820,918,446	105,096,093	518,512,109	63.2 %	393.4 %	21.5 %

Middle East	223,608,203	3,284,800	**90,000,455**	40.2 %	2,639.9 %	3.7 %
North America	348,280,154	108,096,800	**273,785,413**	78.6 %	153.3 %	11.4 %
Latin America / Caribbean	593,688,638	18,068,919	**254,915,745**	42.9 %	1,310.8 %	10.6 %
Oceania / Australia	35,903,569	7,620,480	**24,287,919**	67.6 %	218.7 %	1.0 %
WORLD TOTAL	**7,017,846,922**	**360,985,492**	**2,405,518,376**	**34.3 %**	**566.4 %**	**100.0 %**

Source: Internet World Stats, estimates for June 30, 2012. Notes: a) Population data comes from the US Census Bureau; b) Internet estimates come from ITU, Nielsen Online, GfK, official telecommunications regulating agencies and other trustworthy sources; c) Mexico is included in Central America and Turkey is included in Europe, according to the United Nations grouping.

From the above table it has been find out that on December 31st, 2000, the number of internet users was 36,09,85,492 and in the year 2012 it was 2,20,55,18,376 which is 566.4 % more than as compared to the number of users in the year 2000. Thus, it can be said that there is remarkable increase in the number of internet users in the era of information and communication technology. The above growth indicates that how fast the user has increased and the only reason of this increase is that internet offers so many services to its users. It also indicates that how fast internet has changing itself according to the need of the users. Most educators believe that using internet can help them to create an individualized and interactive learning environment, which can make learning more effective and efficient. Internet gave opened opportunities for life–long learning. Prospective can use a search engine to easily find non-credit courses and tutorials for a wide range of topics, including pottery, dog grooming, radio astronomy, desktop publishing, and drumming in a society that promotes learning as a life endeavor. The internet has certainly made it possible for students of all ages to pursue knowledge and skills simply by using internet. It grows rapidly because of information's availability on it. There are many services available on the internet, and for proper use of internet these services are also helpful, not only for a common user but also for research scholars. One reason for its growth and popularity is that the users can access up-to-date and pin pointed information with the help of these services in minimum cost than printed documents.

Use of Internet for Research and Educational Activities
The ever increasing bulk of recorded information available on internet in electronic form, book form or non-book form or together with satellite date has created a formidable phenomenon called 'Knowledge or Information Explosion' or more appropriately, 'Information Revolution'. Under the circumstances, researcher find themselves at their wits end to know what is published where in their own areas of interest and how to gain access to required piece of information pin pointedly, exhaustively and expeditiously. Inadequacy of traditional methods of information handing have recently led to the growing use of computer and communication technologies in the storage and retrieval of information and its communication through various networks at local national and international level. In fact, the traditional view of the library, as a store of information held locally, is being eroded, as the library is becoming a gateway to information resources worldwide. The resources of such libraries are available in digital form and can be accessed from any corner of the globe through the internet etc. These advances have not only revolutionized the discipline but also compelled the researchers, library professionals and I.T. professionals to equip themselves with the latest information and communication technologies. The internet is more effective, useful and informative and it provides a lot of information in less time with low cost. The Research scholars also find it helpful to browse e-books, e-journals and research papers, which could be downloaded at faster rate.

D.S.B. Campus (Kumaun University): An Overview
Kumaun University was established in 1973, under the act number (10)/8651/15/75(85)/64 in the year 23 November 1973 of Uttar Pradesh Government. Presently the university has three campuses. One is S.S.J. Campus Almora and second is D.S.B. Campus, Nainital & Kumaun University campus Bheemtal. Educational program of university is divided into seven departments. These are Arts, Commerce, Science, Law, Education, Medical Education, Mechanical and Engineering Education Departments. The second campus of university is known as D. S. B. Campus, Nainital. This campus is established by the charitable quality of Thakur Dan Singh Bisht and Chief Minister, Pt. Govind Ballabh Pant's inspiration on 19th July, 1951 in Vallajaly School building as D.S.B. Govt. College. University has a wide computer network of around 250 nodes at its campus at Nainital.

