ANALYSIS OF INTERNET ADDICTION AMONGST UNIVERSITY LEVEL STUDENTS

MUHAMMAD WASEEM IQBAL[1], MISBAH NOOR[1] AND NATASH ALI MIAN[2]

[1]Department of Computer Science & Information Technology
The University of Lahore, Lahore, Pakistan
muhammad.waseem@cs.uol.edu.pk, misbahnoor26@gmail.com

[2]School of Computer & Information Technology
Beacon house National University, Lahore, Pakistan
natash.ali@bnu.edu.pk

Abstract. *A collection of different interconnected small or large networks is called an Internet. It is a speedy high way that connects multiple regions. Each region can have one or more than one networks. Internet has become more influential tool to minimize the communication gap all over the world. Internet service providers (ISPs) are providing cheap, fast and good communication services now a day. Today's technology is playing important role in the growth of Internet users. The easy and cheap availability of computers, laptops, mobiles and Internet services may cause for Internet addiction. Internet addiction refers to extreme use of Internet which seems unmanageable in routine life matters, health, attitude, and relationships. Too much use of Internet affects the students spiritually, emotionally, morally and educationally. We have investigated the relationship between problems and measures of Internet addiction among 1000 university level students in the current study. Data was collected through questionnaires filled individually by every student. Results indicated that a large number of students waste their time on chatting and visiting useless sites. Moreover, interpersonal, academic and health problems were found. The reasons of positive and negative impacts of Internet addiction were also found. Survey showed that number of students was unaware to use the Internet properly. It was observed that the male students were more Internet addicts than female students.*

Keywords: University Students, Internet Addiction, Attitude, Internet Usage.

1. INTRODUCTION. Internet is a global computer network system that connects millions of people at a time. An Internet is a combination of several networks that are interconnected by bridges and/or routers. It uses advanced technologies standards and protocols. Throughout the world, Internet is responsible for hosting and delivering of services. The transferring of gigantic Internet services is creating confidence for service providers and caused for the growth of Internet in all sectors. The key elements of Internet are hosts, network, LAN, WAN and routers. Hosts which are also called end systems include mainframes, servers, workstations and PCs. These hosts are mostly use Internet connected through the local area network (LAN) or wide area network (WAN). These two or more networks are connected directly or indirectly to a router. On the Internet a host sends data to another host anywhere and data breaks into the sequence of packets, called IP datagram's or IP packets. Each packet has unique numeric address which is called IP address [1]. The Advanced Research Projects Agency Network (ARPANET) created the history of computer network. In 1960s, United States, Department of Defense (DOD) gave birth to the Internet [2]. All the countries throughout the world almost use Internet in every field of life. This amazing communication system came into being in 1969 [3]. Since the mid 1990s, Internet has become very important due to its easy accessibility. In a study conducted in 2007 by Norton it was concluded that approximately one fourth of the world's resident's use the services of the Internet [4]. The Internet has grown up to be one of the most admired media for communication. This media have utilized excessively by young people and teenagers to communicate with each other. The weighty use of the Internet produces negative effects in all areas and causes for the problematic Internet

use [5]. The study shows the impacts of Internet addiction at university level students. Aggressive use of Internet can cause to disturb the social life (relationship with family, friends, colleagues and neighbors), health (headache, backbone and eye side issues), attitude (mood, anxiety and depression) and study (classes, exams, quizzes, assignments and grades). Internet addiction effects overall on behavior, emotions, personality and ethics. Balance use of Internet can produce good and healthy results. This paper is formalized in following sections: Literature review is discussed in section II. Internet addiction is described in section III. Advantages and Disadvantages of Internet are described in section IV. Section V has objectives of study. In section VI method, procedure, research instrument and data analysis is given. Results, findings, conclusion and recommendations are given in section VII. Section VIII has references.

