

Student Use of Internet in China: A Study on Huazhong University of Science and Technology (HUST)

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Abstract: Internet is swiftly developed in China; it is third in the globe next to U.S.A and Japan. Among the Internet users university students take the primary place; though they use it for social and leisure activities than education. Chinese students' usage of the Internet for academic purpose is found poor and insignificant. The paper presents findings, summary and conclusion of the study.

Key Words: Internet, Education, Student

Introduction

Internet has become the fastest growing electronic technology in world history. It was in 1987 the first email was sent from china. In 1995 Wuhan connected to the Internet in IP/X.25 technology. Huazhong University of Science and Technology has accessed the Internet in 1996 (<http://www.rand.org/publications/MR/MR1543/>). Currently about forty-six million people are using the Internet in China. Among the users, students take the primary place especially college/university students.

College university students are a unique population occupying a middle ground and adulthood, they have been an agent of social change. They were the first to use Internet for communication, recreation, file sharing and so on; Internet is also found in the university.

Internet is a staple of college student's educational experience. They use the internet to communicate professors and classmates, to research and to access library materials. For more college and university students the internet is a functional tool, one that has greatly changed the way they interact with others and with information as they go about their studies (Pew Internet and American Life August 14 2002).

There is a scandal that mostly university students do not use internet to academic purpose as much as they do for social activities. For example, the study conducted by Pew Internet and American Life revealed that "college students use internet for social activities like communicating with friends through email and instant messaging reaches about 72%" (Pew Internet and American Life, 2000). So, the internet usage of the university students for education is limited. In addition, some research findings found out sex, age, education level has a significant effect on internet usage of students in the collage.

Based on this the writer pose a question: Is the above conditions are similar to Chinese university students especially in Wuhan? Generally the aim of this paper is to explore students' use of internet in collage and university level.

The writer poses the following questions:

1. Does internet have any effect on academic performance of university students?
2. Do student use internet for education purpose better than any other areas (entertainment, playing games, listening music watching videos and the like)?
3. Is there any difference between male and female students on Internet usage?

4. Do students use internet to communicate with their professors (teachers)?
5. Do students use internet to find information than library?
6. Do students spend more time online for academic purposes than other activities?
7. Does education level (grade level) have any impact on students' internet usage?
8. What roles do teachers play in students' internet usage to facilitate the teaching learning process?

Purpose of the Study

The purpose of the study is to:

- assess the students' use of internet for education purpose.
- Prove the assumption that most student use internet for social activities and entertainment than that of education.
- know the impact of sex, age and education level on using internet at the university.
- pave the way for other researchers to make a detail research in the area.

Methodology

The scope of this study is in HuaZhong University of Science and Technology. The target population of this study is the students of HUST. About 20 departments was selected from 20 different schools. 50 students was selected randomly from each department. From these, 20 undergraduate, 20 master and 10 PhD students were chosen.

The sample includes Chinese students. Questionnaires and interview was used to collect data. Questionnaire was administered for about 1000 students. From all the respondents, only 640 are responded: 342 under graduate (197 are males and, 145 are female), 246 master (157 are males and 89 are females) and 52 PhD (39 are meals and 13 are females). The sample includes all enrollment academic years (1999-2002). Percentage is used to analyze the data. Finally, summery and conclusion is given based on the findings.

Empirical Findings: According to research reports, Internet has played a great role in order to facilitate the teaching learning process. Students said internet help them navigate their way through school and spend more time learning in depth about what is most important to them personally. They do not stick to the material that they do not understand rather they juggle their schoolwork through the use of the internet (Jeffery I. Cole, *et al.*, 2000).

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Generally, the student described the use of Internet to:

- Conduct research, to help them write papers or complete their class work, homework or assignments.
- Correspond with other online classmates about school projects and upcoming tests and quizzes.
- Share tips about favorite websites and pass along information about homework shortcuts and sites that are especially rich in content that fill their assignments.
- Communicate with online teachers/tutors.
- Participate in online study groups and even to take online classes or courses.

On the other hand there are many roadblocks using the Internet. The first and the most drawbacks are speed, limited access of educational websites and unavailability of online information freely. Similarly, lack of professional development of teachers and the absence of integration of Internet into the curriculum are also the factors that inhibit the use of the Internet of the students for academic purpose.

Analysis and Interpretation of Data: This part analyzes and interprets the collected data. Percentage is used to analysis the data. The data is presented in tables.

Table1: Do You have Your Own Computer?