LITERATURE REVIEW
Pangannaya (2000) conducted a study on "Use of Internet by the Academic Community: a case study." The present study is an attempt to investigate the use of internet resources by the academic community of Mysore University, using survey as the research tool. The paper has investigated the faculty wise frequency and length of use of the internet.
Darries (2004) discusses issues related to Internet-based reference. An electronic survey was conducted using the web and e-mail to distribute the questionnaire. The target population was the heads of reference services at large libraries and the directors at smaller libraries of the 36 higher education institutions in South Africa. These results showed that all libraries surveyed have internet access, and all but one provided access to their users. It has been find out in the present study that librarians had access to the internet for a longer period than their users.

Mulimani and Gudimani (2008) conducted a study on Usage of Internet by Students and Research Scholars of Karnatak University Library: A Survey. In the present study they find out that in the IT era, academic libraries and information centers have radically changed the information environment. The aim of this survey is to understand student's usage of Internet and computer technology, their experience with technology and their aptitudes and expectation about technology resources and identify areas for improvement of services.

Khan (2012), conducted a study on "Use of Information Sources by Faculty Members, Research scholars and Students of the Faculty of Commerce, AMU, Aligarh: A Survey" The purpose of this study is to find out the level of use of information sources by faculty members, research scholars and students of the faculty of commerce, AMU, Aligarh. The survey reveals that the maximum number of Faculty Members as well as Research Scholars uses Journals for getting their required information, while Students prefer general books for getting their required information.

Need and Scope of the Study
Use of internet by research scholars is an important area of study on today's information environment. Internet exists to serve the need of the researchers. In order to fulfill the needs of the research scholars, internet is support to access different kinds of web based sources & services. The present study demonstrates and elaborates the various aspects of internet usage like sources of getting information about internet websites, favorite search engines and problem faced by the users in surfing the internet, satisfaction level with use of internet for research purpose and various facilities available on the internet for research scholars. The findings of such a study may be taken into consideration in the university plans for effective and efficient use of internet for research work and simultaneous improvement of electronic information resources of its libraries. This study confined to study the use of internet for research and educational activities by the research scholars of D.S.B. Campus of Kumaun University, Nainital.

OBJECTIVES OF THE STUDY
The main objective of the study is to analyze the use of the internet by the research scholars of D.S.B. Campus of Kumaun University. The objective has been studied with the help of following sub- objectives spelt out as under:
- to study the purpose of using internet.
- to identify the popular sites used by research scholars and also the awareness of research scholars in using internet resources.
- to study the problems faced by the researchers while using internet.

RESEARCH METHODOLOGY
The above objectives have been studied through the use of primary as well as secondary data. In the light of objectives set forth the information has been collected from various research scholars. The primary data has been collected from various research scholars with the help of questionnaire. A questionnaire is prepared and used as a tool for collecting the data. The important step in this method is to take care in the design of questions. This method consists of a careful translation of the objectives of survey in a set of questions, which may ask for to know the opinion of users. The questions are framed in such a way that the relation of one question to another and can be readily apparent to the respondents.
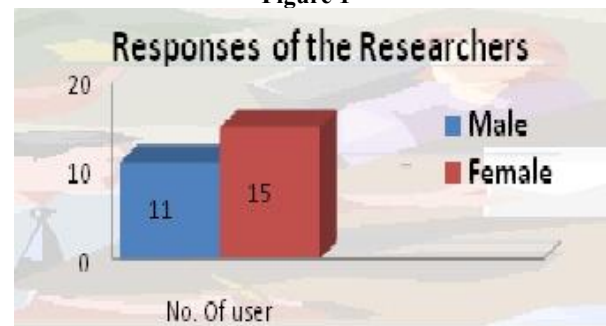
RESULTS AND DISCUSSION
The study analyzed the use of internet for research activities by the research scholars of D.S.B. Campus of Kumaun University, Nainital 26 well–structured questionnaires were distributed among research scholars at the D.S.B. campus Kumaun University. The 26 questionnaires were received and analyzed.

Table 2: Classification of Researchers on the Basis of Gender

Sex	No. of Users	Percentage
Male	11	42.31%
Female	15	57.69%
Total	26	100%

Figure 1

From the above table 2 it has been find out that 26 questionnaires are distributed to the researchers and out of 26 researchers, 11 are male researchers and 15 are female researchers. The percentage of male researchers is 42.31 percent, which is less than the percentage (57.69%) of female researchers. It shows that female researchers are more aware about their research work as compared to the male researchers.

