USE OF INTERNET IN HIGHER EDUCATION: A SURVEY OF FACULTY MEMBERS OF ALIGARH MUSLIM UNIVERSITY

*P.M.Naushad Ali
&
*Mohammad Javeed

ABSTRACT

The paper examines the use of Internet by the faculty members of Aligarh Muslim University, Aligarh, India. The study includes search behaviour and difficulties confronted by the faculty members while browsing Internet and opinion about available Infrastructure facilities in the university etc. Printed questionnaires were administered among faculty members of all departments in AMU, Aligarh. The result of the study shows that E-mail and World Wide Web are the most used Internet services besides a good number of users facing difficulties while searching especially those accessing from respective departments. The majority of users are not satisfied with the infrastructure facilities of the university for the service. The paper presents several suggestions for the further improvement of the services.

KEYWORDS Web Resources; Internet Use; e-Journal use.

INTRODUCTION

The Web, popular for its rich resources and a powerful means of information, helps faculty members enormously in their pedagogy and research activities. The networking of people through innovative communication and computer technologies is creating limitless opportunities for accessing all available forms of information, social learning and intelligence.

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* P M Naushad Ali Reader, Department of Library Science, AMU Aligrah (UP) And Mohammad Javeed Librarian, Lord Budha Medical College & Hospital, Azimgarh (UP)

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The Aligarh Muslim University is a residential academic institution. Sir Syed Ahmed Khan, a great reformer of his age, felt the need for modern education and started a school as far back as 1875, which later became a college known as the Mohammedan Anglo Oriental College. The college ultimately became in 1920, a university of international repute with a number of modern and traditional faculties. The Aligarh Muslim University has more than 27,000 students on its rolls and employ more than 1500 faculty members. A.M.U got Internet connectivity about 12 years back at computers centre of the university. Students, research scholars, faculty members and other staff members are browsing Internet regularly from computer centre free of cost. A.M.U has more than 90 postgraduate departments; conduct postgraduate studies, offer Phil and Ph.D. Internet facility to the departments is also made possible through telephone cables via modems. Presently more than 50 departments have their computers connected to the computer centre through PABX system and are making use of Internet and Email from their department. The university has already started connecting departments via campus network through fiber optic cables. First phase of this project is complete and will facilitate further use of Web Resources by scholars.

LITERATURE REVIEW

Use of Internet/WWW is a widely discussed area among library professionals but most of the material is scattered in books, journals articles and proceedings published both in print and electronic format. However works especially on use of Internet by faculty members is surprisingly small in number **(Lazinger et.al, 1997).** The survey by **Adam and Bonk (1995)** reports that Internet connectivity is higher among faculty in sciences than in social sciences or humanities and only 55.4% of faculty members in the Humanities have a computer facilities in their offices, while nearly 85% of faculty in the social sciences and over 90% of faculty in the sciences and professional schools have sufficient computers. In the same manner, **Chu (1994)** states that more scholars in the fields of Mathematics, Computer and Information Sciences, Biological Sciences, and Physical Sciences use

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Email than in Humanities, Social Sciences and other Professional fields.

University Professors from Yemen state that their teaching methodologies have improved and they are able to present more up-to-date information to their students. **(Jirjees & Al-Sanabani, 1995)** A study conducted earlier at Aligarh Muslim University reveals that World wide web and E-mail are the most used internet services by the users of AMU and a large number of internet users are not satisfied with infrastructure facilities available in the computer center like number of nodes, printing, multimedia facility etc.(**Ali,2000)**. Result of the study of **Lazinger, Bar-llan and Peritz (1997)** indicate that internet use is consistently higher among faculty members in the Sciences and Agriculture than among those in the humanities or social sciences suggesting that among other things the connectivity level of the Humanities or Social Sciences group may be lower than that of the Sciences and Agriculture group. **Voorbij (1999)** examines the use and perceived importance of internet amongst academics in the Netherlands. The majority of the members of the academic community of Netherlands is using the Internet for study or work related purposes. E-mail is the most popular facility and the World Wide Web is being used primarily to search factual and specific information. Major reason for not using the Internet by faculty members is lack of skills.

