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# Perception about the Internet among O-level's Students

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## Perception about the Internet among O-level's Students

### 1. INTRODUCTION

The future of any nation depends on mental and physical health of teenagers and children. Nations invest on education, health, and character building of teenagers for stability and development of the country. Children of 21<sup>st</sup> century; that the digital revolution era, are quite different from previous generations because of their vast exposure to ICT and rapidly growing communication. They use various electronic devices and electronic means of communication around them. Students are growing up in digital world and they are familiar with all digital technologies. Today's students have desktop, laptop computers, access to the Internet facility, cell phones, digital camera, digital TV, digital radio, digital libraries, digital clock etc. They understand the value of information and communication technology. Simultaneously they are users of such technologies and also they are active users of the Internet. This can be justified as (Cited in Yousaf, 2012.) that according to the Internet Service Providers Association of Pakistan (ISPAK), there were 7.5 Million users of the Internet in Pakistan in year 2012 and most of them happen to be young people. Similarly, in year 2013, this estimate has reached 25 million in the country because of broadband and mobile phone operators. (Ameen, 2013). Each facet of Pakistani young people lives i.e. education, entertainment, communication is based on the Internet and they feel very comfortable while accomplishing their task through it. According to Robinson (2008) the instant availability of the Internet-based information has changed young people ability to retrieve and evaluate information. Similarly, students cannot fulfill their work without using the Internet and web resources. This represents the high increase of the Internet use among young people of Pakistan. The Internet provides huge amount of information in variety of formats. It is the most significant means of communication. It keeps its users connected through email, chatting, online conferences etc. The most peculiar characteristics of the Internet are that it provides access to many other channels like e-books, e-newspaper, e-zines, digital libraries, information centre etc. We can say that it is a mother of all channels. It has tremendously increased dissemination and sharing of information but it is challenging to search on the Internet. It requires proper training and knowledge of web resources. The Internet literacy enables the students to access the information competently. According to Association of college & Research Libraries (ACRL) a division of American Library Association (ALA), explains in Presidential Committee on Information Literacy (1989) about the people who are information literate that they know how to search information, organize knowledge and how to use it for the specific purpose. Hence, in the 21 century internet has become the source of independent and lifelong learning.

Generally the term "Perception" means an immediate awareness to perceive something is to become directly or immediately aware of it." (Hatfield, Gray C., 1985, p.689). However, the being immediately aware or being directly experience of having something may hide the fact that much of the perception depends on background knowledge, training and assumptions. "In Philosophy and psychology the word perception means the sensory acquisition of knowledge. If knowledge of what is sensed is absent then in this technical sense there is no perception of the object." (Dretske, Fred I., 1986, p.574).

According to (Large, 2005) "Unfortunately there are few published studies of children's web use in a developing country." Many studies have been conducted on the Internet use in Pakistan but on the perception of internet there are few published studies. The sample of children and young people of 15-17 ages has been neglected group in research. However, Imran (2014) conducted a comparative research on the perception of cyber bullying from the Swedish and Pakistani students (age 15-16 years) in both countries. The cyber bullying is one of the disadvantages of the Internet. In this study quantitative and qualitative data has been analyzed for the reasons and impact of cyber bullying on girls.

The results of this study have implications for parents, teachers, and librarians in guiding and educating children and teens about the Internet efficient use of interest. It is the first ever work on Pakistani students through the qualitative examination, which explored the perception of students (age 15-17 years) on “the Internet” as whole; including the perception on “the Websites.” The Internet is a universal network connecting millions of computers, where a user who has permission at any one computer can access and obtain information from any other computer within the network. “Websites are one of the more popular global network services on the internet and are sometimes referred as web services.” (Shelly et al. 2008 cited in Alshahrani and Ward 2014). Both the terms have different meaning but they are linked with each other. The Internet is the fundamental structure that provides electronic communication. It is a large container and the Websites are the part within that container. The Websites or Web services utilize that fundamental structure to offer contents, document, mate data’s and multimedia etc.

### **1.1. Research Questions**

- What are advantages of the Internet according to the perception of students?
- What are disadvantages of the Internet according to the perception of students?

### **1.2 . Objectives**

The main purpose of the study is to explore the Pakistani students’ perception about the Internet. It focuses on advantages, disadvantages, and usefulness of the Internet in communication, education, and entertainment which student’s percept.

## **2. RELEVANT STUDIES**

Everything has positive as well as negative aspects. The Internet has opened up the broader dimensions of information environment. A basic overview of the literature was offered by Leino (2006), which examined student’s perception about both advantages and disadvantages of the Internet. Students perceive the Internet as a source, which provides substantial amount of information in multiple formats. Moreover, it has made communication possible around the globe. The youth understand that without having adequate searching skills, it is difficult to search required information. They are well aware about trust less and unauthorized information and perceive it harmful for minors. To review the literature on the use of the Internet by Pakistani young people the authors finds out the study of Yousaf (2012), who resulted both positive and negative use of the Internet by Gujarat city, Pakistani young people. This research also reveals the impact of the Internet on their relationship, as they use net for entertainment purpose as compared to education or information. They do not visit their families and friends the reason being they have to chat with online friends. Their habits of watching TV reading newspaper have changed. However, Rainie & Hitlin (2005) results inform that both parents and teens (12-17 years old) view that the Internet is an important tool in education. Teens search online information for school assignments, which increase their knowledge, but both said it is also used for cheating. 57% search information about schools, colleges, and Universities. Majority of the students especially girls use it for instant messaging.

Specifically, to examine the literature on the disadvantages or on harmful effects cost on young people using the Internet. The mental health problems have been addressed by Chadwick (2014), who stipulates that young people who frequently make use of the Internet may feel depressed, anxiety and lower self-esteem, because of effects of social media (FACEBOOK, TWITTER, YAHOO, etc.) on their lives. They spend more time on gaming and messaging and emailing on social networks. Livingstone (2014) conducted a research with the sample of European 9- to 16-year with an open-ended survey question. Theses children reported the negative effects like Pornography by 22% of children, cyber-bullying (19%) and violent content

(18%). Similarly, Leung & Lee (2012) find out the Internet addiction symptoms among Hong Kong children of 9-19 years old. Results show mostly the Internet addiction symptoms were found in male young students of low-income families. They are more comfortable to socializing online rather than meeting people off-line; second, they felt lost or depressed if they could not go online. Their academic performance declines because of leisure based the Internet activities. Moreover, excessive use of the Internet causing ordeal in teenagers routine life. Young (1998) study formulated IA measuring scale. The same test was conducted by Aslanbay, Aslanbay & Cobanoglu (2009) to measure the Internet Addiction (IA) and preceding factors i.e. demographics, time spent, purpose of use, the Internet gratification factors among students of Istanbul High School students aged (15-18). Results show that the youth of Turkey has been using the Internet increasingly, which resulted in a loss of productivity in the personal and professional lives. Increasing time of the Internet use is alarming and ethical considerations are uncertain for the planners and academician. Previously, Dunkels (2008) investigated the strategies of 12-year-old children adopted to cope unwanted content and other negative aspects of the Internet. The results specify unwanted contents are the most negative aspect of the Internet but children are conscious and handle the problem properly. Besides the children face many online problems; both legal and ethical nature not necessarily technological. This problem poses responsibility of adults to support children in handling of these problems. However, Cho & Cheon (2005) suggests that negative effects of the Internet can be controlled through increasing involvement of parents on the Internet usage through co browsing, shared web activities and skill and knowledge about the Internet. This study investigated the effect of family context factors i.e. family cohesion, shared Web activities, parents' the Internet skill, and parents' perceived control on children's exposure to negative the Internet content. Male children are more involved in negative content as compare to female.