Table 3: Users of Internet

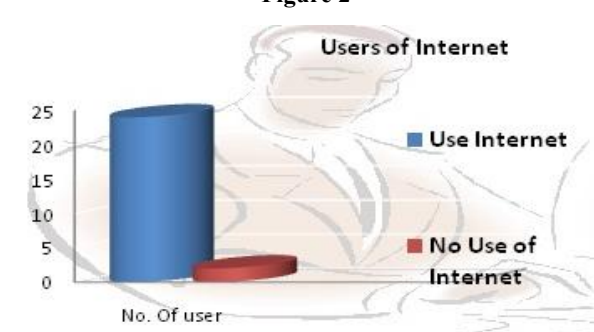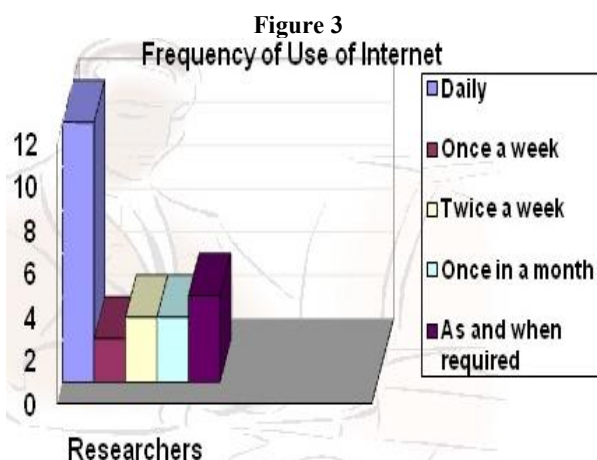| Users of Internet	No. of Users	Percentage
Use Internet	24	92.30%
No Use of Internet	2	7.69%

Figure 2

Table 3 shows that only 7.69% of the researchers are not using internet for their research purpose, which is good by keeping in view the Indian scenario and world scenario of internet users. It has been also find out that campus research scholars are aware about the advantages of use of internet. Those who are not using the internet for their research work have given the reason that they do not feel it necessary in their concerned subject.

Table 4: Frequency of Use of Internet

Frequency of Use	Researchers	Parentage
Daily	12	50%
Once a week	2	8.3%
Twice a week	3	12.5%
Once in a month	3	12.5%
As and when	4	16.67%
Total	24	100%

Figure 3

In order to assess the frequency of using internet services, the research scholars were asked to indicate any one category out of five categories of time lag. It has been find out that 50% of researcher uses the internet daily, 12.5% use it twice a week, 12.5% use it once in a month, 8.3% use the internet once a week and 16.67% use the internet when required. Thus it can be said that the number of daily user of internet is more as compared to the users who uses internet once or twice in a week.

Table 5: Users of Internet Browsers

Browsers	No. of Researchers	Percentage
Only Internet Explorer	13	50
Mozila Firefox + Internet Explorer	7	26.92
Mozila Firefox + Internet Explorer + Opera	4	15.38
Netscape Navigator	0	0

It appears from the table 5 that the internet explorer has been chosen as the most popular browsers with 50% response, followed by Mozila Firefox + Internet Explorer with 26.92% response. Only 15.38% researchers are using Mozila Firefox + Internet Explorer +opera. It has been find out in the present study that internet browsers Netscape Navigators are not use by any of the researchers

using internet. On the other hand 24 (92%) researchers are selected in the present study.

Table 6: Purpose for the Use of Internet

Purpose for the Use of Internet	Users	% (Out of 26)
Search for Research Material	24	92.31
Searching Database	24	92.31
Searching Cataloguing Library	18	69.23
Accession e-Documents	15	57.69
Accession e-Journals	20	76.92
e-mail	22	84.61
Visit web-site	22	84.61
For Entertainment, Fun, Play Games	15	57.69
Career Information	22	84.61
Tele-conferencing	5	19.23
On-line learning	13	50.00
Chatting	17	65.38
Downloading programs/files	20	76.92
View Movies	7	26.92
Not Access the internet	2	7.69

