Internet and its Impact on Academic Performance of University Students : A Brief Survey

Farah Fayaz Quraishi[1], Muheet Ahmed Butt[2], Majid Zaman[3], Sajad Mohammad Khan[4]

[1]Research Scholar, PG Department of Computer Sciences, University of Kashmir, Srinagar, India
[2]Scientist "D", PG Department of Computer Sciences, University of Kashmir, Srinagar, India
[3]Scientist "D", Directorate of IT and SS, University of Kashmir, Srinagar, India
[4]Scientist "B", PG Department of Computer Sciences, University of Kashmir, Srinagar, India

ABSTRACT

The growth of internet has created a new scientific communication system with new facilities that are competing with the traditional sources of information. Internet is one of the greatest recent advancement in the world of information and has become a useful instrument that has fostered the process of making the world a global village. This is a universal fact that the use of internet has a great impact on the students' academic achievement and even on social life. The proposed research survey was conducted on University students to determine the effects of use of internet on the academic performance. The proposed research survey not only identifies various challenges in this regard but also proposes various recommendations and suggestions for it stake holders.

Keywords: Information Technology (IT), Internet

I. INTRODUCTION

A study of different disciplines was conducted to identify the intensity of internet usage by student who belonged to different disciples. The purpose of our study was to evaluate whether there is any relationship between the usage of internet and student's academic performance. This study tries to answer these questions by exploring the antecedents to, and the impacts of Internet use in university education.

This study could be beneficial for students as well as for institutions. The valuable feedback from 160 students should help students to realize the benefits of internet in their education. Institutes can invest more in internet facilities to enhance the performance of their students and produce better results. National and international readers can take advantage from this study work.

II. LITERATURE REVIEW

Advancement in technology brings major impacts on education (Underwood2003). Many universities around the world are expanding their investment in information technology (IT), and specifically the Internet, and are actively promoting Internet use in university education (Al-Nuaimy Zhang& Noble,2001; Bargeron, Grudin, Gupta &Sanocki, 2002; Chandler, 2002; Chen & Paul,2003; Dringus, 1999; Huang et al, 2004; Kinshuk, 2002; Owston, 2000; Pahl,2003; Richardson, 2003; Rovai, 2001).Instructors are being requested to make their teaching materials and other supporting resources accessible through the Internet (Alavi, 1994; Barker, 2002; Coppola, Hiltz & Rotter, 2002; Lee, 2001;Topper, 2002).Students are encouraged to communicate with instructors, or with one another, via email. As universities promote Internet use, they need to understand their students' attitudes towards using it (Frank, Reich& Humphreys, 2003; Milliken& Barnes, 2002).

Instructors have long since considered the introduction of novel technologies into the classroom in hopes of stimulating student interest, focusing attention and fostering learning (Pall off& Pratt, 1999). Indeed, the advent of the Internet in recent years has brought with it new possibilities for instructors to creatively deliver effective course instructions to students (Carswell, Thomas, Petre, Price, Richards, 2000). For instance, Kekkonen-Moneta and Moneta compared the students'

learning outcomes in alecture with an online version of an introductory computing course. Both lecture and online-learning, students achieved comparable factual learning outcomes. Moreover, the online students outperformed the lecture students in applied-conceptual learning. Among others, these findings suggest that the use of carefully designed interactive learning modules can effectively foster higher-order learning outcomes. Indeed, Martin and Taylor (1997) regarded a virtual classroom as the next step in the development of educational technology. There are various types of possible support that may be provided at organizational level by a university, such as support from instructors and technical experts and training opportunities. These types of support may lead to greater Internet use and more effective learning.