Liu (2010) compares the use of the Internet between Chinese and Norwegian high school students. The study reveals Chinese students used the Net for restricted purposes as compared to the Norwegian students. The Norwegian high-school students use the Net for improving academic performance and performing everyday life routine. Whereas, Chinese students hesitate to use the Internet for education, they use it for leisure purpose as a toy. They consider that the conceptual learning of contents of books and exercises for practice is enough for academic performance.

The Internet is a tool, which provides access to other information channels and resources. Through shift of paradigm, the Internet has changed the searching behavior. Spink et al. (2010) investigated the web searching behavior and tech-no-literacy of young students. The study reports that the students involved in successive searching, multitasking and query formulation and reformulation in case of search are not successful. They face problems in spelling while creating web queries. Similarly, Fidel et al. (1999) explored the searching behavior of high school students by field study method. The results pointed out that training of students and teachers is essential for efficient utilization of web resources. The students have clear perception about advantages and disadvantages. They believe that the Internet provides easy access to information as compared to libraries. They mentioned that the under construction sites; limited searching skills and long protracted time are the disadvantages, which dissatisfy them.

Druin et al. (2009) research investigated the information seeking strategies of 7, 9 and 11 years old. They are not expert searcher. They use limited search strategy, weak in query formulation, mostly dependent on search through keyword interfaces. Obtained results indicate children largely face typing and spelling problems in searching process they are not much proficient in complex nature of searches. Previously, Gunn & Hepburn, (2003) has studied under the same topic with the sample of twelfth grade students. It included knowledge of World Wide Web, the Internet information seeking knowledge, and students' perceptions of their ability to locate information on the Internet. Students are not much proficient in search strategies. They usually search through Google by keyword. Their search competency is limited because majority of the students learn by themselves.

A number of studies have been conducted on the Web searching behavior, searching strategies but few of them were found on the Internet positive as well as negative perceptions. With respect to the Pakistani young people perspective, this research is first in an exploratory study on the perception of the Internet.

### 3. METHODOLOGY

For probing, the perception of students the school which was one of Beacon House Group situated in Karachi.; adopted Cambridge education system and affiliated with the Oxford University of British Government. This group is running many schools in nine countries. Karachi is the largest and metropolis city of Pakistan. It is a hub of industrial, educational, and social activities of Pakistan. It represents citizens of all the provinces of Pakistan. All types of facilities i.e. technological, educational and others are available here. The schools of this group belong to upper level private school. Level of school was decided on the bases of fees structure and facilities provided. They are providing library, laboratories, computer, and IT facilities. Computers are upgraded time to time to introduce latest technology. Computers are available to each student in library and computer lab.

The selection of this school was made because in this education system projects and assignments are an integral part of curriculum. Students cannot undertake projects and assignments without the help of the Internet. Total 40 participants were selected randomly who were the Internet user. They were students of 9<sup>th</sup> and 10<sup>th</sup> grade of O level. Equal numbers of students were preferred i.e. 20 from each grade. All are in the age group of 15-17, years of both genders.

Data were collected through 40 students. For the explanation of research findings, respondents are coded as:  $G9S_1$ , which indicates Student 1 from grade 9. Similarly for the Grade 10 students codes are made such as,  $G10S_2$  which indicate Student 2 from grade 10.

Face-to-face interview method was especially helpful for this research to explore perception of the Internet as a channel of information. Firstly, an interview guide was developed for data collection. (See, Annex 1). Interviews were conducted in school library. Librarian and teacher of computer studies administered the interviews. Students showed great interest in giving their views. The interview started with general question for example grade, age experience, and frequency of the Internet use and time spent on the Internet. These questions were asked for the reliability of data gathered through interviews. The Internet use was also verified through computer teachers. Students were in a habit of discussing their problems with computer teachers regarding the Internet searching. They inform they make assignments and projects with the help of information obtained from the Internet. Then, questions were asked "What are the advantages of the Internet, in addition, what are the disadvantages of the Internet? What are its usefulness in education, communication and entertainment? (See, Annex 1.)

These interviews were recorded on tape and then recorded interviews were transcribed later for in-depth analysis. Data were analyzed by both methods qualitative and quantitative. Close ended were analyzed quantitatively and Open-ended were analyzed by Grounded theory method. Analysis was done in five steps 1. Close examination, 2. Reduction of unnecessary detail, 3. Coding of data, 4. Interpretation of theme, 5. Concept mapping.

By the Grounded theory method, extensive data were collected. The collected data were transcribed and then read repeatedly. The sentences in which unnecessary detail or repetition were traced out and were shifted from the data. Data were closely examined and then different themes were identified from the transcribed data. These themes were coded by open coding method. In open coding, the codes are suggested by the researchers' examination and questioning of the data. (Rubin & Babbie 2005, p. 395). Themes were interpreted and find out the

meaning between the lines and then describing the phenomena. Concept mapping is the graphical display of concepts and their interrelation useful in the formulation of theory. (Novak & Cañas, 2008). Concept map has been drawn in both explanations of perception of advantages as well as disadvantages of the Internet as an information channel. (See figure: 1 & 2).

#### **4. RESULTS**

Some quantitative questions asked about available facility of the Internet, their experience of the Internet use and how much time they spent on the Internet. Results reveal all students 100% have the Internet facility at their homes whereas 45% also use the Internet in school computer lab and school library. Only 12.5% students rarely use the Internet at cyber cafes or at their friends or relatives home. These results substantiate the available facilities and use of the Internet among students.

The level of experience of the Internet user and duration of time spent on the Internet play an important role in perception development. Results indicate 60% students are using the Internet for more than two years. The students having experience of 2 years are 30%. Very less i.e. 7.5 and 2.5% have 1 year and less than 1 year experience respectively.

As far as frequency of use is concerned, 57.5% use daily where as 32.5% use twice in a week. On the other hand only 10% uses once in a week. The students who use two hours daily are 70% however, 20% spend 1 hour daily. The number of students who use it for Three hours and more than three hrs is only 5%.

##### **4.1. Advantages of the Internet**

Innovative use of the Internet, which is sharing of information and knowledge in no time, communication with people living in anywhere in the world and 24 hours availability. It was unbelievable before its advent. Today students see the world from a different perspective and found remarkable changes. Similarly, Tapscatt (1998) describes that superabundance of media and convenient access to digital technologies gave the "Net Generation" distinctive ways of thinking, communicating and learning. Due to invention of this revolutionary tool many old tools, routine works of sharing and transferring information have been tried to substitute.