A questionnaire and telephone and face to face interviews were used by **Hines and Willet (1995)** to know the use of www in UK libraries which reveal that the largest application of such system in academic libraries is the use of the World Wide Web for networked document retrieval such as data security and integrity. The survey identifies several general problems. There are a few servers that maintain an HTTP link to their library OPAC and allow searches to be conducted among the catalogue records without users having to negotiate separate protocols.

PURPOSE

Major objective of the study are i) to know how well and widely the Internet is used by faculty members of AMU ii) To determine the different advance search facilities used by the users iii) To identify the most frequently used search engines/popular web sites iv) To assess the

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purpose of using internet v) To find out difficulties they have encountered when using various internet services VI) To understand the opinion of faculty members about staff members of computer centre of AMU and vii) To examine the satisfaction levels of faculty members regarding infrastructure facilities available in university.

DATA COLLECTION

The tools used for study are questionnaire, observation and interview. The Telephone Directory of teaching & administrative staff of Aligarh Muslim University 2002-2003 was used for identifying names, and departmental addresses of the faculty members. The questionnaire consisted of 3 sections with 26 questions. A total of 350 questionnaires were administered to faculty members of various departments of AMU, Aligarh. It covered 26.92% of total population of the faculty following stratified random sampling. 265 questionnaires were received duly filled in, making response of 75%. The investigators conducted short interviews with select faculty members. Beside these investigators observed over all services and facilities available in the campus.

Table 1
Response of the Questionnaire
(Designation wise)

S.No.	User's Designation	No. of Questionnaire Administered	No. of Responses received
1	Professors	100	60 (60)
2	Readers	100	80 (80)
3	Lecturers	150	125 (83.33)
4	Total	350	265 (75)

*Figures in parentheses indicate percentage

RESULTS AND DISCUSSION

The main aim of the study is to know the trend and nature of Internet use by the faculty members of AMU. The opinion of 265

faculty members (60 professors, 80 Readers and 125 Lecturers) is represented in the study.

Table 2

Objective of using Internet service

S. No.	Purpose	No. of Respondent			Total responses
		Prof./60	Reader80	Lect./125	
1	For e- mail	20(33.33)	16(20)	50(40)	86(32.45)
2	For study /research	16(26.66)	30(37.5)	30(24)	76(28.67)
3	For teaching	14(23.33)	20(25)	25(20)	59(22.26)
4	For career development	10(16.66)	14(17.5)	20(16)	44(16.60)

*Figures in parentheses indicate percentage

It is clear from the analysis that 86(32.45%) faculty members are using Internet for facilitating mail while 76(28.26%) faculty members browse Internet for the study/research purpose. However 59(22.26%) faculty members use Internet for the teaching while chosen few use Internet for career development. It is interesting to note that majority use it for E-mails.

FREQUENCY OF USE

The analysis shows frequency of using internet services during a day. It reveals that 78 (29.43%) faculty members use internet, fifteen minutes to one hour in a day and 36.98% of faculty members browse internet 1-2 hours per day, while 17.73% users make use Internet for less than fifteen minutes and 12.07% and 3.77% of users using internet for more than two to four hours and for more than four hours per day respectively.

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Table 3
Frequency of Use

S. No.	Timing	No. of Respondents			Total responses
		Professors (n=60)	Readers (n=80)	Lecturers(n=125)	
1	Less than 15 minutes	7(11.66)	20(25)	20(16)	47(17.73)
2	15 minutes-one hour	18(30)	20(25)	40(32)	78(29.43)
3	One hour- two hours	28(46.66)	40(50)	30(24)	98(36.96)
4	Two hours - four hours	7(11.66)	--	25(20)	32(12.07)
5	More than four hours	--	--	10(8)	10(3.77)

*Figures in parentheses indicate percentage

MOST USED SEARCH ENGINE

The analysis of data indicates that Google (www.google.com) and Yahoo (www.yahoo.com) are most popular search engines among faculty members where as *AltaVista, Info please* and *Info seek* are least used.