While Internet use in university education is becoming more widespread and provides a supplement to traditional teaching methods, more extensive research in this area should be conducted to fully understand what factors lead to greater Internet use and better learning performance in students (Waiman Cheung and Wayne Huang,2005).Although there are many organizational factors (Igbaria & Tan,1997; IgbariaParasuraman & Baroudi, 1996) that may influence an individual's perceptions and attitudes, only two are considered dreadfully important, organizational support and IT support (Igbariaetal, 1996). Internet usage among university students, including the frequency and intensity of Internet use also significantfor relationship between internet usage and student performance (Igbaria &Tan, 1997; Igbaria, Zinatelli, Gragg & Cavaye, 1997). Previous studies on Internet use of teenagers have been inclined to concentrate on Internet addiction (Na, 2004; Kim, 2004; Kim, 2002; Limetal.,2004; Son, 2003). These studies have suggested alternatives by investigating conditions of Internet addiction. However, their efforts had some limitations,in that they considered individual social-psycho attributes as a cause and an effect simultaneously. Also, their focus on the negative aspect of Internet use hampered to develop further discussion. The implication drawn from thesestudies is that we can launch an effective policy for Internet addiction by analyzing the school environment that is an important factor for students using the Internet.

Seo (2004) approached Internet use from a different perspective. Unlike previous studies that stressed the effect of family, he analyzed, through a survey, how the collective attribute of school environment affects Internet use. The result indicates that the negative effect of Internet use is confined within excessive Internet users rather than exerts influence on studentInternet users in general. In a school where the percentage of white-collar parents was higher, students tended to have stronger motivation and self-regulation than in other schools. As a result, socio-economic attributes of students in a school tend to influence students' Internet use time and Internet use proficiency. His another research indicates that "Internet centered pattern", which is more reliant on Internet use, would show relatively lower school records. The Internet is a neutral, "valuefree" technology and medium. However, the school, an environmental variableand motivation, an individual variable sways the degree of Internet use as well as its outcome.

Jeong (2005) examined the difference in academic performance of elementary school students by Internet use. This empirical research reports that Internet addiction is significantly and negatively related to students' academic performance as well as emotional attributes. He suggested that negative aspects of Internet use can be avoided by promoting students' self-regulation capability with help from teachers and parents. As the public interest in 'e-learning' is growing rapidly, its effects on education cannot be ignored. In this sense, it is meaningful to examine how the Internet use pattern and Internet contents affect academic performance of students. If we can find negative or positive relations between various types of Internet contents, that will provide us with a sound basis to control or encourage specific Internet contents.

III. RESEARCH METHODOLOGY

The survey was designed to measure the effects of internet on students and later a logical observation was derived to arrive at conclusion. The survey was a blend of both quantitative and qualitative research methods to develop an insight about the research question. For this survey, the data collection instrument was a questionnaire which was developed to motivate, uplift and encourage the respondents to become involved in research study and to obtain honest opinion from them. Questionnaire, which included both open-ended as well as close ended questions, was framed to obtain desired information from potential respondents. The sample

was selected from the target population that is University of Kashmir and this sample represented the whole population.

IV. RESULTS AND DISCUSSIONS

A sample of 160 respondents was taken in consideration for the survey. Based on the raw data collected from the respondents, only 149 respondents (93%) were internet literate whereas the rest 11 respondents (7%) couldn't fill the questionnaire as they had no or hardly any knowledge regarding the internet.

Table 1 intends to find out whether students browse the internet regularly or not. According to the survey, out of 149 respondents that have knowledge about internet 139 students (i.e. 92.25%) use internet regularly whereas 11 (7.38%) respondents hardly use internet on daily basis.

The survey also intends to find out the time each student spends on browsing internet in a day. It has been observed that majority of the students - 65(47.10%) said that they browse internet for more than 4 hours in a day whereas 27.3% of students said that they browse internet for two hours in a day and 25.36% of students said that they browse internet for three hours in a day.