2. Literature Review. Internet is heavily used communication tool through out the world. It accommodates the users to provide the access of thousands multiple web sites as well as audio and video communication. It was concluded that teenagers from sixteen to eighteen years old are more Internet users, while the percentage of male students is higher. Most of the students waste their time on Internet by visiting useless or irrelevant sites [6]. When we see the situation of depression, loneliness, sensitivity, sickness, and personality problems, then we can say that excessive Internet users exists [7]. In Singapore, 84% of 10-14 years aged, 64% of 15-59 years aged, 21% of 60 or more aged persons use internet. Out of the percentages given above 96% use Internet applications, 89% use the web for information taking, and 61% of the individuals use the Internet for enjoyment [8, 9]. Furthermore, it is defined that the level of Internet addiction (LIA) of male students was higher who spent more than eight hours on the Internet and the efficiency of students of relevant department also affected [10]. Moreover, it is claimed that the meaning of term Internet addiction is very wide; it covers multiple types of behaviors. It is further categorized into five subtypes as: (1)- cyber sexual addiction: in which addicts usually involves in adult websites. *"Cyber sex, Cyber porn and pornography"* are the terms use for online sexual addiction, (2)- cyber relationship addiction: In which addicts usually involves seriously in online relationships, (3)- net compulsion addiction: In which addicts usually involves habitual, consistent and uncontrollable online activities such as gambling, shopping, trading, bidding and auction, (4)- information overload addiction: In which addicts usually involves in searching or visiting the different websites, data and material, (5)- computer addiction: In which addicts usually involves in computer game playing [11]. Internet is an essential part of people's daily life. Internet considers much reliable source of communication so people are becoming more dependent on it day by day. As dependency increases, the problems associated with excessive use of the Internet are also go up [12]. The Internet addiction affects directly on depression, anxiety, and stress which is vulnerable [13]. Educators and psychologists are well aware about the negative impacts of physical and psychological problems. The users who are Internet addicts experience academic, relational, economic, occupational and physical problems. Extreme use of Internet increase psychological problems like depression and loneliness. Addicted Internet users were more depressed than non addicted Internet users [14]. Internet is a significant instrument for youth in this modern life at all levels of schools, colleges and universities. It is observed that Internet addiction exists in every group of age. The ratio of Internet addiction is greater in youth at 15-20 years old. The percentage (21.4% of 15-20 years, 13.3% of 21-25 years and 17.5% of 26-29 years) shows the Internet addiction among university level students [15].

3. Internet Addiction. Internet users are increasing very rapidly daily wise. Internet provides services to communicate with each other through any transmission medium. Internet access is very easy and not much costly in this modern technological world which is major reason of increment in Internet users. Internet addiction is a difficult and vast term so that we can not find out the exact definition of addict. Generally it is defined that when users involve using the Internet excessively is called Internet addiction. Academia's and clinicians are still discussing the term Internet addiction, because of the lack of evidences, level of consistency, and criteria of medical judgment [16]. Moreover, it was found that extreme use of Internet which creates disturbance and mismanagement in user's routine life is called Internet addiction [6]. Furthermore, addiction is defined as a "brain disease" that is uncontrollable and needless behavior. Sometimes it creates harmful, dangerous, and critical situation for user [17]. The excessive Internet use can affect on performance at school, college or university level students, studies of these students can disturb, public relationships can upset, and mental condition can reduce [18]. The term "problem Internet use" has defined that is sudden or unexpected operation without thinking about the results. Internet addicts do not bother that what is happening around. They totally cut off from society, neighbors, friends, and relatives. Even they ignore their own family members and important functions like marriages, birthdays, and death ceremonies. It is called social loneliness. They always look misery, hopeless, and unhappy. Addicts face psychological suffering like mental disability, depression, and abnormal attitude [19, 20, 21]. It is very difficult to find out the actual addict specifically. Internet addiction is a phenomenon in which user can be addicted of gambling, games, shopping, research, and pornography. Some users may addict of more than one category [22, 23]. The heavy use of Internet creates

disturbance in daily life, mishandling of routine matters, and mismanagement of work. This situation is defined as Internet addiction disorder [24]. There is no country in the world where Internet is not available. Organizations, companies, industries, government sectors, private sectors are becoming dependent on Internet due to its reliability. So it is defined as Internet dependency [25]. Online audio or video chatting is a great feature of Internet. Mostly youngsters use this facility and waste their lot of time. These online lovers create romantic and emotional relationships which can affect the youngsters emotionally [26]. It is defined that Internet addiction affects the personal relationships, gender communications, and all related things [27]. It is also said that addiction may be related with any matter or action [28]. Additionally, it is defined that people are said to be "addicted" to food, smoking, gambling, shopping, work, play, and sex [29]. Moreover, it is concluded that any one can involve in addiction because of easy, fast, cheap, and latest technology so that the Internet addiction is a type of technological addiction [30].