It is depicted from the data that 35.09% of teachers have gained acquaintance of web sites/e-resources from the internet itself while 28.30%, 22.26% and 14.33% respondents report that source of information about the new web sites is from printed journals/magazine, newspaper and Colleagues respectively.

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Table 4
Acquaintance of web sites/e-resources

S. No.	Sources	No. of Respondents			Total responses
		Prof./60	Reader/80	Lect./125	
1	Internet itself	22(36.66)	26(32.5)	45(36)	93(35.09)
2	News paper	13(21.66)	16(20)	30(24)	59(22.26)
3	Journal /Magazine	18(30)	22(27.5)	35(28)	75(28.30)
4	Colleague	7(11.66)	16(20)	15(12)	38(14.33)

*Figures in parentheses indicate percentage

MOST FREQUENTLY USED SEARCH OPTION

The analysis it is clear that 50.56% teachers prefer selection of search option on the nature of query while 29.43% favour simple search option. However 20% of faculty report that they often use ,advance search option for searching information.

Table 5
Most frequently used search option

S. No.	Search option	No. of Respondent			Total responses
		Prof./60	Reader/80	Lect./125	
1	Simple	8(13.33)	30(37.5)	40(32)	78(29.43)
2	Advance	18(30)	15(18.75)	20(16)	53(20)
3	Depending on the query	34(56.66)	35(43.65)	65(52)	134(50.56)

*Figures in parentheses indicate percentage

MOST USED INTERNET SERVICES

It is found that among Internet tools E-mail is most popular service availed by faculty members (96%) regularly. Next WWW is used by 91% of faculty members and E journals by 58.49% of the

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faculty members. The least used Internet service is Bulletin Board system, used by only 17% of teachers.

FREQUENCY OF E-MAIL MESSAGE

The analysis of faculty members response on frequency of e-mail messages during a day reveals that 30.18% of teachers make one to two e-mails per day where as 29.43% of faculty members make two to four e-mails and 21.13% users e-mail four to six times per day.

E-JOURNALS CONSULTED

It is clear from the data that most of the faculty members (36.22%) consult at least one E-journal per day and 25.66% members consult 2-3 E-journals where as 24.52% of teachers are not consulting any E-journal. However 6.03% of users report use of more than three electronic journals per day.

Table 6
No. of e -journals consulted

S. No.	Frequency of E-journal	No. of Respondent			Total responses
		Prof./60	Reader/80	Lect./125	
1	None	25(41.66)	15(18.75)	25(20)	65(24.52)
2	One	16(26.66)	45(56.25)	35(28)	96(36.22)
3	Two-Three	13(25)	20(25)	35(28)	68(25.66)
4	More than three	6(10)	--	10(8)	16 (6.03)

*Figures in parentheses indicate percentage

ATTITUDE OF STAFF

It is clear from analysis that out of 265 faculty members, 17.35% of faculty members expressed their view that attitude of staff is excellent and 17.73% of faculty members opined it good where as majority of the respondents reveal that staff attitude as average, while 16.98% of the faculty members are not satisfied with their help or attitude.

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Table. 7
Attitude of computer staff

S. No.	Behavior of staff	No. of Respondents			Total response
		Prof./60	Reader/80	Lect./125	
1	Excellent	13 (21.66)	13(16.25)	20(16)	46(17.35)
2	Good	15(25)	20(25)	12(9.6)	47(17.73)
3	Average	21(35)	40(50	66(52.8)	127(47.92)
4	Not satisfied	11(18.33)	7(8.75)	27(21.6)	45(16.98)

*Figures in parentheses indicate percentage

PROBLEMS CONFRONTED

It is observed that 195 (73.59%) of users face difficulties during searching information from the net. 30.57% respondents face slow down loading problem, followed by Technical (14.72%) difficulties, guidance (14.33%), Copying (8.30%) and lack of printing (5.67%) by many users. It is noteworthy that 26.41% of faculty members are not facing any problem in browsing Internet

Table 8.