Firstly, they were asked how they understand the Internet as the very useful channel in their life. 84 % of the student's percept the Internet is a revolutionary tool. They declared that the Internet is the wonderful technology, which has revolutionized pattern of work and life pattern completely in every sphere. Perception of the Internet as revolutionary tool can be found in the following statements:

As a G10S<sub>16</sub> shared, *"The Internet is daily emerging as a powerful media and has a worldwide influence."* Another student G9S<sub>32</sub> describes, *"In the absence of this technology it would be like we are living in the Stone Age."* He further viewed, *"Discovery of the Internet gave this world a new dimension."*

##### **4.1.1. Source of Unlimited Information**

The Internet is an absolute source of information. The wide range of information in which reliable information is available in large quantity regardless of subject and format. All sources of information and media are available through the Internet; therefore the Internet is called mass media. In this research from the sample 45% students perceives the Internet as an extraordinary thing. They felt the availability huge scope of information as most valuable advantage because they believe that no other channel provides information and services in large quantity. They compared the Internet with other sources like books, newspaper, radio, and television etc. Moreover, students mentioned that they liked the Internet because of availability of countless

information in diversity of format i.e. audio, video, textual, multimedia etc. Likewise, Leino (2006) studied that students believe that best part of the Internet is its infinite scope of information.

According to their perception all sources provide less information as compared to the Internet. In accordance with this perception following comments are explored:

G9S<sub>2</sub> said, *"The Internet provides something extra."*

G10S<sub>7</sub>, *"It has all knowledge, we need to achieve."*

G10S<sub>8</sub> *"There is less information in books but on the Internet huge information is available."*

G10S<sub>10</sub>, *"You can find anything you want."*

G10S<sub>14</sub> reported, *"It has everything."* And G9S<sub>36</sub>, *"Information is in massive amount."*

#### **4.1.1.1 The Internet as a "World" & "World's Repository"**

Presence of everything is an example of presence of vast amount of information and this is the reason students perceive it as a world of information. 63% Students symbolize the Internet as a "world." Over Internet websites variety of places are present virtually i.e. organization, superstores, markets, educational institutes, government institutes, print and electronic media, bookstores, publishers, libraries, banks etc.

A G10S<sub>16</sub> comments, *"The Internet is like a world on its own."* Parallel to this conception another comment of G9S<sub>22</sub> is *"The Internet is a world of information."*

Another comment from G9S<sub>25</sub> is *"The Internet is a new world to explore."*

G9S<sub>38</sub>, *"A whole world is available on a click."*

The Internet is accessible through mobile phones. When students have mobile phone in his pocket he feels like having whole world in his pocket.

Similar idea G9S<sub>22</sub>, *"It is the world in your pocket."* Identical impression of other students, G9S<sub>31</sub> who has access to the Internet through desktop computer, *"The Internet is like the whole world fixed on a computer screen."*

Repository is the place where things are stored. The 15%, students epitomize the Internet as a world's repository, a huge repository where world's knowledge and information is inestimable. Hence, this shows that few of them are literate about functionality of the World Wide Web (WWW), a place where worldly knowledge and information is stored and retrieved whenever needed. They know, World Wide Web is like repository of information or knowledge. The best feature is having limitless scope of knowledge and information.

A student G10S<sub>16</sub>, *"The Internet is an endless world in which possibilities are limitless."*

A student G9F<sub>5</sub>, *"It is a brain of the world."* He believes that Web's storage capacity of information is like that of a brain. Same perception of other student

G9S<sub>36</sub> viewed, *"Web has really opened horizons; one gets everything over there."*

Similar results were found by (Spink et al. 2010 p.200) in their study, students have a sense that the Google web search engine served as a big *"answer machine"* that could answer anything. The experienced users and expert searcher explore more and more and simultaneously get more benefits. New material publishes; messages delivers and data retrieves through the Internet within few minutes. There is too much to explore and once the interest is built to learn or to search more and more is found. Hence, it becomes difficult to limit the search. They symbolize information to sea's vastness. According to their view, information on the Internet is like a sea's water..

The impression is G9S<sub>2</sub>, *"The Internet searching takes one into a deep sea of information."*

A G10S<sub>6</sub> describes, *"While searching, I usually discover new things and I tell other friends of mine about it and equally about new discoveries which become more interesting for us."*

Similarly, G10S<sub>10</sub> “*The Internet searching is like a swimming in the sea.*” As another comment by G10S<sub>16</sub>, “*It has not happened that I found nothing which I was searching.*”

#### **4.1.1.2 Hyperlinks as Connectors & Ladders**

When one starts searching or surfing on web and the different keywords are entered on the search bar, the web search engine shows the list of Hyperlinks bearing of number pages. Thus by clicking on those links, one cannot stop browsing until his information need is not fulfilled. It seems that the Internet is a large container where endless information on anything or on any topic exists. There were only 10%, of students exemplify the website’s hyperlink with electric connectors, ladders and road to desired destination. They access lot of information sources through link to link. Some example of the Internet as continual source of giving information can be seen in the following perceptions.

As said by G10S<sub>25</sub>, “*Web links are a kind of path or way, on which one walks and arrives at his desired information.*” According to the G10S<sub>22</sub>, “*The Internet links are just like electric connectors or continuer.*”

A student represented the web links with ladders. To reach at a place ladder is used, which is high up, and it connects one with a destination that was not in his reach before. Hyperlinks, according to his consideration:

G10S<sub>14</sub> articulated that “*A knowledge increases at each step of ladder when search increases, at the end one reaches at the highest level.*”

#### **4.1.2. Source of Current Information**

Changes are happening in every field i.e. educational, commercial, social, religious political etc. The Internet is a best source to get current information. People keep them aware from news, current information, happenings or events that have occurred all over the world through internet. Updates are available there without any delay. More than half i.e. 75 % students mentioned the Internet as a “Source of current information.”

Today’s society is information-oriented society. Students realize the need to keep them alert about the world’s happening in social, political, educational, and other fields. They consciously try to acquire news. They also search news for their school assignments. For the reason 18% students gave their view as a source to keep update. According to the research of Çelikbaş (2004). RSS (Rich Site Summary), is the distribution method of news and other Web Content from the Web publishers to the Web users. When the web content, text are changed or updated, services like RSS on the WebPages provides information to their users. In this Research Students named about the services like RSS there comments are as follows:

Comment of G10S<sub>10</sub> is “*Best source to keep us up to date.*”

A G9S<sub>29</sub> view “*It keeps us in touch with happenings of the world.*”

A G9S<sub>36</sub> explains, “*I remain informed with all of the things going around the world for example, news, history, upcoming events.*”

News reading, searching, or browsing is sometimes done intentionally and sometimes unintentionally. Students elaborates unintentional reading of news as when he visits web to check his email, recent happenings of the world are on Yahoo or MSN search engine at [www.yahoo.com](http://www.yahoo.com) or at [www.msn.com](http://www.msn.com). The intention was to check email, not news but unconsciously he keeps track with the news pop-up on the screen. Liu (2010) investigates same perception that the Internet is mostly used for news and current events information about political events, public interest items, or current affairs.