TABLE 1: BROWSING HABITS

USE INTERNET ON DAILY BASIS	FREQUENCY	PERCENTAGE
YES	138	92.25%
NO	11	7.38%

Time spend on internet browsing

HOURS	FREQUENCY	PERCENTAGE
Two hours	38	27.5%
Three hours	35	25.36%
Four hours or more	65	47.10%

Graph 1 elicits the usage of internet by students for participation in self-help groups. Out of 149 respondents that us internet, the highest number of respondents 62 (38%) said that they rarely participate in self-help groups, 23% of students said that they frequently participate in self-help groups whereas 5% of students said that they very frequently participate in self-help groups. 15% of students said they never participate in self-help groups.
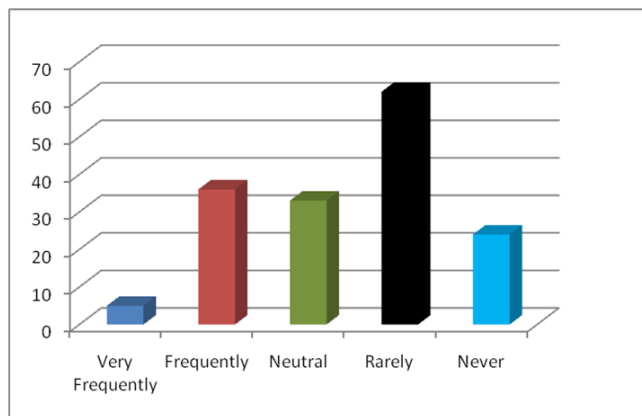

Graph 1: Students participation in self-help groups.

Table 2 shows that only 13% of respondents strong agree that they browse internet mainly for academic purposes while 3% of respondents use internet for purposes other than academics. Remaining respondents say that besides using internet for academic purposes, they also use internet for other purposes which include downloading and watching movies, unnecessary browsing and so on.

Table 2: Students browse internet for academic purpose.

RESPONSE	FREQUENCY	PERCENTAGE
Strongly agree	20	13%
Agree	70	47%
Neutral	44	30%
Disagree	10	7%
Strongly disagree	5	3%
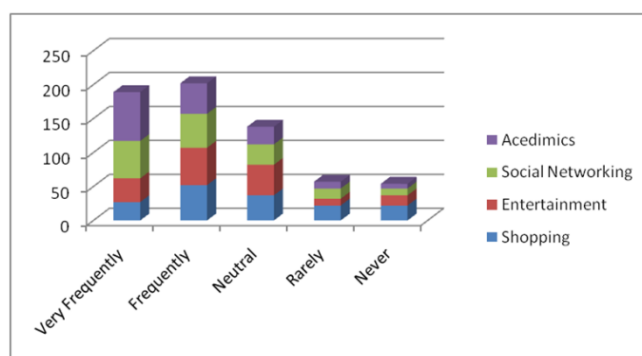
Graph 2: Main purpose of browsing by university students.

Graph 2 shows the various ways in which students use internet other than the academic purpose. 48.3% of respondents said that they very frequently browse

internet for an academic purpose whereas 37% of students said that very frequently they browse internet for social networking purpose only. 23% of students said that very frequently they browse internet for an entertainment purpose. Only 18% of students said that very frequently they browse internet for shopping purpose

Table 3 intends to find out the internet facilities which best serves the student. The highest number of students-36% said that internet helps them in preparing assignments. 23% of students said that internet helps them in giving information. 24% of students said that online library facility serves the best. 20% of students said that online classes serve them best. And only 0.1% of students said that online exams serve them best.

Table 3: Internet facility that serves best.

INTERNET FACILITY	FREQUENCY	PERCENTAGE
Online libraries/books/dictionary	31	21%
Online classes/lectures/notes	30	20%
Preparing assignments	53	36%
Information(general)	34	23%
Online examination	1	0.1%

The purpose of table 4 is to elicit whether students get information related to their course while browsing internet or not. Majority of the students- 90% responded that they frequently get information related to their course while browsing internet. 15% of students said that very frequently they get information related to their course. 10% of students responded that to some extent they get information related to their course. 7% of students responded that they rarely get information related to their course. 3% of students said that they never get information related to their course.