4. ADVANTAGES AND DISADVANTAGES OF INTERNET. Internet is a big achievement in this modern world. It has some advantages and disadvantages. Internet provides the facility of any type of information. Sending and receiving of messages, electronic mail (E-mail), voice, video and pictures are the best features of Internet [31]. It facilitates businessmen and commoner for E-commerce, E-banking, E-business, E-trading, E-shopping, and E-retailing. Many educational institutions provide online admissions and results because of Internet. It also provides online facility of job vacancies, diseases, medicines, and medical problems. Online facility of books, research, course material, journals, research conferences and video lectures are available. Internet accommodates many students by providing online education system such as distance learning is also available. Online entertainment, chatting, encyclopedias and newspapers are also added to the value of internets [32]. Disadvantages of Internet can vary person to person. Wrong information, wastage of time in chatting, hacking and entertainment are major disadvantages of the Internet. Internet provides useless effort in searching of social websites and immoral websites. It also affects social, character, moral, and ethical values. Furthermore, both male and female university level students can severely disturb through the unnecessary use of Internet [33].

5. OBJECTIVES OF THE STUDY. The current study investigated to find out the relationships between the problems and measures of Internet addiction. The intensity of Internet addiction amongst male and female students has been discussed. The suggestions are also given to improve the positive use of Internet, positive and negative impacts of Internet addiction amongst University level students.

6. METHOD AND PROCEDURE. The targeted population in this study was the university level students. We selected a small sample of 1000 students from multiple universities of Pakistan. In this investigation 625 male students and 375 female students were selected for the analysis. Sample was selected randomly to get better and efficient results.

6.1. RESEARCH INSTRUMENT. After reviewing the interrelated and important literature, a questionnaire on a five point Likret scale was developed to collect the data. The questionnaire included twenty seven questions which were carefully drafted according to the psychology of university level students. Questionnaire was simple and understandable, which was the clarity of questions so the students could easily understand and answer them.

6.2. DATA ANALYSIS. To evaluate the data, responses of the students were changed into numerical scale according to the description; Agreed = 5, Strongly Agreed = 4, Undecided = 3, Disagreed = 2, and Strongly Disagreed = 1. The data was evaluated by using percentage and standard deviation. A single table was generated for overall analysis. The analysis of each question gave a common representation of the existence of the level of Internet addiction amongst University level students.

7. RESULTS. All the questions included in the questionnaire were analyzed individually. It was very difficult to explain all those results separately in 27 tables. So a consolidated result of the analysis of Internet addiction amongst University level students is given in a single table.

In given table the figures in the parenthesis represent the percentage.

Table 1. Showing the results of Internet use at university level students (n=1000)

Sr.	Statements	5	4	3	2	1	SD
01	Do the use of Internet give you pleasure?	217 (21.7)	423 (42.3)	154 (15.4)	109 (10.9)	97 (9.7)	0.107
02	Do you feel dissatisfaction when Internet is not available?	181 (18.1)	124 (12.4)	109 (10.9)	155 (15.5)	431 (43.1)	0.107
03	Do you use Internet to complete your assignments, home work, and lectures?	215 (21.5)	397 (39.7)	194 (19.4)	105 (10.5)	89 (8.9)	0.107
04	Do you like to use Internet alone?	132 (13.2)	702 (70.2)	47 (4.7)	76 (7.6)	43 (4.3)	0.115
05	Do you use Internet for Entertainment?	170 (17.0)	300 (30.0)	107 (10.7)	210 (21.0)	213 (21.3)	0.100
06	Do you use messengers, chat rooms and face book?	234 (23.4)	399 (39.9)	69 (6.9)	139 (13.9)	159 (15.9)	0.104
07	Do you forget your hunger, sleep, work and studies when you engage on Internet?	241 (24.1)	174 (17.4)	58 (5.8)	277 (27.7)	250 (25.0)	0.100
08	Does your social life and daily routine affect due to the excessive use of Internet?	195 (19.5)	191 (19.1)	123 (12.3)	294 (29.4)	197 (19.7)	0.100
09	Do you remain restless and lazy due to excessive use of Internet?	252 (25.2)	233 (23.3)	77 (7.7)	215 (21.5)	223 (22.3)	0.100
10	Do you want to see or download porn sites?	121 (12.1)	115 (11.5)	258 (25.8)	217 (21.7)	289 (28.9)	0.104