New trends and fashions are very attractive for teenagers. Students of this age group are conscious and want to keep in fashion in society. They are more concerned about it. But on the contradictory very few, i.e. 7% students viewed that the Internet helps them to remain informed about fashions and trends. Similarly, Nevills (2010) describes teenagers or preteens have curious, insatiable brains and social, interactive minds. They have more curious minds as compared to people of other age groups. They have curiosity to learn or to know about the happenings. These things are fascinates them and satisfies their aesthetic sense. Following statement can be seen:

*A comment by a G9S<sub>2</sub>, "I have always curiosity about searching news facts and events."*  
*G10S<sub>11</sub> comment, "I watch the videos of hairstyles on you tube."*  
*G10S<sub>28</sub> said, "I get knowledge about new and old fashion trends, etc."*  
*G10S<sub>39</sub> comment, "I search the latest dress design."*

#### **4.1.3. Source of Self-Improving and Learning**

As illustrated in Cranmer (2006) and Liu (2010) that Internet helps students in making assignments and projects by providing useful information and pictures. It has become an integral part of children's everyday lives. Teenagers do homework and research with the help of the Internet. Likewise, in this research, majority, i.e. 82.5% students perceive the Internet as a great source of learning. Students also shared that the Internet is also a problem solver for different types of daily activities and hobbies.

##### **4.1.3.1 Internet as Source of Self-improving Knowledge**

Students who perceive the Internet as a source of self-improving knowledge are 30%. The Internet helps in studies and curricular activities. It also provides additional information on topics taught in class. This additional information helps in clearing the concepts and cultivates new ideas. However, reading habit increases thought process and many questions arises in the mind of reader. Simultaneously they try to get answers of these questions in result new thoughts develop which increases creativity.

*A participant G9S<sub>33</sub> explored "I got a history assignment on use of nuclear weapons. I got so many pictures on the Internet and I scored highest at SG."*  
*As they said, G10S<sub>9</sub> gave his remark, "It develops thoughts about different things."*

Similarly, (Rainie & Hitlin 2005) examines the similar findings that 88% of online teens believe that the Internet helps teenagers to do better in school. Following comments of this research:

*A students G10S<sub>12</sub> believes, "I can never imagine completing my projects without the help of web recourses."* A student told when he had a project on helicopter model he got necessary information and technique from the Internet and made this model.

*As G10S<sub>27</sub> experienced, "I learn a lot when I searched the event of 8th October earth Quake in Pakistan and got its detailed report that how many people died, what and how emergency agencies came out for recovering the dead bodies from difficult areas."* Further, he shared It was a very different assignment from others. His Social Studies teacher showed his assignment to his Classmates that how well searched his assignment was compared to others.

*Another student G9S<sub>37</sub> states, "I happily completed my assignment on elephants and came to know about its groups and their different habits while living together in a group."* The Internet helps in improving academic performance of students. It is a positive sign

that the students are using for improving academic excellence. However, students seek shortcut ways to get information without incurring mobility and trouble.

#### **4.1.3.1 Internet as Problem Solver of “How to Do?”**

Learning has become easy because of the Internet. Web search engines serves as a primary sources of information and provides any basic information in no time. Generally, people are learning how to cook, drive a car, playing games, sewing clothes through the Internet. Speculation of this research shows 30.5% of them solve their problems through searching over internet. (Spink, et al. 2010) results are also the evidence to same perception. (Liu 2010) elaborated that the Norwegian students perceive net as a great helper with their schoolwork and academic achievement.

Parallel to this the findings of this research are students approached the web search engine as inquirers, helpful resource and the problem solver. They believe it has broader scope of solutions of problems which helps them to learn different things of their routine life.

A G10S<sub>14</sub>, *“The Internet is always a very handy problem solver.”*

A G10S<sub>13</sub> shared his opinion as, *“It solved my problems for example how to play football.”* G9S<sub>22</sub> says, *“I learn how to feed my pet cat?”*

In addition, G10S<sub>17</sub> took help from the Internet as she searched for her gardening hobby. *“I find out how to make my garden beautiful by searching tips of net.”*

Only, 7% participants stated, they use translation tools of search engines to know about vocabulary, news words, and to translate any non-native language.

A Comment G9S<sub>35</sub> illustrates *“For my science project I searched a Chinese site and successfully translated it into English.”* She translates Chinese into English language.

#### **4.1.4. Source of Communication and Entertainment**

Gunn & Hepburn (2003) Identified, main activities of online teens are playing and downloading music, sending and getting e-mail messages, and playing game. This shows that communication and entertainment both are interrelated conceptions for young people. Similarly the Pakistani O-level Student exemplified both communication and entertainment together. Students broadly conceived, chatting, playing games, listening to the radio, and reading magazines through the Internet.

According to another comment:

A student G10S<sub>27</sub> viewed, *“Chatting in vacations is fun.”*

G10S<sub>28</sub>, *“I chat with friends and cousins who live abroad.”*

Another student G9S<sub>13</sub>, *“Listening songs through YOUTUBE is really enjoyable.”*

Chatting with persons living anywhere in the world is as similar as visiting at their home. Students shared their view that chatting is the best way to pass their leisure time. Chatting with their relatives or friends on holiday and on vacations is also entertaining and relaxing for them. Moreover, they share mutual understanding and by sharing of videos, pictures etc. The Internet has tremendously increased the interpersonal communication as well as dissemination of information.

A G9S<sub>22</sub> while expressing her view about chatting she said, *“With the help of web camera we can see each other.”*

Similar reported by G10S<sub>3</sub>, *“The Internet is a way to reach world from one end to the other end.”* Another viewed as G10S<sub>12</sub> *“It increases social interaction.”*

Communication is the basic need of human beings and survival is difficult without it. The Internet has diminished geographical barriers because of being vast communication medium. It has transformed the world into global village. It provides enormous sources and opportunities to communicate on worldwide basis. While living in any place in the world, people can talk to each other by viewing their face expression with the help of teleconferencing facility. Large text files are sent within seconds. Therefore it has become an immense need of students also. Hence, this research found i.e. 15% student, who explained that on social networking sites they were able to develop friendship with people living in foreign countries.

As a student G10S<sub>9</sub> said, *“One of my girl friend who lives in Ireland and speaks Italian, I communicate with her with the help of translation tools and learned few new words of Irish language.”*

Identically, Leino, (2006) examined student consider it as way to meet old friends and new people. In addition, this study also reveals chatting with people from different countries gave them an opportunity to get to know other cultures and customs and talk about different events.

There are many reasons why the majority of students perceive Internet as the best medium of entertainment. One reason of the internet for being an entertaining source is the publishing, blogging, sharing, tagging and uploading facility provided by different social networking websites. It is the fun seeking element, over social networking sites like FACEBOOK, TWITTER, etc. It also creates the social communication. Similarly, the recent surveys show a remarkable rise in the usage of the Internet in Pakistan. “In 2012, the number of Pakistani users on FACEBOOK everyday sharply, was crossing the eight million mark.” (Chandio, 2013).

This research viewed that students upload their posts, comments, videos, articles, messages, pictures etc. They search pictures of beautiful natural scenes like newborn babies, waterfall, birds' flying. They also believe that searching for online greeting cards and images of flowers, cakes to greet one is entertaining.

According to the comment G9S<sub>13</sub>, *“I have made my own blog page where my friends comment on my activities and thoughts that I post in.”*  
A comment is G9S<sub>35</sub>, *“I search images for enjoying and to freshen my mood.”*  
It has realized by G10S<sub>39</sub>, *“I enjoyed searching information on endangered species of animals.”* Another student G9S<sub>30</sub> shared his experience, as *“Searching images of tourism of Pakistan is entertaining and enjoyable for me.”*  
G9S<sub>31</sub>, *“We can find interesting information regards sports.”*

It is entertainment to searching and sharing funny pictures on social sites for having comments on them. Any person regardless of any nation, age, qualification can share information.