Table 4: Students get information relevant to their course.

RESPONSE	FREQUENCY	PERCENTAGE
Very frequently	30	20%
Frequently	89	60%
Neutral	15	10%
Rarely	10	7%
Never	5	3%

Table 5 shows whether browsing internet has enhanced the academic performance of students or not. The graph shows the following response: Majority of the students 88(60%) agree that internet has enhanced their academic performance. 27(18%) of students strongly agree that internet has enhanced their academic performance. 34(16%) of students responded to some extent internet has enhanced their academic performance. Only 5(3%) of students disagree that internet has enhanced their academic performance. Only 5(3%) of students strongly disagree that internet has enhanced their academic performance.

Table 5: Enhancement in academic performance of students.

RESPONSE	FREQUENCY	PERCENTAGE
Strongly agree	27	18%
Agree	88	60%
Neutral	24	16%
Disagree	5	3%
Strongly disagree	5	3%

Table 6 intends to find out whether students lose their track and move to other stuff while searching their academic topic or not.

- The highest number of students-50(33%) responded that they frequently lose their track and move to other stuff while searching their academic topic.
- 19(13%) of students said that they very frequently lose their track while searching their academic topic and move to other stuff.
- 28(19%) of students said that they sometimes lose their track while searching their academic topic and move to other stuff but sometimes not.
- 40(27%) of students responded that they rarely lose their track searching their academic topic and move to other stuff.
- Only 12(8%) of students responded that they never lose their track and move to other stuff while searching their academic topic.

Table 6: Students lose track while searching.

RESPONSE	FREQUENCY	PERCENTAGE
Very frequently	19	13%
Frequently	50	33%
Neutral	28	19%
Rarely	40	27%
Never	12	8%

Table 7 shows whether the academics of the students suffer because of the time they spend online. The highest number of students,55(37%) agree that their academics suffer because of the time they spend online. 19(13%) of students strongly agree that their academics suffer because of the time they suffer online. 40(27%) of students responded that sometimes their academics suffer because of the time they spend online. Only 23(15%) of students disagree that their academics suffer because of the time they spend online. Only 12(8%) of students strongly disagree that their academics suffer because of the time they spend online.

Table 7: Academics suffer due to internet usage.

RESPONSE	FREQUENCY	PERCENTAGE
Strongly agree	19	13%
Agree	55	37%
Neutral	40	27%
Disagree	23	15%
Strongly disagree	12	8%

HYPOTHESIS TESTING:

H0= There is no significant effect of internet on academic achievement.
H_1= There is a significant effect of internet on academic achievement.

Options	Effect on academic achievement	No effect on academic achievement	Total
Using internet	149 {139}	0 {10}	149
Not using internet	0 {10}	11 {1}	11
Total	149	11	160

Calculation of Expected Frequency:
E_1 = (149*149/160) = 139
E_2 = (11*149/160) = 10
E_3 = (149*11/160) = 10
E_4 = (11*11/160) = 1

Calculation of x^2

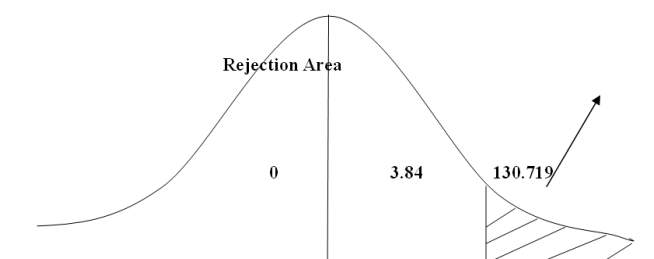| OBSERVED(O)	EXPECTED(E)	O-E	(O-E)2	$X^2 =(O-E)^2/E$
149	139	10	100	0.719
0	10	-10	100	10
0	10	-10	100	10
11	1	1	100	100
				ΣX^2 = 130.719

Calculation of Table Value:
Level of significance = 5%
Degree of freedom = (r-1) *(c-1) = 1
Table value = 3.84
Decision:

Hence H_0 is rejected as x^2 is greater than table value. Therefore, H_1 is accepted.