The researchers were asked to indicate their purpose for using the internet. It is evident from table 6 that 92.31% of the researchers use the internet primarily for the research purpose & searching database and, followed by 69.23% researchers for the searching cataloguing library, 57.69% for accession e-documents, 76.92% for accession e-journals, 84.61% for e-mail, 84.61% for visit web-site for entertainment, fun, play games, 84.61% for career information, 19.23% for tele-conferencing, 50% for on-line learning, chatting, 76.92% for downloading programs/files, 26.92% for view movies. Hence it can be inferred that a majority of research scholars use the internet for their educational purposes**.**

Table 7: Use of Information

Particulars	Percentage
View in the Monitor	44.66
Download the Information	33.75
Take a Print Out	21.58
Total	100

It appears from the table 7 that the 44.66% researchers are interested in viewing the information in the monitor, and 33.75% researchers downloaded the information for their further use. Only 21.58% researchers take a print out of the information by using the internet. According to them print out is useful for the use of information in the future.

Table 8: Training of Researchers for the Use of Internet

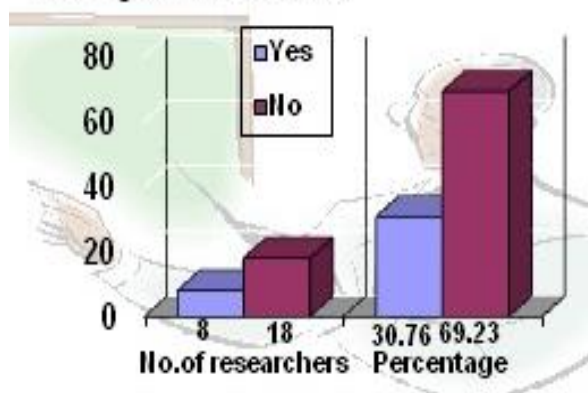| Responses	No. of Researchers	Percentage
Yes	8	30.76
No	18	69.23
Total	26	100

Figure 4

Table 8 shows that the 69.23% research scholars are not taking training for the use of internet; only 30.76% researchers are taking training for using internet. On the basis of the above analysis it can be said that to update with all the features of the internet research scholars have to be trained regarding all the latest features of internet which would be helpful in their research.

Table 9: Need of Training for Researchers for the Use of Internet

Responses	No. of Users	Percentage
Yes	13	50
No	13	50
Total	26	100

It appears from table 9 that only 50% researchers are aware about the use of internet and they also wanted to be trained about the latest features of internet. Thus it can be said that it becomes the duty of the parent institutions to provide them training regarding the latest features of internet.

Table 10: Search Engine Use by Researchers

Search Engine	No. of Users	Percentage
Only Google	6	23.07
Google + yahoo	14	53.84
Google + Yahoo +MSN	2	7.69
Google + Yahoo +MSN + search .com	1	3.84
Google + Yahoo + search.com	1	3.84
Any other	0	0
Researchers who are not using Internet	2	7.69

Internet search is a fast and easy method of information retrieval. Research scholars use different type of search engines to retrieve the required information. Table 10 shows that 23.07% researchers use the Google search engine to access the information on the internet, 53.84% use both Google and Yahoo, 7.69% use Google, Yahoo and MSN, 3.84% use Google, Yahoo, MSN and

search.com and other. Thus it can be said that Google and Yahoo are the most popular search engine among the research scholars.

Table 11: Email Service Use by Researchers

E-mail Service	No of Users	Percentage
Yahoo	4	15.38
G-mail	8	30.76
G-mail +Yahoo + Rediffmail	8	30.76
G-mail +Yahoo	2	7.69
Rediffmail+ Yahoo	1	3.84
G-mail+ Rediffmail	1	3.84
Researcher who are not using Internet	2	7.69

Table 11 shows that G-mail is most preferred service provider for email service. 30.76% researcher are using G-mail service   followed by Yahoo with 15.38%, and 30.76% researcher use G-mail , Yahoo and Rediffmail, 7.69% are using G-mail and Yahoo,

Table 12: Awareness and Use of Virtual Library

Responses	No. of Users	Percentage
Yes	19	73.07
No	7	26.92
Total	26	100

Table 12 shows that majority of the researchers (73.07%) are aware about the use of virtual library. Only 26.92% researchers are not aware about the use of virtual library. It shows that the majority of researchers realized the importance of virtual library in their research.