Yes			No		
Male	Female	Total	Male	Female	Total
38.9	15.6	55.47%	22.5	22.03	44.53%

In the above table shown, the number of students who own personal computer exceeds that of who doesn't. The study depicts that most postgraduate students have their own computer than undergraduate students. This helps them to access Internet in their dormitory and at school laboratory. More than half of the students (55.47%) own personal computer. It doesn't mean that those who have no personal computer do not use Internet. The study found that all the students (100%) in Hazhong University of Science and Technology (HUST) use Internet.

Table 2: Where do You use Internet?

home	dormitory	School laboratory	Internet cafe	other
4%	26%	48%	11%	6%

As we can see it from table two most of the students use Internet in the school laboratory (48%) and followed by dormitory and Internet café. Students with no personal computer use Internet in school laboratory and Internet café.

Table 3: How Many Hours do You Spent on Line in a Day?

1hour	2-4 hours	5-8hours	More than 8 hrs
56%	31%	10%	3%

According to table three, 56% students spend one hour everyday on surfing Internet and 31% students spend 2-4 hours. The study in UCLA found that "the more experience users have with the Internet, the more time they spend online .Very experienced users are almost twice as long as new users." as a result senior (third

and fourth year) students spend more time than freshman and sophomore (second year) students. Surprisingly, men spend more time online than women. Even there is a significant difference between male(85%) and female(68.7%) students spend one hour everyday on Internet. 82%, 66%, and 71% bachelor, master and doctorate students stay one hour online everyday.

Table 4: How Much do you Spend for Internet in a Month?

0-50 Yuan	50-100Yuan	100-150Y	150 and above	other
75%	9%	3%	2%	11%

This table indicates, the amount of money the students spend every month to access Internet. As the table depicts the students expense on Internet is 0-50 Yuan per month. This includes free access of Internet at school laboratory and at dormitory. Students only spend if they use Internet at Internet café, otherwise (the school is connected in LAN network) they access internet freely though it is domestic at dormitory.

Table 5: I Start using Internet when I was

Under high school	5%
High school	15%
Collage/university	80%

Table five indicates the time that students began using internet. College /university is the primary place of beginning to use the Internet and followed by high school and under high school. Now a day's most high schools have the access of the Internet.

Table 6: What do You Look for when You are Online

	m	F (%)	
Something related to education	16.8	11.5	28%
politics	2.1	1.2	3%
business	1.2	.8	2%
entertainment	20	13	33%
education &entertainment	9.4	8.6	18%
Education, politics, and entertainment	12	3.7	16%

Table six shows students frequently visited websites and the information that they are seeking. Undergraduate students mostly look for information that is related to entertainment than post graduate students. On the other hand, post graduate students look for information which is related to academics. For instance, 26 % (bachelor), 29 % (master) and 40 % (PhD) students surf Internet to search educational information. In addition, 42% bachelor, 24% master and 15% doctorate students visit entertainment sites. Moreover, students download music and games than educational materials and software's. 47% students download music and 26% download games. Only 18% download educational materials. There is a difference between female (32%) and male (25%) students in music downloading rate. Men spend more time on downloading and playing games online.

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Table 7: Which Means of Communication Tool is Easy to Communicate Socially?

Telephone	55%
Internet	45%

From this table we can see that most students believe that telephone is easy and convenient to communicate socially than Internet. Among those students who responded Internet easy to communicate socially, they use

- 22% email,
- 3.5% instant messaging,
- 4.4% chat rooms,
- 2.9% web boards,
- 2.4 %email and instant message,
- 3.9% email and chat room and
- 7.2 %other (ICQ, QQ).

Furthermore, for the question,

With whom do you communicate most on internet? they responded

- 52% with friends
- 0.9% families
- 2% professors
- 2% romantic partners
- 6% families and friends
- 3% friends and professors.

E-mail - a generally unknown communication tool only a decade ago- is used now daily by a lot of people in the world as means of communication. E-mail, perhaps the most basic online services, continue to grow beyond all the expectations and with the rapid expansion it comes with question about how interpersonal communication and education are changing. As is mentioned in the above, electronic mail is the service that most students use to communicate socially and for academic purpose. 23%, 32%, 18% and 27% students have one to four and above email addresses respectively. Experienced Internet users have multiple email addresses to use it in multitasking activities than that of novel users. 46%,13%, 5%, 7% and 29% students check their e-mails everyday once, twice, threes , four times and occasionally(when needed) respectively. Majority of the students check their e-mails at least once in a day.