#### **4.1.5. Easily Accessible Channels**

Generally, 42.5% students convinced that the Internet provides easy access without mobility. This is one of the most recognized advantages of the Internet. The result reveals that students feel that when a person uses the Internet he/she can send as well as receive information easily as compared with the traditional sources of information. Particularly, these perceptions are based on experience of the Internet use. The reason they percept easy to search general information over the Internet, is that in the digital environment where the information seekers just thinks of search terms and types it on search engine and retrieves the information he want. However, in the physical space of library, mostly the efforts are done by information seeker himself. Similar notion that in the 21 century machines and technologies have been replaced by human physical

and metals efforts and the Internet is one of them. However, the study Madden et al., (2003) and Leino, (2006) shows same results students feel more comfortable and easy to get information from a computer screen than from a book.

Findings explain the easiness through the Internet with an example of searching information in a book:

As sample G10S<sub>27</sub> said, *"It brings information with a mere click rather than searching books for hours."*

Another sample G10S<sub>10</sub> articulated as, *"Searching from books is time taking but searching through the Internet, my life becomes handy."*

A student G9S<sub>2</sub> explored *"It is easy to get access to the information about one thing in many versions."*

As G9S<sub>18</sub> said, *"Searching from book is difficult."*

Alike, G10S<sub>26</sub> describes, *"By just typing words on search engine we get a lot of information about that particular topic."*

Another student G9S<sub>24</sub> asserts, *"Anything we want we can get on it, it depends on how we search on it."*

G10S<sub>11</sub> verbalize, *"The Internet is just one click accessible to everything."* G9S<sub>23</sub> stated, *"For me a click is just like a magic."*

Here the Pakistani O-level student explained that they obtain information effortlessly through the Internet so; they prefer the Internet instead of library or any other information source. They consider searching from books is not easy as compared to search over search engines. They also viewed that the use of right searching technique is essential to get the right information otherwise irrelevant information will be retrieved. They believed that the peculiar characteristic of the Internet is that internet provides information over the doorstep. Similarly, it was found in research project of Grimes & Boeing, (2001) as college student do not care about the quality of information provided by books over the easiness of finding information on the Internet.

#### **4.1.6. Time saving channel**

The Internet access has improved very much by the dial up connections and broadband services. Browsing on World Wide Web has increased from kilobytes to megabytes and, in near future it will be in Gigabytes. The Internet enables to search information within seconds. Fidel et al., (1999) found the same result. The speed of the Internet is improving day-by-day. Fast downloading and uploading of large files, photographs, videos, and games in a very easy manner has now become possible. From the samples, 17.5% students believed, the Internet as time saving medium. This perception is based on the experiences of internet use. They had experienced the Internet as the fastest channel for searching information.

As G10S<sub>3</sub> gave comment, as *"The Internet is also the fastest way to travel around the globe."*

A G10S<sub>13</sub> conceives as, *"It provides quick access to the world."*

Through this remark a student, expressed the Internet is a channel through which one travels around the globe within seconds. According to the above statements the notion of emailing, teleconferencing, videoconferencing are conceptualize as similar as traveling. They do not need to go anywhere physically. They enter in libraries, shopping markets, book markets, meet a friend etc. in virtual environment. There is no time limit whenever and wherever it is accessible. It is a fact is that the Internet provides 24 hours access to the World. This how they exclaimed that the Internet saves time.

A sample G10S<sub>19</sub> explain this as, *"I use to search and shop online mobile phones to buy my own as it saves time."*

Another G9S<sub>37</sub> shared his experiences as, *"It is time saving, time is very important in this hurried life. We do not have extra minutes to spend so it is better to go through the Internet."*

The sample student found the internet to be the speediest channel when they gave the answer according to the question to compare the Internet speed with other information channels. Searching over web search engines for any general information is searched in no time. It is time taking to search through card catalog in traditional library. Students believed that when they are in a rush and have to know about any kind of information then there is no other channel to provide information at the right time with a quick response except the Internet. In time bounded situation they percept the Internet is a source of rapid searching. Searching from print sources is time consuming where as digital resources provide vast access to specific information in no time. This saves time of user to accomplish his tasks in the shortest possible time. Information can be retrieved by just one click from e-books, simultaneously, just on click; it jumps to required information through hyperlinks.

A student G9S<sub>34</sub> says, *"Time saving channel as compared to other informative channel."*

A student G10S<sub>12</sub> describes the time saving advantage of the Internet as, *"It saves time Information can be collected just on a click."*

A student G9S<sub>35</sub> viewed, *"The Internet is like a solid plate of knowledge where worldly information could be retrieved by a click."*

Leino (2006) found the same perception of students that fast downloading capacity is a greater advantage of the Internet. Books and other print sources take time for publishing and distribution, whereas dissemination of online resources is quick and speedy through the Internet. Similarly, the research carried out by Moayeri (2007) and Grimes & Boeing (2001) states that, students prefer using the Web over traditional print sources because of the speed of accessing information. Student of this age want to complete their task in the shortest possible time and the Internet provides this capacity.

The Internet provides access to e-radio, e-magazines, e-books, online games, and TV channels and programs etc. Programs on TV and radio houses are telecast and broadcast on a specific time. Viewers and audience of these programs have to watch and listen at that particular time but the Internet allows them to watch programs on their available time. Accessing these good according to your ease and schedule saves time.

A G9S<sub>29</sub> conceptualize it as, *"On TV programs have to be broadcasts on their time, but on the Internet whenever we want we get."*

On watching T.V. a conception of student G9S<sub>29</sub>, *"A person is dependent on timings of his favorite programs but not on the Internet."*

A G10S<sub>14</sub> shared his views, *"Listening to radio through the Internet saves my time because in the mean time I also search and download other materials that I want."*

However, students are very concerned about speed of the Internet. The 12.5%, students mentioned the problem of slow speed. This problem irritates them and makes them bored.

A G10S<sub>28</sub> experienced, *"It was frustrating for me when I couldn't download a song. It kept me downloading and buffering without the result."*

As said by, G10S<sub>15</sub>, *"At the start of online games, I have to wait for its proper loading."*

These are problems still faced by them. This statement indicates hurriedness of students. They cannot wait for loading of games. Results of (Rainie & Hitlin, 2005) reveal that there is no significant difference between the percentages of teens who have looked up information with dial-up connections and those with broadband connections. This means speed of both connections is very fast and it does not affect the user's web searching.