There is an effect of internet on academic achievement.

V. RECOMMENDATIONS

As researcher we cannot fully subside the negative effects internet has on students, but definitely we can recommend ways by which its positives will groom to later groom students. Students have to remain focused on the sites that are not distracting and have to take proper advantage of internet and the services it provides. Students must learn to balance the academic and social activities on internet in a way that none of the two is negatively affected. One should have a judicious, wise, proper and precious use of internet. Universities and homes can play a great role by simply providing firewalls and enabling use of only academic sites. Know that people out there are better just because

they use internet wisely. If all one has to do is play games and entertain himself then he is not among them. Internet is a gateway to whole globe. Everyone has choice, only wise choose wisely.

Psychologically, a person will suggest a certain solution or advice only when he himself practices it or when he has gained a total insight by observing others. For this survey, it was very necessary to derive suggestion form the respondents which in turn would tell us how and for what purpose they use internet.

Some of the suggestions to respondents include:
- Stay focused on the sites that aren't distracting you from your main goals as a student.
- Internet is a blessing if used properly, otherwise we might see a gradual degradation of academics.
- Do not use internet during study hours if you can't stay focused on informative and relative sites. Make a proper schedule of when to use internet and for what purpose, keeping in consideration your educational as well as social needs.
- Balance the time for studies using internet and the time for social interactions.
- You must join online crash courses; they are totally helpful.
- Internet is a warehouse of knowledge, use it wisely.
- Think before you use it. Know what is beneficial and what is detrimental.
- Pose restrictions on sites that do not provide any academic information.
- Use internet as a tool for enhancing your academics performance, don't waste money and time.
- One should have a judicious, wise, proper and precious use of internet. Universities and homies can play a great role by simply providing firewalls and enabling use of only academic sites.
- Internet should be censored if one is not able to control his addiction of deviation.
- Don't rely on internet for small things this will make you a machine dependent human and thus will reduce your capability to think, degrading your mental and eventually your physical health.
- Focus on positive attributes of internet, it is highly useful thing.
- Internet provides a platform to connect to any part of the world. It is in our best interests to use it

wisely. Balance the use of internet for academic purpose and other purposes like entertainment, chatting etc. which are equally important.
- Internet is your gateway to whole globe. First know and then be where ever you want to be. You have choices, choose wisely.
- Internet has advanced our mental capability and equally has crippled us. Stay focused and enjoy the merits of internet and avoid its demerits.
- Actively participate is online quizzes, debates, competitions, and other beneficial activities which will enhance your knowledge and your personality making you more civilized person.
- Avoid too much use of social networking sites like Facebook, WhatsApp etc. Try to balance their usage with academically beneficial sites.
- Take advantage from advantages of internet and stay away from its disadvantages.
- Know that people out there are better than you just because they use internet wisely. If all you do is play games and entertain yourself then you aren't one among them.
- Internet is mother of all inventions. Don't let it spoil you.

VI. CHALLENGES AND LIMITATIONS OF THIS SURVEY

Surveys are prone to certain limitations which may, to some extend affect the research results. Future studies should take these research limitations into consideration at the design stage, so that research can be improved and accuracy further increased.
Some of the limitation of this survey are:
- Respondent may not have provided accurate and honest answers.
- Respondents may not be fully aware of their reasons for many given answers because of the lack of memory on subject or even boredom.
- Level of significance is assumed to be 5%.

VII. CONCLUSION

The conclusion drawn from the proposed research work is that the use of internet is one of the major factor affecting the academic performance of university students. On the basis of findings, University students are positively affected by usage of internet. There were

hardly few respondents who refused to agree about the merits of internet on academics.