Table 8: Do You Communicate with Your Professor or Teacher?

	m	f	
Yes	23.9	20.7	45%
No	37.5	17.96	55%

Education level	Yes	No
Bachelor	38.5 %	61.65%
Master	46.7 %	53.7 %
PhD	75 %	25 %

The above tables depict the number of students who do communicate with professors or teachers in sex and education level. Forty-five percent students communicate with professors online. There is no any significance difference between male and female students who communicate on the Internet with their teachers. 38.5% bachelor, 46.7% and 75% doctor students communicate online with their professors. There exists a significant difference between graduate and under graduate students online communication. From the above figure, students use different communicating tools to communicate with teachers. They use 37%email, 1% instant message, 0.3% chat

room, 0.3% email and instant message and 0.3 % email and chat room. Also, students who communicate

Table 9: When do you Communicate with your Teacher?

When I've got some difficulties in my coursework	12.6%
When I failed to do my assignment or homework	0.78%
When I need some advice/guidance	10.78%
When I need to submit paper/assignments	10%
When I want to know/discuss my grades/results	1.5%
When I have got some difficulties in my course work and when I need advice/guidance	3.4%

through email with teachers are asked when do they frequently communicate with professors. 6.7 once a week,6.7 twice a week,3.5 once in two weeks,5.7 once a month, 6.2 once or twice a semester and 10.6 other(occasionally, when it is necessary etc) percent students communicate with their teachers using email. However, insignificant number of students use instant message to communicate with professors. Students usually send message for teachers when they encountered some difficulties in their course work, when they require advice and to submit papers. E-mail allows them to turn in assignments 10%, to get some advices or guidance10.78%, 12.6% to get help from the teacher on the particular course. Students mainly used electronic mail when they require assistance from the teachers and when they are directed by teachers: returning assignments and arrange an appointment to face to face interaction between the advisor and advisee (graduate students), in addition to seeking advice and help in course works.

Table 10: Which Communicating Tool do you use to do your Homework Online?

email	34.5%
Instant message	6.7%
Chat room	4.5%
Email & instant message	11%
I don't use any	43%

Students use the traditional method to do their homework rather than doing online. According to the aforementioned table, only few students are using Internet to do homework. Particularly, undergraduate students rarely use the Internet to do assignments or homework online. Even graduate students use traditional method (paper-pencil) to do so. This reveals that teachers are mostly rely on textbooks rather than Internet; and there might no integration between the curriculum and Internet.

Table 11: With whom do you communicate with Instant Messaging

Families	4.06%
Professors	2.34%
Classmates	10 %
Friends	54.8%
Romantic Partners	5.6 %
Classmates and friends	13 %
Others	6.8 %

The table shows the students usage of IM (instant message) to communicate socially. Students use IM principally to exchange messages with friends 54%

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rather than families and professors. There is no any gender difference and no difference in education level in using and sending IM, however, men slightly differ in spending more time than women. Similarly, undergraduate students spend more time on using IM than its counter parts.

Table 12: Which one do you use to Search Information?

Internet more than library	40%
Internet and library about the same	31%
Library more than Internet	29%

This table expresses student usage of Internet to find useful information that assists their education. More students use Internet to seek additional readings than library. Graduate students largely depend on Internet to look for information. In contrast, undergraduate students rely on library for searching information.

In addition, students were asked whether teachers provide assignments that need Internet or not. 41% students answered, teachers provide assignments that require Internet, but 59% said 'no'. Among the students who responded 'yes', post graduate students surpass in number than under graduate students. Similarly, senior students are more likely do their assignments/home works online than that of freshman and sophomore students in all levels. Moreover, only 25% students said teachers encourage students to use internet to acquire more knowledge and to fill the gap that is not covered in the classroom presentation. According to the students' response, teachers who have website/home page upload their notes and assignments on their page and site and give URLs as a reference. This makes the student to surf the Internet besides face to face interaction. Postgraduate students mainly share files and articles with friends and professors.

Students also said taking courses online is convenient and free, even though no one had been taking any. Most respondent explained, the speed of the Internet, viruses, hackers, time consuming, uncertainty of information, a lot of advertisement and inaccessibility of information freely deter them when they browse Internet. Specially, the speed is very dissuading to use internet because of its slowness.

Obviously, Internet provides a lot of latest information afar textbooks, so internet is a good tool to get new and update information. 9% of the students believe that Internet is helpful to achieve a good result on standardized exams. On the contrary, 89.5% argued that even if internet is a vital instrument to get new information, it does not have any effect on achieving good results on standardized exams.

