

USE OF INTERNET IN HIGHER EDUCATION: A STUDY AT SYLHET AGRICULTURAL UNIVERSITY

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Abstract

The objectives of the study were to determine and describe the extent of internet use by the students of Sylhet Agricultural University (from herein SAU) regarding academic and entertainment and communication purposes. The study was carried out with four faculties (Veterinary and Animal Science, Agriculture, Fisheries and Agricultural Economics and Business Studies) at SAU. A sample of 240 students (20%), sixty from each faculty, was randomly selected from a total population of 1200 students. Data were collected from the sampled students throughout January to March 2013 using distributed questionnaire. Findings of the study showed that most of the students like to use laptop regardless to faculty and gender. Students of Agricultural Economics and Business Studies were the highest (100%) user of internet whether Veterinary and Animal Science faculty was the highest (25%) non-user of internet. Students from Fisheries faculty were the highest user of internet for academic purpose and higher user of internet for entertainment and communication purpose are from Agriculture and Agricultural Economics and Business Studies faculties' students. Female students are more interested in academic use of internet than male. Regardless to faculty and gender; collecting contents from different websites for home assignment and examination and browsing different websites to develop detailed concept of any topics for home assignment are top ranked for academic purpose of internet use. In the case of entertainment and communication purposes, reading newspaper was ranked top position followed by use of Facebook and getting live score of different games for every faculties and each gender.

Key words: Internet, higher education, communication process

Introduction

Internet is a network of hundreds of thousands of computers all over the world, connected in a way that lets other computers access information from them. So if a computer is connected to the Internet, in principle, it can be connected to any other computer on the network. Today, the Internet comprises more than 45,000 regional, national and international networks, which connect peoples in over 200 countries. The networks include organizations, schools, universities, companies, governments, groups and individuals (Gray, 1999). Thus internet access offers unimaginably large amounts of information, data, and interpreted materials. As a powerful and dynamic tool for communication, it is the largest single source of information at the global level (Maheswarappa and Emmanuel, 2003). Considering the internet use purposes, individuals generally use internet to obtain information, entertain themselves, establish communication with acquaintances or with relatives, and establish social relationships with unfamiliar people (Meerkerk *et al.* 2006).

Compared to the general population, university students are the heaviest information and technology users (Aiken *et al.* 2003; Hoffman *et al.* 2004; Parker *et al.* 2000). After 2000 the widespread use of ICT among students was seen throughout the world. The low price of computers and Internet connectivity brought this technology not only to university campuses but also to the homes of students. Even middle class university students in developing countries now have their own computers. ICT used by the students has expanded to internet, e-mail, chat, programming, graphics, spreadsheet, online shopping, online literature searching, and other educational materials. Students' gender, age and level of study have no significant effect on their computer use and attitudes (Mahmud, 2009).

In a very recent study in Bangladesh by Mostafa (2011) showed that a high percentage of internet use among students. Safdar *et al.* (2010) revealed that the students used this technology mostly for communication and educational purposes. More than 56 percent of varsity students use the internet for educational purposes in Bangladesh (Mostafa, 2011). Internet is appealing to higher education because it reduces the time lag between the

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production and utilization of knowledge, it promotes international co-operation and exchange of opinions, it furthers the sharing of information, and it promotes multidisciplinary research (Usun, 2003). According to Bashir *et al.* (2008) educators who advocate technology integration in the learning process believe internet will improve learning and prepare students to effectively participate in the 21st century workplace. Under these circumstances it is essential to assess to what extent the students of Sylhet Agricultural University use internet for their academic and communication and entertainment purposes. In view of this context, the study was conducted with the following objectives: 1) To assess the students' internet use facilities at Sylhet Agricultural University, 2) To determine the relationship of students' internet use with their faculty and gender, and 3) Ranking of the most commonly used practices of internet.

Materials and Methods

Location, population and sample

The study was conducted at Sylhet Agricultural University. All the students of the selected four faculties (e.g. Veterinary and Animal Science, Agriculture, Fisheries and Agricultural Economics and Business Studies) were the population of the study. For each faculty, fifteen (15) students were randomly selected from every level (Level 1, 2, 3 and 4). Thus sixty (60) students were selected from each faculty and total two hundred and forty (240) students from four faculties were constituted the sample of the study.