Even though using internet has its own demerits, its positive aspects has subsided its negative effects. Internet is now the ultimate source of knowledge and information just a click away. Internet has become a necessity of modern day students for upgrading knowledge about their respective subjects as well as any other subject they want to intervene into. It is through internet that students are learning professionalism. It has added accuracy to information retrieval and has added to the mental capacities and capabilities of students. Overall internet has broadened the scope of education and ways of acquiring education.

VIII. REFERENCES

[1]   Al-Nuaimy, Zhang, & Noble, (2001). Web-based learning environmentfor a communications module. **Computer Applications in EngineeringEducation** 9,114–121.

[2]   Alavi, M. (1994). Computer-mediated collaborative learning: an empirical evaluation. **MIS Quarterly**, 5, 6, 325–350.

[3]   Bargeron, Grudin, Gupta, & Sanocki, (2002). Asynchronous collaboration around multimedia applied to on-demand education.

[4]   **Journal ofManagement Information Systems**, Barker (2002).

[5]   Innovation in open and distance learning – successful development of Online and web-based learning. **Innovations in Education andTraining International**, Carswell, Thomas, Petre, Price, & Richards, (2000)

[6]   **British Journal of** Educational **Technology**, Chandler (2002).

[7]   Innovation inopen and distance learning. Successful development of online and web based learning.

[8]   **Studies in Higher Education**,Chen, S. Y. & Paul, R. J. (2003). Editorial: individual differences in web-based instruction—an overview.

[9]   **British Journal of Educational Technology**, Coppola, N., Hiltz, S. R. & Rotter, N. G. (2002). Becoming a virtual professor: pedagogical roles and asynchronous learning networks.

[10]   **Journal ofManagement Information Systems**, Dringus (1999).

[11]   **The Internet and Higher Education**, Huang, Yen, Lin, & Huang. "How to Compete in Global Education Market Effective Conceptual Framework for Designing a Next Generation Education System".

[12]   **International Journal of Information Management**, 12, 2, April–June 2004, USA, pp. 84–107.

[13]   Igbaria, Parasuraman, & Baroudi (1996). A motivational model of microcomputer usage.

[14]   **Journal of Management Information Systems**, Igbaria, & Tan, (1997). The consequences of information technology acceptance on subsequent individual performance.

[15]   **Information and Management**, Kekkonen-Moneta, Moneta (2002). E-learning in Hong Kong,comparing learning outcomes in online multimedia and lecture versions of an introductory computing course.

[16]   **British Journal of Educational Technology**,Igbaria, M. Zinatelli, Gragg, & Cavaye, (1997).

[17]   Personal computing acceptance factors in small firms: a structural equation model. MIS Quarterly, 279–305.

[18]   Kinshuk, (2002). Web-based learning and teaching technologies: opportunities and challenges.

[19]   **Online Information Review**, Lee (2001). Profiling students' adaptation styles in Web-based learning.

[20]   **Computers and Education**, Martin, & Taylor, S. A. (1997). The virtual classroom: the next steps.

[21]   **Educational Technology**, Owston, R. D. (2000). Evaluating web-based learning environments: strategies and insights.

[22]   **Cyberpsychology and Behavior**, Pahl, C. (2003). Managing evolution and change in web-based teaching and learning.

[23]   **Computerand Education**, Palloff, R. M. & Pratt, K. (1999). **Building learning communities in** cyberspace**: effective strategies for the online classroom**.

[24]   San Francisco: Jossey-Bass. Richardson, J. T. E. (2003). Approaches to studying and

perceptions of academic quality in a short web-based course.

[25] **British Journal of Educational Technology**, Rovai, A. P. (2001). Building classroom community at a distance: a case study.

[26] **Educational Technology Research and Development**, Topper, A. (2002). Web-based learning and teaching technologies: opportunities and challenges.

[27] **Teachers College Record** ,Waiman Cheung and Wayne Huang (2005) Proposing a framework to assess Internet usage in university education: an empirical investigation from a student's perspective.