7.1. FINDINGS. Findings which have been concluded on the basis of current analysis are showing different levels of intensity of Internet addiction. It shows that most of the students feel pleasure when they use Internet and some students feel dissatisfaction when Internet is not available. Most of the students use Internet for their studies like assignments, home work, and lectures. Majority of the students who are involve in using Internet heavily are very conscious and touchy, they do not like to use Internet with friends or any family member. Maximum of the students claimed that they do not forget their hunger, sleep, work, and studies when they are engaged on Internet. It is normally observed that the use of porn sites is very high in students, but they claim that they do not want to see or download porn sites mostly. It is also claimed and disagreed by the majority of the students that they do not neglect their social life, daily routine, and student life due to excessive use of Internet. Approximately one third of the total students agreed that they remain restless, lazy, and impatient when they use Internet for long hours. One third of the

students use Internet for their satisfaction, chatting, and entertainment. Moreover, the use of social sites is very large so maximum of the students use messengers, chat rooms, and face book.

7.2. ADDITIONAL FINDINGS. On the basis of current analysis we have concluded some additional findings. Most of the University students waste their time on Internet. Male students are more Internet addicts than that of female students. More than 70% students want to make associations and friendships through Internet. Only one third of the students want to use Internet with their friends. Only a few students use Internet for research, reading books, journals and news papers. Almost 30% of the students are Internet addicts. They use Internet 40-50 hours weekly. More than 50% students want to use Internet at night while they are at their home. More than 50% students use Internet less than eight hours daily. Most of the addicts suffer from serious mental, psycho, health, study, and social problems. Departments related to science and technologies found more addicts.

7.3. CONCLUSION. We concluded that students remained sleepless, continue restlessness may cause depression, sickness, weakness, and due to excessive use of Internet. In extreme cases, students use cigarettes and tea for longer use of Internet, it may cause headache, backbone, and eye problems. Relationships also affect such as parent-child, teacher-student, and close friends. Students involved in Internet addiction can ignore important activities and events. Online relationships create lot of problems. Most of the addicts suffered from academic problems like: study decline, missed assignments & quizzes, short attendance, late comer, low grade & exam failure. Online entertainment like games, movies, dramas, tournaments, and porn sites affect the students.

8. RECOMMENDATIONS. Internet is a wonderful way of communication in this modern world. It becomes very important part of human beings life. The University level students should get maximum benefits from the Internet. They should not visit unimportant sites to save their time. They should avoid using the Internet excessively for the sake of education, health and better career. Students should be aware the use of negative and positive impacts of the Internet. Many students waste their time in visiting the unimportant web pages; one of the main reasons is the lack of awareness/knowledge of use of positive resources available on the Internet. Hence, Universities should conduct counseling sessions for the students to make them aware of the hazards use of Internet, also positive use of Internet should be encouraged.

REFERENCES

[1]. William Stallings, (2011). Data and Computer Communications (Eighth Edition). Prentice Hall International.

[2]. Mustafa, T *et al,* (2008). A Text Book of Computer Applications in Business. Lahore, IT Series Publications.

[3]. Forouzan, B.A. and Fegan, S.C. (2004). Data Communication and Networking (3rd Edition). Network, McGraw-Hill Companies, Inc.

[4]. Norton, P. (2007). Introduction to Computers. New Delhi, Tata McGraw-Hill Publishing Company Limited.

[5]. Ju-Yu Yen, Chih-Hung Ko *et al,* (2008). Psychiatric Symptoms in Adolescents with Internet Addiction: Comparison with Substance use. Journal Compilation, Japanese Society of Psychiatry and Neurology.

[6]. M.Javed and M.Waseem Iqbal, (2010). A study of Internet Addiction amongst College level Students. Proceedings in 2nd ICBTE at Iqra University Islamabad Campus, Pakistan.

[7]. Brian Rotsztein, M.A. (2003). Problem Internet Use and Locus of Control Among College Students, Preliminary Findings1, Lynch School of Education, Boston College, Poster Presented at The 35th Annual Conference of the New England Educational Research Organization Portsmouth, New Hampshire.

[8]. Infocomm Development Authority Singapore, (2006). Annual Survey on Infocomm Usage in Households and by Individuals.