Measurement of extent of internet use

Internet use was identified under two major areas i.e. academic purposes and entertainment and communication purposes. Total eight (8) and eleven (11) practices were identified from those two major areas by conducting group discussions with the students. Students' responses to each practice were measured by using a four point rating scale. The scores were assigned as 3, 2, 1 and 0 for frequently, occasionally, rarely and not at all, respectively. Thus score may vary from 0-24 for academic purpose and 0-33 for entertainment and communication purpose, respectively. Hence the total score for extent of internet use may vary from 0-57.

Data collection and statistical analysis

A structured questionnaire was prepared in order to collect related, valid and reliable information from the selected students. The questionnaire was carefully designed and prepared with open and closed forms of questions keeping the objectives of the study in mind. In order to give the final shape, the questionnaire was pre-tested with 15 students. Based on the pretest results necessary corrections, modifications, alternations and adjustments were made and then finalized the questionnaire accordingly. Data were collected during January to March 2013. The collected data were coded into numerical, compiled, tabulated and analyzed keeping the objectives of study in mind. In order to categorize and explain the data, some statistical measures such as range, mean, percentage and standard deviation were used. To explore any relationship and association Chi-square test were used. Five percent (0.05) level of probability was used throughout the study as the basis for statistical significant.

Results and Discussion

Students' internet use facilities at SAU

Having own computer and type of computer

Ninety percent of the students of Agricultural Economics and Business Studies faculty have their own computer whereas, almost half (48.3%) of the students of Veterinary and Animal Science faculty has no computer. Preparation of more academic assignment effects the frequency of having own computer for the students of Agricultural Economics and Business Studies. Except Fisheries faculty, more than two-third of the students use laptop as it is portable, cheaper in price and require less space.

In the case of gender, the percentage of having own computer of male students (79.3%) is higher compared to the female counterparts (54.2%) but female students (67%) are more likely to use laptop compared to male students (57%). This result is consistent with the results from Ikolo and Okiy (2012) that the male students seemed very interested in owning their own computers than females and gender based variation in access to computers also supported by Link and Marz (2006), Kay (2006) and Olatokun (2007).

Table 1. Faculty and gender wise percentage of the students having own computer and type of computer

Faculty and Gender	Having own computer (%)		Types of computer (%)	
	Yes	No	Desktop	Laptop
Veterinary and Animal Science	51.7	48.3	23	77
Agriculture	65	35	24	76
Fisheries	59	41	80	20
Agril. Econ. and Business Studies	90	10	29	71
Male	79.3	20.7	43	57
Female	54.2	44.4	33	67

Internet use pattern

Although cent percent of the students of Agricultural Economics and Business Studies faculty use internet at the same time one-fourth of the Veterinary and Animal Science students don't use internet. This may be due to lack of academic notes/documents available at students' level of Agricultural Economics and Business Studies faculty as it was newly commencing faculty in SAU. Abundance of academic materials, more course work and academic pressure may hinder the students of Veterinary and Animal Science faculty to use internet. Variation in internet use among faculties also supported by the past studies as Lazinger *et al.* (1998) found the use of the Internet was comparatively higher among faculty of sciences and agriculture than in humanities and social sciences. To access internet, eighty percent of the students of Agricultural Economics and Business Studies and Fisheries faculty use modem and direct at cell phone, respectively as these are the cheapest and easiest way.

Females (91.5%) are more interested in internet than males (85.1%). More than half (52.9%) of the female students used internet direct at cell phone however, around half (48.3%) of the male students used internet modem for having internet services.

Table 2. Faculty and gender wise percentage of students using internet and mode of internet connection

Faculty and Gender	Using Internet		Mode of internet connection			
	Yes	No	Modem	Cell phone as modem	Direct at cell phone	Others
Veterinary and Animal Science	75	25	25	21.7	40	13.3
Agriculture	91.7	8.3	51.6	6.7	31.7	10.0
Fisheries	90	10	5.0	10	80	5.0
Agril. Econ. and Business Studies	100	0.0	80	5.0	15	0.0
Male	85.1	14.9	48.3	18.4	21.8	11.5
Female	91.5	8.5	34	6.6	52.9	6.5

Faculty-wise scenario of internet use**Faculty-wise extent of internet use for academic purpose**

Data presented in the Table 3 reveals that highest proportion (40%) of the students from Fisheries faculty fallen in high category for academic purpose of internet use followed by 25% from Agricultural Economics and Business Studies, 11.7% from Agriculture and 6.7% from Veterinary and Animal Science faculty.