Table13: Awareness of Researchers Regarding Use of Website

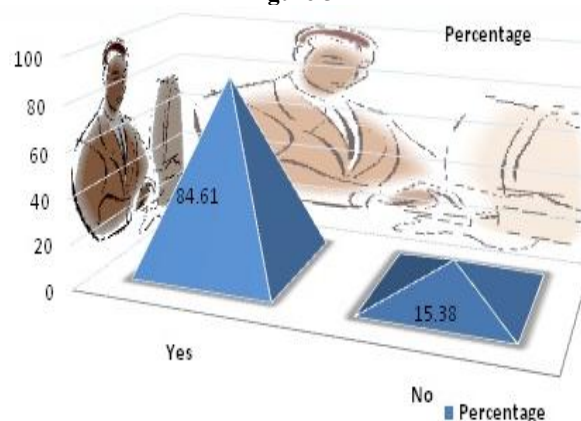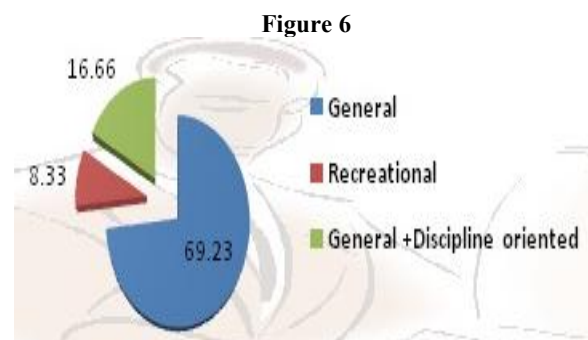| Responses	No. of Users	Percentage
Yes	22	84.61
No	4	15.38
Total	26	100

Figure 5

Table 13 shows that 84.61% researchers are aware about the use of website for their concerned research. Only

15.38% researchers are not aware about the use website during their research work. It shows that the popularity of the internet is increasing among the research scholars.

Table 14: Mostly Used Website by the Researchers

Website	No. of Users	Percentage
General	18	69.23
Recreational	2	7.69
General +Discipline Oriented	4	15.38
Researcher who are not using Internet	2	7.69

Figure 6

In the present study researchers were asked to indicate their purpose for mostly used website by them. It is evident from table 14 that 69.23% researchers use general website only, followed by general and discipline oriented, 8.33% use recreational website. Hence it can be inferred that a majority of the researchers use the website for educational purpose.

Table 15: Reasons for not Using Internet by the Researchers

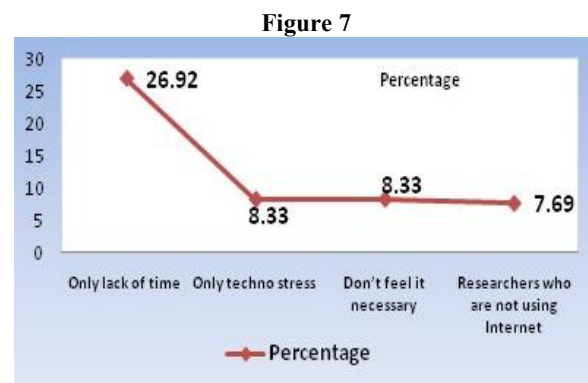| Reasons	No. of Researchers	Percentage
Only Lack of Time	7	26.92
Only Techno Stress	2	8.33
Don't Feel it Necessary	2	8.33
Researchers Who are not Using Internet	2	7.69

Figure 7

Table 15 shows that 7.69% research scholars don't use the internet because they have no technical Know-how about the internet, and those who are using internet as once in a month are 26.92%. They reported that due to lack of time they are not using the internet regularly. 8.33% researchers do not feel its necessity and 8.33% are not using internet frequently due to techno stress.

Table 16: Preference of Languages by Researchers

Languages	No. of Researchers	Percentage
Hindi	7	26.92
English	17	65.38
Hindi + English	2	7.69

Table 16 shows that majority of researchers prefer English language for reading material available on internet. According to them majority of the journal, articles and other information are available in English language on internet. Moreover English language is the worldwide popular language. Only 26.92% prefer to Hindi language and 7.69% researchers prefer both Hindi and English language.