#### 4.1.7. Money saving channel

Easy accessibility, broader scope, and speediness not only it saves time, it also saves money for the Internet users. Bulks of information, games, movies, TV dramas etc are available on the Internet free of cost for their user. . Students believe that these recourses can be obtained easily without spending money. Related to this concept only, 15% students from the sample believe it is money saving. According to Crammer (2006) children and young people believe that it is a time and money saving channel. On the contradictory to this conception Dunkels (2008) pointed out online chatting costs money because of dial up connection charges. Following are the perception of the students:

A G10S<sub>7</sub> say, *“If we buy books their cost is pretty much more than free downloaded books.”*

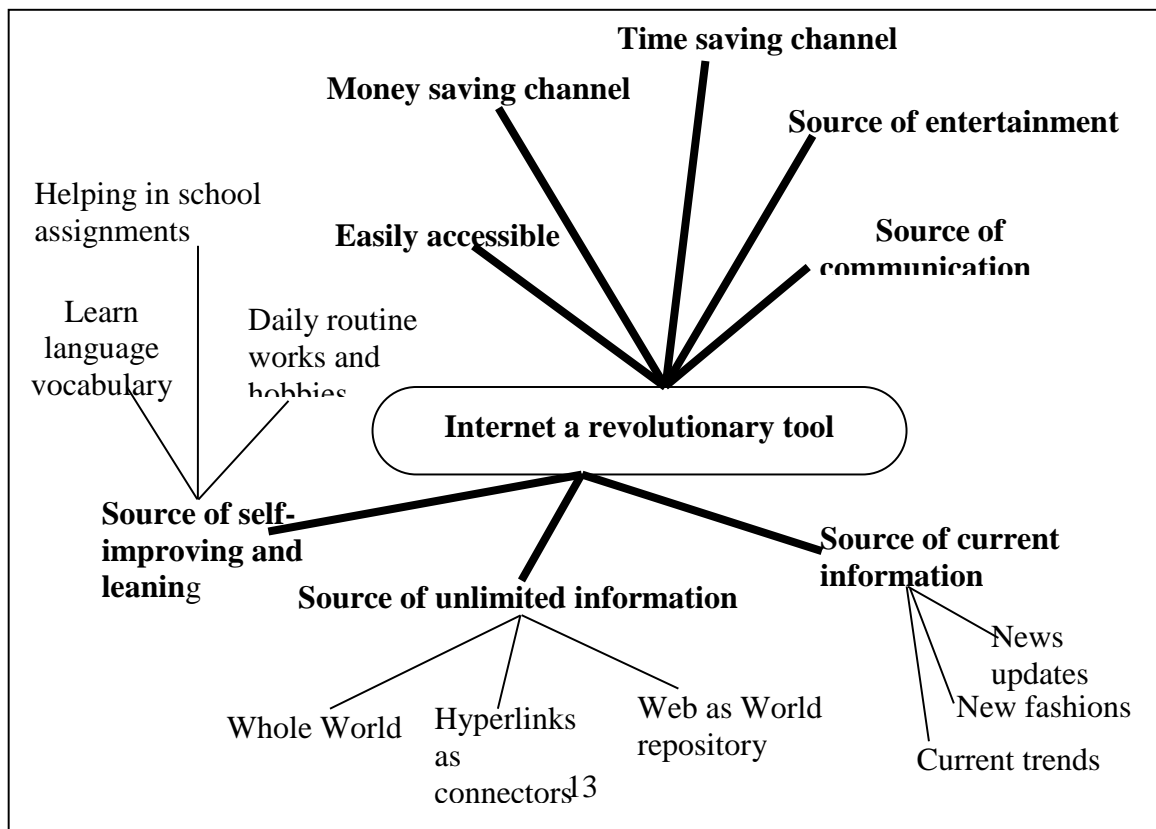
According to a student G9S<sub>21</sub>, *“We do not have to buy books, newspapers so its money saving.”*

A G10S<sub>12</sub>, *“My pocket money is saved in a sense that I meet my friends and talk to them online without spending money on transportation charges in visiting their homes.”*

G9S<sub>37</sub>, *“There are no postal charges while sending online greeting cards”.*

#### 4.1.8. Concept Mapping of Advantages

To build a concept map of the advantages previewed by students the inductive approach is adopted this means to move from specific to the more General concepts. In the following diagram, Revolutionary tool is a general concept and considered the major advantage. The other specific themes were inter-linked, from which many other advantages were fulfilled.



**Figure 1: Advantages of the Internet according to themes.**

## **4.2. Disadvantages of the Internet**

Everything has two aspects positive and negative. Excessive use of the Internet cause many problems such as low academic performance, mental health, physical health, social relationship etc. Students clearly perceive both aspects of the Internet. They explored its disadvantages also.

### **4.2.1. Wastage of Time**

The Internet is an interactive thing in which man involve in such a way that he does not realize time passing and wastes much of his time. There were 37.5% students, who informed that they see many interesting things and start to search on those topics and waste their time.

According to G10S<sub>4</sub>, "I know I am very addicted to use the Internet."

A G10S<sub>3</sub> explored, "*I stick on interesting topic for example fashion.*" Surfing on the Net without any plan leads to wastage of time. As explained by G10S<sub>13</sub>, "*People also make negative use of the Internet and waste their valuable time looking at unnecessary things.*"

Cole (2000) explored in the UCLA Internet report that it is a major perspective that the Internet users believe that it saves time but too much time is spent on the Internet. Many games, songs and films are available on it. They misuse their time by playing games and watching films. Tarozzi & Bertolini (2000) found children know it is not good to spend too much time on the Internet. Availability of recreational resources on the Internet does not let them realize that they are wasting time but searching with planning and strong determination to stick only their work will keep away from other things. Wastage of time affected negatively on studies and social relationship with friends and family. Leung & Lee (2012) explains in the factors of the Internet addition that adolescents spent a great deal of time online as compared to their intention before going online. Nevertheless, the behavior changing phenomena is same in study of Yousaf (2012) which indicates the Internet addition among school students do not prefer to go outside to visit their friends they like online chatting. Many interesting things are present on the Internet, which attracts student's attention, but it is necessary to be focus on the topic of search. This problem can be controlled through education and training.

### **4.2.2. Physical Health Problems**

Students spend more time in front of screen instead of having physical activity like sports. The 25% percept that, their on-line activities lead to physical problems. Similarly mentioned in Cocke (2013) that overuse of Internet can lead to inactive lifestyles, weight gain and a decline in physical fitness.

A G9S<sub>38</sub> says, "*It causes physical problems.*"

A student G9S<sub>32</sub> exclaimed, "*Physical problems like eye strain cause weakness of eyes.*"

According above statements students relies that the heavy usage of the Internet causes many physical problems like eyestrain, backache, neck ache, and shoulder ache, which cause problems in daily work. It has also reduced physical activities of children like playing outdoor games that is not good for their physical health and growth. As mentioned in Roberts (2013) that, according to estimates by the American Academy of Child and Adolescent Psychiatry published

by the Texas Heart Institute As many as 33 percent of teens are weighty who are addictive of Internet and playing games on TV. Weighty teens when become adults are also weighty. Thus they may have increased risk for chronic health conditions, including heart disease, diabetes and arthritis,

#### **4.2.3. Inaccessibility**

Inaccessibility of information resources is the problem, which 57.5% students pointed out. Everything is not available free of cost. These are available on payments due to copyright issues. Generally people may consider everything is available on the Internet. However, in this research students percept through experience that not everything is available on the Internet.

*As said by G10S<sub>7</sub>, "It does not provide access to some books, software, and songs due to copyright issues."*

*G10S<sub>10</sub> reported, "We go to library, here the Internet stops."*

*As experienced by G10S<sub>27</sub>, "Sometimes only table of content or 2 or 3 chapters are provided on Google Book search."*

*Another student G10S<sub>19</sub> gave his opinions as, "I had an assignment of Pakistan studies; searching for a specific topic took me nearly one a half hour and I got no proper results on the Internet. Then I took help from the concerned books at my school Library."*

Another problem is that some books display only few pages. For such books, they have to go to libraries and sometimes those books are not available in their libraries. Information recourses available on the Internet are helping them to learn but problem occurs when they do not get full access. Leino (2006) revealed the same perception of young people.