[9]. Infocomm Development Authority Singapore, (2005). Annual Survey on Infocomm Usage in Households and by Individuals.

[10]. Ozlem Cakir Balta & Mehmet Baris Horzum, (2008). Ankara University, Journal of Faculty of Educational Sciences, vol 41, no 1, 187-205. The Factors that Affect Internet Addiction of Students in a Web Based Learning Environment.

[11]. Young, K. (1999a). Internet Addiction, Evaluation and Treatment. Student British Medical Journal, 7, 351-352.

[12]. Vijaya Murali and Sanju George, (2007). Lost online: an overview of internet addiction. Advances in Psychiatric Treatment, vol. 13, 24–30 doi: 10.1192/apt.bp.106.002907.

[13]. Ahmet Akin & Murat Iskender, (2011). Internet Addiction and Depression, Anxiety and Stress. International Online Journal of Educational Sciences ISSN: 1309-2707.

[14]. Mustafa KOC, (2011). Internet Addiction And Psychopatology. TOJET: The Turkish Online Journal of Educational Technology, volume 10 Issue 1.

[15]. Dr. Ramazan Hasanzadeh *et al,* (2012). The Prevalence of Internet Addiction among niversity Students: A General or Specific Problem. Islamic Azad University, Sari branch Iran. ISSN 2090-4304, Journal of Basic and Applied, Scientific Research.

[16]. Hong Kong King-wa Fu, Wincy S. C. Chan, Paul W. C. Wong and Paul S. F. Yip, (2010),Internet Addiction, Prevalence, Discriminant Validity and Correlates among Adolescents in the British Journal of Psychiatry.

[17]. Guangheng Dong, Qilin Lu, Hui Zhou, Xuan Zhao, (February 2011). Precursor or Sequela, Pathological Disorders in People with Internet Addiction Disorder.

[18]. Subramaniam Mythily, MBBS, MHSM, Shijia Qiu, BSc (Life Sciences), Munidasa Winslow,MBBS, MMed (Psychiatry), (2008). Prevalence and Correlates of Excessive Internet Use among Youth in Singapore.

[19]. American Psychiatric Association, (APA), (1994). Diagnostic and Statistical Manual of Mental Disorders (4th Edition).

[20]. Greenfield, D. N. (1999, August). The Nature of Internet Addiction, Psychological Factors In Compulsive Internet Use. Paper Presented At The Annual Meeting Of The American Psychological Association, Boston, MA.

[21]. Davis, R. A. (1999). A Cognitive-Behavioral Model of Pathological Internet Use (PIU).

[22]. Chou, C. and Hsiao, M. C. (2000). Internet Addiction, Usage, Gratifications, and Pleasure Experience. The Taiwan College Students' Case. Comput. Educ. 35(1): 65–80.

[23]. Young, K. S. (1996a, August). Internet Addiction, The Emergence of a New Clinical Disorder. Poster Presented At the 104th American Psychological Association Annual Convention, Toronto, Canada.

[24]. Goldberg, I. (1996). Internet Addiction Disorder.

[25]. Scherer, K. (1997). College life online, Healthy and unhealthy Internet use. J. College Stud. Dev.38(6): 655–665.

[26]. Quittner, J. (April 14, 1997). Divorce Internet Style, Time, p. 72.

[27]. Bellamy, A. and Hanewicz, C. (2001). An Exploratory Analysis of the Social Nature of Internet Addiction, A Research Paper Submitted To The Electronic Journal Of Sociology.

[28]. Hatterer, L.J. (1994). Addictive Process. In Encyclopedia of Psychology, Wiley, New York.

[29]. Truan, F. (1993). Addiction as a Social Construction, A Post empirical View. J. Psychol.127(5): 489–499.

[30]. Griffiths, M. D. (1998). Internet addiction, Does it really exist? In Gackenbach, J. (ed.), Psychology and the Internet, Intrapersonal, Interpersonal, and Transpersonal Implications, Academic Press, New York.

[31]. William Stallings, (2004). Computer Networking with Internet Protocols and Technology. Prentice Hall International. ISBN 81-297-0292-4.

[32]. P. Scheinder, (2011). Electronic Commerce (9th edition).

[33]. Laura Widyanto & Mark Griffiths, (2006). Internet Addiction, A Critical Review. Springer Science + Business Media, Inc.Int J Ment Health Addict.