Table 3. Distribution of the students according to their faculties and extent of internet use for academic purpose

Faculty	Internet use for academic purpose			Total
	Low (up to 6.06)	Medium (6.07-15.87)	High (above 15.87)	
Veterinary and Animal Science	14 (23.3)	42 (70.0)	4 (6.7)	60 (100)
Agriculture	12 (20.0)	41 (68.3)	7 (11.7)	60 (100)
Fisheries	18 (30.0)	18 (30.0)	24 (40.0)	60 (100)
Agril. Econ. and Business Studies	3 (5.0)	42 (70.0)	15 (25.0)	60 (100)
Total	47 (19.6)	143 (59.6)	50 (20.8)	240 (100)

Chi square=41.326; df=6; p<0.000; Significant association

Data presented in the Table 3 indicates that variation of internet use for academic purpose of the students varied by their faculties as the computed chi square value of 41.33 was statistically significant at 0.001 level of probability. Similar study conducted by Loan (2011) among the students of Kashmir valley revealed that students of Social

Sciences and Humanities are the highest user of internet for education purpose followed by General Science, Computer Science, Business and Commerce.

Faculty-wise use of internet for entertainment and communication purpose

Data furnished in the Table 4 set forth that students of Agricultural Economics and Business Studies and Agriculture faculty secured highest proportion (20%) in the category of high use of internet for entertainment and communication purpose followed by 6.7% from Veterinary and Animal Science whereas no students from Fisheries faculty fell in this category.

Data presented in the Table 4 indicates that variation of extent of internet use for entertainment and communication purpose of the students varied by their faculties as the computed chi square value of 33.73 was statistically significant at 0.001 level of probability. Ozad and Kutoglu (2010) found the students of Communication and Media Studies faculty of Eastern Mediterranean University prefer internet as the best mass communication medium and variation among the students of different discipline for communication purpose of internet use was revealed by Loan (2011).

Table 4. Distribution of the students according to their faculties and extent of use of internet for entertainment purpose

Faculty	Internet use for entertainment and communication purpose			Total
	Low (up to 6.74)	Medium (6.75-18.47)	High (above 18.47)	
Veterinary and Animal Science	8 (13.3)	48 (80.0)	4 (6.7)	60 (100)
Agriculture	15 (25.0)	33 (55.0)	12 (20.0)	60 (100)
Fisheries	12 (20.0)	48 (80.0)	0 (0.0)	60 (100)
Agril. Econ. and Business Studies	0 (0.0)	48 (80.0)	12 (20.0)	60 (100)
Total	35 (14.6)	177 (73.8)	28 (11.7)	240 (100)

Chi square=33.728; df=6; p<0.000; Significant association

Gender-wise scenario of internet use

Gender-wise use of internet for academic purpose

Data presented in Table 5 indicates that more than double proportion of female students (31.1%) fallen in high category for academic purpose of internet use compared to male students (15%). On the other hand, male students are to some extent lower user (20.3%) of internet for academic purpose than female students (18.4%). However, it does not agree with the study of Thanuskodi (2013) who found males are more interested in educational use of internet than females.

The variation of internet use for academic purpose of the students according to the variation of their gender was statistically significant at 0.05 level of probability as indicated by the chi square value (8.78).

Table 5. Distribution of the students according to their gender and use of internet for academic purpose

Gender	Internet use for academic purpose			Total
	Low (up to 6.06)	Medium (6.07-15.87)	High (above 15.87)	
Female	16 (18.4)	44 (50.6)	27 (31.0)	87 (100)
Male	31 (20.3)	99 (64.7)	23 (15.0)	153 (100)
Total	47 (19.6)	143 (59.6)	50 (20.8)	240 (100)

Chi square=8.775; df=2; p<0.05; Significant association

Gender-wise use of internet for entertainment and communication purpose

Table 6. Distribution of the students according to their gender and use of internet for entertainment and communication purpose

Gender	Internet use for entertainment and communication purpose			Total
	Low (up to 6.74)	Medium (6.75-18.47)	High (above 18.47)	
Female	18 (20.7)	58 (66.7)	11 (12.6)	87 (100)
Male	17 (11.1)	119 (77.8)	17 (11.1)	153 (100)
Total	35 (14.6)	177 (73.8)	28 (11.7)	240 (100)

Chi square=4.529; df=2; p>0.05; Not Significant

Data furnished in the Table 6 indicates that higher proportion of the female students (20.7%) fallen in low category for entertainment and communication purpose of internet use compared to male students (11.1%).