#### **4.2.4. Overloaded Information**

Students revealed that a massive amount of information is available on the Internet and when they search on any topic, they get information in such sizable amount that is impossible to read. Simultaneously, it is very difficult to select right and appropriate sources. In fact, selection of appropriate source is relevant to information literacy. The Internet searching requires knowledge and training of search strategy, searching technique, formulation of query for overcome the information-overloaded problem. There were 80% students, the majority who percept these problem.

*A G9S<sub>23</sub> viewed "I got puzzled by lot of information and could not decide to include which or how much in my school assignment."*

Students explained, due to overloaded information they sometimes experience problem in referencing in their assignment because same information is found from various websites. According to Leino (2006), missing references or writers' names are problems that hardly ever appear in books. On websites the writer's identity is often not that evident. Authors do not mention their names because copied material.

#### **4.2.5. Propaganda**

Anyone can give his or her views on the Internet on any issue easily. According to Pakistani students, different point of views puzzled them. The 42.5% students pointed out truthfulness of views is a problem. Some other researchers found the same results as Demner (2001) found that children go online for learning activities. They cannot properly estimate the validity of information they find on the web when they are not using school the Internet.

*G10S<sub>1</sub>, "I was interested in getting information about a Pakistani citizen Dr. Afia Siddiqui, an accused of US govt. I found different opinions of different persons."*



It becomes difficult to decide reliability of views. It creates dissatisfaction among readers. After emergence of Web 2.0 technology, every net user has a right to publish his thoughts and opinions but decision between right and wrong is very difficult. It is confusing them. There may be negative use of the Internet and propagandas on any issue easily be made. Leino (2006) examines that respondents specifically pointed to pornography sites and sites containing propaganda, promotion of drug abuse, and instructions for making bombs.

#### 4.2.6. Unwanted sites

There is no restriction on poor quality and substandard sites in Pakistan. Access is freely available to such sites and students access them due to inquisitive nature but parental control is very important in this connection. Through following statements we can see the

A student G10S<sub>27</sub> informs, *“Rubbish things are also available, sometimes unauthentic websites are found.”*

Same exclaimed by another student G10S<sub>8</sub>, *“Sexual commercial advertisements and different pop ups leave negative impact on minds.”*

Livingstone (2014) found that the priority given to violent content is noteworthy insofar as this receives less attention than sexual content or bullying in awareness-raising initiatives. Many children express shock and disgust on witnessing violent, aggressive or gory online content, especially that which graphically depicts realistic violence against vulnerable victims, including from the news. Video-sharing websites such as YouTube were primary sources of violent and pornographic content. The findings discussed in relation to children’s fear responses to screen media and the implications for the public policy agenda on internet safety are identified.

#### 4.2.7. Cyber Crimes

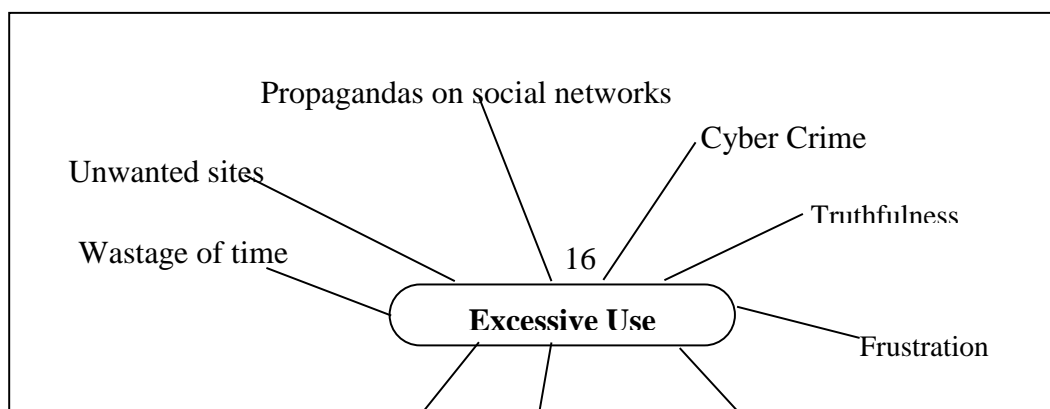
Crime in which internet and computers are used for illegal activities like blackmailing and hacking, telemarketing, copyright infringement etc are another negative aspect of the Internet. Accordingly 22.5% Pakistani students agreed that there are issues like cyber crimes over the Internet. One statement is given below:

G10S<sub>28</sub> explained, *“It (the Internet) is used for wrong purposes like black mailing, hacking.”*

Viruses may also be send through different network. It has become a prominent problem in Pakistan. Important files and data are lost and sometimes even cause their computers to get jammed due to viruses. Any problem, which creates obstacles in free flow of information, frustrates the Pakistani students, accordingly to the below comment:

#### 4.2.8. Concept Mapping of Disadvantages

Inductively concept map of the disadvantages is plotted according to the negative views of students about the Internet. Ineffectual perceptions were incorporated in a diagram of concept mapping, which identifies themes interaction with each other.



**Figure 2:** Disadvantages of the Internet according to themes

## **5. IMPLICATION**

It is a fact that much of perception depends on background knowledge, training and assumptions. (Hatfield, Gray C., 1985, p.693). For having the positive perception, it is necessary for young people to have training and knowledge through school curriculum. The results of this study stipulate that the teachers and parental role for controlling its negative aspects. They should make aware moral and ethical values of the Internet sites and its quality of contents. It is not encouraging to prohibit students in using the Internet. In this way, they will be deprived of gaining knowledge and learning. Parents should participate in shared web activities and co-browsing. Moreover, students emphasized on training of the Internet resources, services and searching techniques for access to its resources and services.

## **6. CONCLUSION**

Although this study highlights on the advantages and disadvantages according to the perception of Pakistani O-level students. The first and foremost, the study focused on advantages of the Internet. Therefore, study revealed that the sample Pakistani students are information conscious and use information in every activity of their lives. They try to produce quality by using information. However, the Internet use depends on experience. Students find easy ways and shortcuts by using the Internet. In fact, they find difficult to use library. Its positive aspects accelerate learning process and give empowerment to Pakistani students. In addition to this, the students clearly percept disadvantages of the Internet. They are aware and keep them self away from negative sites. That is, they are more concerned about its negative impact of the Internet on their life. Lastly, the study set out the significance for the school teacher, parents, and school management to pay importance towards the positive impact of the Internet as mass media. Students believe that training programs on the Internet use and its applications is necessary for availing its benefits fully.

## **7. LIMITATION**

This research reveals the perception of only those Pakistani O level school students who have facility of the Internet at homes, mobile, the Internet cafes and as well as at schools. However, the results show that all 40 students have ICT accessibility. Most of them belong to the privileged group of society. Potentially, they have used the Internet and they may have a strong perception over World Wide Web. Nevertheless, the result of this study cannot be generalized on young people of Pakistan because not each of them have availability of digital technologies and the Internet facility in home, school, and libraries also. It is the first study in Pakistan. Although, the Global Information Technology Report (World Economic Forum 2013), computes on a broad range of the Internet access facilitates provided at public and private sectors, also including digital

literacy of citizens and the availability of ICT policies and capital to invest more for ICT infrastructure by government and private sectors. Distressingly, it determines that in 2013 Pakistan ranked on 105<sup>th</sup> among 144 countries, although in 2012 it was at 102 places, among 144 countries. This estimation shows that globally Pakistan is under-develop and progressing towards field of ICT.