Students' explain the use of Internet in education. It makes the world nearer and narrower to everyone who has the access to it. Alike other disciplines, Internet contributes a lot to education. Internet helps to download educational materials (software, tutorials, lecture notes, articles and etc), attending online seminars, participating in online projects, to conduct a research .It also shorten the distance between professors and students. Generally, Internet makes educational resources easily accessible, appealing (supported by multimedia).It assists many people to learn at the same/different time in the same or different places according to their ability, interest and pace.

Lastly, students' were asked what will be the effect if they do not use Internet, and whether they encounter any problem on their academic performance. Majority of the students (undergraduate and postgraduate) explained, Internet has no huge influence on their academic achievements and they can count on by other means.

Nevertheless, few students' responded, Internet will affect the teaching learning process.

"Of course, Internet has become part of my life, without it I'll feel uncomfortable. What shall I do? At the time when I regularly use Internet? I don't know. It connects me the outside world." 1st year undergraduate student.

"I can not imagine now if I can not access internet. It helps me greatly not only in finding useful information but also giving me a happy mood to accomplish my work." 3rd year PhD student.

Conclusion

Internet is a functional tool for communication socially and for academic purposes. At present, students at any level hinge on Internet to acquaint themselves in the dynamic world. Internet is a fast, convenient and up-to-date instrument to accomplish academic or social task of students. This part presents summary and conclusion of the study.

Students' Internet Usage: Not surprisingly, all the students in HUST use Internet. 56% of students own their own personal computer. The main place of using Internet is school laboratory that make them to access domestic and outside. About fifty-six percent spend one our everyday on surfing Internet. Experienced university student spend more time online than novel users. Educational level has an impact on the amount of time the university students spend on Internet usage. As discussed on the foregoing section, undergraduate students use less time online than graduate students.

The university has made the Internet widely available to students; as a result, the expense of Internet is very few. Therefore, three-fourth (75%) of the students spend 0-50 Yuan per month. This figure includes free access of students' usage of Internet.

Furthermore, post graduate students mostly surf Internet to seek educational information (29% master and 40% PhD).On the contrary, undergraduate students visit mainly leisure or entertainment sites (42%). 47% of students download music, 26% download games. From these females take the priority in downloading and listening online music. And men download games. Further, 55% students said that telephone is convenient and safe to communicate socially. On the other hand, they who use Internet as a social communicative tool, use e-mail (22%). They usually draw email on to communicate with their friends.

Academic and Internet: University students seem generally positive about the Internet and its impact on educational experience. But the usage of the Internet on academic purpose is very limited than social activity. The study found that Internet in HUST is employed for interpersonal communication than sharing experience on education sector. This implies that students either have no enough training on how to use internet or the courses might not interrelated with the Internet.

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Only 45% students communicate online with professors or teachers. The study reveals that gender has no any influence on teacher-student online communication. However, postgraduate students frequently send messages on Internet than undergraduate students.

Electronic mail allows them to turn assignments, communicate with professors, peers and parents at any time, day or night and maintains contact easily with friends from home and another school (Pew Internet and American Life September 15, 2002). E-mail is, the main tool, employed with students to transfer information for teachers/professors. They said teachers also utilize e-mail to disseminate information for his students, particularly to communicate class announcements and offer online assignments and tests. But only, 6.7% of them communicate once a week through email. 10.7 % write email to teachers occasionally. They explained the reasons that they send electronic mail to professors are: when they have encountered some difficulties in their course work (12%) plus when they need to submit term papers or assignments (10%). For graduate students beside the above causes, when they require guidance/advice about their project (thesis/dissertation) they send e-mail messages to their advisors or teachers. Moreover, 48% students replied they do not do homework online rather they use the traditional method. 54.8% use IM to contact with friends. Most students (40%) use Internet to look for academic information.

Teachers who have their own course homepage/websites encourage students to use Internet to facilitate the instruction process.

Generally, students spend more time for entertainment rather than academic purpose. So, the impact of Internet on education is weak particularly for undergraduate students.

Finally, to improve the deprived usage of Internet,

- The school may create online projects that can participate the school society as well as link the websites with famous national and abroad university projects. This may promote the Internet usage of students for learning.
- It seems sound if departments or particular teachers create course homepage that can offer additional materials to students to facilitate face-to-face instruction.

- If teachers have no enough exposure on how to integrate the course with the Internet, it seems evocative that concerned departments (computer science etc) develop software and give seminars/workshops.
- Create online discussion forum that can participate both students and teachers and others to share their experience on various topics.
- Orient new students on how to use find information (educational) on the Internet.
- Encourage students to conduct research and upload it on the course home page or educational website of the school.

The writer thought these recommendations may change the students' internet usage on education.

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