Difficulties encountered

S. No.	Problem	No. of Respondent			Total response
		Prof./60	Reader/80	Lect./125	
1	No problem	15 (25)	19(23.75)	36 (28.8)	70 (26.41)
2	Technical	9 (15)	13(16.25)	17(13.6)	39 (14.72)
3	Guidance	4 (6.66)	14(17.50)	20 (16)	38 (14.33)
4	Slow down loading	23(38.33)	27(33.75)	31(24.8)	81 (30.57)
5	Copying	4(6.66)	7(8.75)	11(8.8)	22 (8.30)
6	Printing	5(8.33)	------------	10(8)	15 (5.67)
	Total	60(100)	80(100)	125(100)	265(100)

*Figures in parentheses indicate percentage

INFRASTRUCTURE

As far as infrastructural facility is concerned, most of them are not satisfied with number of terminals (57.35%) and printers (60.38%) available in the Teachers Lab. of the computer centre as well as their concerned departments. It is evident that most of the faculty members (<85%) are satisfied with the physical facilities available such as cleanliness, drinking water facilities, lighting etc. On the other hand 33.75% are not comfortable with timings of the Internet Centre, and they suggest that centre should be open round the clock like university central library.

EPILOGUE

The Internet service for accessing information expeditiously and exhaustively is responsibility of Universities. A high-speed Internet connection, with sufficient nodes, and downloading facilities to their faculty members is the need of the hour. Keeping in view that the majority of the faculty members not utilizing internet service due to lack of infrastructure facilities and/or awareness nor able to accommodate new perspectives in their pedagogy, the university need to develop a strategy for improving the situation. However with the completion of the ongoing campus network to link all departments in the campus, the Internet service of the university is expected to improve and meet the information requirements of the faculty members.

However, the investigators put forward few suggestions for further improvement of the facilities. A good number of the faculty members face slow down loading problem while accessing from their concerned department. In order to avoid, slow loading and frequent disconnection, the Internet facilities in the departments should be enhanced by using fiber-optic cables and increasing the capacity and speed of main server. Some faculty members suggested that university should implement Wireless LAN Networking. Staff of the computer center should be properly trained. Qualified female staff needs to be appointed in computer center to help female users for browsing Internet. Internet facility should be available till 12.30a.m instead of 10p.m and open to members all days except national holidays as a good

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number of faculty members are not satisfied with the timings of Internet facility. In order to avoid proxy booking reservation system should be modified. There should be strict vigilance to control non-teaching members/students in using teacher's labs illegally. Since a large number of Internet users are not satisfied with the infrastructure facilities available in AMU, number of terminals and printers should be increased to meet information needs of faculty members. The ongoing project to provide Internet access to all faculty members in their chambers through fiber optics cable should be expedited.

Internet training courses on all levels need to be organized for faculty members in all disciplines; computer centre should take necessary steps in this regard. It was noticed from the informal interview with faculty members that a few academics aware that teaching materials and scare resources which is very useful to them and their students-that is not available at their institution or library- are available for quick access in the form of Databases. The University lib ray should take an initiative to organize workshop on E-resources in collaboration with INFLIBNET. To prevent data and systems from the virus attack some inoculate anti virus software should be installed on the server and individual systems to scan floppy disc.

The multimedia facility and Internet telephony should be introduced in the centre. It is disappointing to note that the internet connection available in the department of studies are very slow due to dial up networking and the computer centre of the university has only 10 terminals for the whole university staff including non faculty members. Authorities should encourage establishing Internet clubs and cafes in University premises especially in residential areas in order to give wider access to the Internet. University should provide financial assistance to the interested faculty members to purchase computer system at low interest rate.

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