The computed Chi square value of 4.529 was not statistically significant at 0.05 level of probability. So, there is no association between gender and internet use for entertainment and communication purpose. This result is consistence with the study of Roman (2003) who concluded that there is no significant difference between male and female rate of Internet use for entertainment.

Ranking of internet use practices based on faculties and gender

In case of Academic purpose; collecting contents from different websites for assignment, collecting contents from different websites for examination and browsing different websites to develop detailed concept of any topics for preparing home assignment are top ranked for every faculties and each gender. Home assignment is an important part of academics at SAU as many courses demand home assignment to be submitted for certain marks. The findings are supported by Islam (2013) who found that student of Department of Information Science and Library Management in Dhaka University use Internet mostly to do homework and prepare for their lessons.

In the case of entertainment and communication purpose; reading newspaper was top ranked followed by use of Facebook and getting live score of different games for every faculties and each gender. Students are always interested to be informed with latest worldwide news and Facebook is no doubt the most common electronic way of communication now a days.

Table 7. Ranking of internet use practices based on faculties and gender

Internet use practices	Faculty				Gender	
	*Vet	Ag	Fi	AE	M	F
Academic purpose						
Collecting contents from different websites for examination	2	6	4	3	4	2
Collecting contents from different websites for home assignment	1	2	1	2	1	1
Browsing different websites to develop detailed concept of any topics for examination	4	5	5	5	5	6
Browsing different websites to develop detailed concept of any topics for preparing home assignment	6	3	3	1	2	3
Downloading academic related figures for home assignment	3	1	6	4	3	5
Sharing academic information in specific group in Facebook	5	4	2	6	6	4
Downloading academic related books and journals	8	8	8	8	7	8
Searching scholarship	7	7	7	7	8	7
Entertainment and communication purpose						
Use of Facebook	3	2	2	2	2	2
Use of Skype	7	8	9	9	6	9
Reading newspaper	1	1	1	1	1	1
Getting live score of different games	2	3	3	6	8	3
Downloading movies	9	9	10	8	7	8
Downloading songs	6	6	5	3	3	5
Downloading games	8	7	4	7	9	4
Downloading useful softwares	4	5	7	4	5	7
Outsourcing	10	10	8	11	10	10
Sending email	5	4	6	5	4	6
Blogging	11	11	11	10	11	11

*Vet= Veterinary and Animal Science, Ag=Agriculture, Fi =Fisheries, AE=Agricultural Economics and Business Studies, M=Male and F=Female

Most of the students from Agricultural Economics and Business Studies faculty had computer and all faculty students prefer to use laptop. More than 85% of the student uses internet regardless to faculty and gender except Veterinary and Animal Science faculty where one-fourth of them are away from it. Mobile phone and modem are the most commonly used tool to access internet.

There is a significant positive relationship between faculty and internet use of students both for academic and entertainment and communication purpose. The Highest proportion of students from Fisheries faculty use internet mostly for academic purpose while students of Agriculture and Agricultural Economics and Business Studies mostly interested in using internet for entertainment and communication purposes. Female are more interested to use internet for academic purpose as compared to male. Regardless to faculty and gender, students use internet to prepare home assignment, read online newspaper and browse Facebook.

Students should be inspired to study academic topics in internet by the respective faculty members to get elaborate idea and updated knowledge. It is essential to increase the overall internet facilities at SAU for the students. Special attention need to be given to the students of Veterinary and Animal Science faculty by increasing the internet facilities at faculty building, demanding more assignments for marks, motivation and inspiration. Furthermore, internet server room having few computers with internet connection should be established at every student's hall by the varsity authority.

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