Table 17: Problems Encountered by Researchers

Problems	No. of Researcher	Percentage
Difficulties to find exact web pages	6	23.07
More time for view/download	4	15.38
More time for view/download + Difficulties to find exact web pages	6	23.07
Difficulties to find exact web pages +Links not working	4	15.38
Search engine coverage is incomplete	2	7.69
Difficulties to find exact web pages +Links not working +More time for view/download	2	7.69
Researcher who are not using Internet	2	7.69

It can be inferred form table 17 that the most common problem faced by the researchers while using internet is difficulties in finding the exact web pages. Other important problem faced by the researchers is longer time to view or downloading web pages. According to 7.69% researchers search engine coverage is incomplete and 15.38% researchers reported difficulties in finding exact web pages and linkages problems.

CONCLUSION

The internet has become an important component in academic institutions as it plays a pivotal role in gathering information and communication needs of institutions and individuals. Internet makes it possible to access a wide range of information, such as journal article, papers etc. from anywhere in the world. It also enables scholars and academic institutions to disseminate information to a wider audience around the globe. Although internet is being widely used by the research community of the University, there is a need to provide training on the use of internet so that the researchers use the appropriate search

tools and techniques than just relying on popular search engines and elementary search techniques to obtain information. The university library can play a proactive role by providing the requisite training to the researchers to better equip them with the requisite skill sets for more efficient searching. Bandwidths should be increased in order to provide faster access that will save much of the users' time and be a source of motivation to use the internet. The very low bandwidth during peak hours sometimes makes it impossible to download files or software. The university library should gear up to provide extensive training program to the students from post-graduate level, which will help to build a strong team of researchers. The present study has shown that internet has a wide range of uses for the students and researchers in the field of science. It has been find out in the present study that the majority of students (92.30%) have good using internet exposure. Users have almost generally opined that internet was more beneficial than conventional documents. Free access to internet provided by the university has improved the academic efficiency of the researchers to a great extent. The level of satisfaction of the users is not high mostly due to the time constraints, which is exacerbated by the slow internet connectivity and lack of exposure to find out information quickly. Hence, regular training on effective use of internet coupled with the ensured speed of connectivity and its decentralization may solve most of the existing problems of internet use at university campus.

Based on the findings of the study, the following suggestions are made to improve the use of internet among the research scholars in the campus. Necessary efforts are to be made to propagate the availability of internet, its services, tools and products to have its full benefits so that users can avail such facilities. Use of computers in information storage, retrieval and dissemination need to be popularized by university to facilitate access to global information. Thus, to improve the excellence or proficiency of research scholars in the use of internet for academic and research purpose following suggestions must be adhered to:

1. University library should provide online facilities like OPAC, SDI etc, and in addition to these facilities, some e- journals and electronic database should also be subscribed in the campus library.

2. More computers with latest specifications and multimedia kit should be installed, so that the users could avail useful services of the Internet.
3. Capacity of servers should also be increased and firewalls should be installed for protection from viruses.
4. Information regarding popular and latest websites with their URLs should be displayed on the notice board.
5. More net connected computers with latest specifications and multimedia kit should be installed so that the students can avail the useful services of the Internet.
6. The teacher's rooms should be equipped with internet connections so that the students can get instant help from the teachers in academic and research matters.
7. Efficient technical staff should be provided to guide the students properly.
8. Short-term courses, orientation/ training programmes should be organized at regular intervals so the students can improve their excellence or proficiency in the use of internet for academic and research purpose.

REFERENCES

Darries, Fatima (2004), "Internet access and use in reference services in higher education institutions in South Africa", South African Journal of Library and Information Science, Vol. 70 No. 2, pp. 72-85.

Khan, Abdul Mannan, (2012), "Use of Information Sources by Faculty Members, Research scholars and Students of the Faculty of Commerce, AMU, Aligarh: A Survey", Library Philosophy and Practice (e-journal), Paper 782.

Mallikarjun N Mulimani Suresh B Gudimani (2008), International CALIBER-2008, 6th International CALIBER-2008, University of Allahabad, Allahabad, February 28-29 & March1, © INFLIBNET Centre, Ahmadabad.

Pangannaya, N.B. (2000), "Use of Internet by the Academic Community: a case study", DRTC Annual Seminar on Electronic Sources of Information, (1-3 March: Bangalore)