Primarily, it is the exploratory study designed to explore the perception of students about the Internet. The limitation of the student was the relatively smaller sample chosen from Karachi City area. In order to validate the findings of the similar research, it is recommended to have a larger sample comprised of wide range of Pakistani students. Considering the other city, schooling system, age group, and gender might influence the different result.

## 8. REFERENCES

- Alshahrani, S., & Ward, R. (2014). *The influence of internet use in the classroom environment*, In: 7th Saudi Students Conference-UK, 1st-2nd February 2014, Edinburgh, UK.
- Ameen, Y. (2012). Pakistan has highest growth rate of internet users in region. Retrieved March 3, 2014, from <http://weeklyphulse.org/details.aspx?contentID=2801&storylist=16>
- Aslanbay, Y., Aslanbay, M., & Çobanoglu, E. (2009). Internet addiction among Turkish young consumers. *Young Consumers: Insight and Ideas for Responsible Marketers*, 10(1), 60-70.
- Association of College & Research Libraries a division of American Library Association (1989) *Information Literacy*. (Presidential Committee :Final Report) Washington, D.C Retrieved April 1, 2014, from <http://www.ala.org/acrl/publications/whitepapers/presidential>
- Çelikbaş, Z. (2004) *What is RSS and how can it serve libraries?*, . In First International Conference on Innovations in Learning for the Future: e-Learning, Istanbul (Turkey), 26-27 October 2004. [Conference paper] <http://eprints.rclis.org/5617/>
- Chadwick, S. (2014). Cyber bullying' in *Impacts of Cyber bullying, building social and emotional resilience in schools*, Springer International Publishing, Cham, pp.11-29.
- Chandio, N. A. (2013). From online to on ground. *Sider magazine*, Retrived March 23, 2013 from: <http://dawn.com/2013/02/28/from-online-to-on-ground/>.
- Cho, C. & Cheon, H. J. (2005). Children's exposure to negative Internet content: Effects of family context, *Journal of broadcasting & electronic media*, 49(4), pp. 488-509.
- Cocke, A. (2013). *Internet Addiction and Health effects Demand Media*, INC, Livestrong.com Retrieved 4 August, 2014 from <http://www.livestrong.com/article/134688-internet-addiction-health-effects/>
- Cole, JI. (2000). *The UCLA Internet report: Surveying the digital future*, UCLA center for communication policy. Los Angeles.
- Cranmer, S. (2006). Children and young people's uses of the Internet for homework, *Learning, media and technology*, 31,(3), 301-315.
- Demner, D. (2001). *Children on the Internet*. Maryland: Department of Computer Science, University of Maryland. Retrieved March9, 2012 from <http://otal.umd.edu/UUPractice/children/>
- Dretske, F. (1986). Philosophy of Perception. In W. Halsey & E. Friedman (Eds.), *Collier's Encyclopedia* (Vol. 18, p. 574). New York: Macmillan Educational Company.
- Druin, A., Foss, E., Hatley, L., Golub, E., Guha, M. L., Fails, J. & Hutchinson, J. (2009). How children search the Internet with keyword interfaces. *Proceedings of the 8<sup>th</sup> international conference on interaction design and children*, pp. 89-96. Available June,1 2012 from: ACM Portal: ACM Digital Library.

- Dunkels, E. (2008). Children's strategies on the Internet, *Critical studies in education*, 49(2), 171–184.
- Fidel, H., Davies, R. K., Douglass, M. H. Holder, J. K. & Hopkins, C. J. (1999). A visit to the information mall: Web searching behavior of high school students, *Journal of the American society for information science*, 50(1), 24-37.
- Grimes, D., & Boening, C. (2001). Worries with the Web: A look at student use of web resources, *College and Research Libraries*, 62(1), 11-22.
- Gunn, H. & Hepburn, G. (2003). Seeking information for school purposes on the Internet. *Canadian journal of learning and technology*. 29, (1). Retrieved June 1,2012 from: [www.cjlt.ca/index.php/cjlt/article/view/35/32](http://www.cjlt.ca/index.php/cjlt/article/view/35/32)
- Hatfield, G. (1985). Perception. In *The Encyclopedia Americana* (International Edition ed., Vol. 21, p. 689). Danbury: Grolier Incorporated.
- Imran, S. (2014). *Students' Perception of Cyber Bullying: A comparative analysis in Sweden and Pakistan*. Available from Diva Academic Archive On-line <http://urn.kb.se/resolve?urn=urn:nbn:se:kau:diva-31937>
- Information power: *Nine information literacy standards for student learning*. (n.d.) Available from <http://home.mca.k12.pa.us/~kozlowskiw/library/The%20Nine%20Information%20Literacy%20Standards%20for%20Student%20Learn%E2%80%A6.pdf>.
- Large, A. (2005). Children, teenagers and the web. *Annual review of information science and technology*. 39 (1), 347–392. Retrieved June 1, 2012 from <http://onlinelibrary.wiley.com/doi/10.1002/aris.1440390116/pdf>.
- Leino, K. (2006). Reading the web-students' perceptions about the Internet, *Scandinavian journal of educational research*, 50(5), 541-557.
- Leung, L. & Lee, P. S. N. (2012). Impact of Internet literacy, Internet addiction symptoms, and Internet activities on academic performance, *Social science computer Review*, 30 (4), 403-418. Retrieved March 1, 2013 from: Sage Publication.
- Liu, F. (2010). The Internet in the everyday life-world: a comparison between high-schools students in China and Norway, *Comparative education*, 46(4), 527-550.
- Livingstone, S., Kirwil, L., Ponte, C., & Staksrud, E. (2014). In their own words: What bothers children online?. *European Journal of Communication*, 29(3), 271-288.
- Madden, A. D., Ford, N., Miller, D. & Levy, P. (2003). How do school children search the Internet? Teachers' perceptions, in *Information and IT literacy: Enabling learning in the 21<sup>st</sup> century*. Facet, London, 234-243.
- Moayeri, M. (2007). Lost in Cyberspace: Where to go? What to believe?, *Webology*, 4(4). Retrived June 1, 2012 from <http://www.webology.org/2007/v4n4/a47.html>
- Nevills, P. (2010). *Build the brain for reading grades 4-12*, Corwin: California, 114-119. Retrived June 26, 2012 from: Sage.
- Novak, J. D. & Cañas, A. J. (2008). The Theory underlying concept maps and how to construct them, *Technical Report IHMC, Florida Institute for Human and Machine Cognition*, Retrived August 4, 2014 from:<http://cmap.ihmc.us/Publications/ResearchPapers/TheoryUnderlyingConceptMaps.pdf>.
- Rainie, L. & Hitlin, P. (2005). The Internet at school, *Pew Internet & American Life Project*. Retrived March 23, 2013 from <http://www.pewinternet.org/2005/08/02/the-internet-at-school/>.
- Roberts, Holly L. (2013) The Negative Effects Electronics Have on Teens Retrieved August 4, 2014 from <http://www.livestrong.com/article/536846-the-negative-effects-electronics-have-on-teens/>.

- Robinson, M. (2008). Digital nature and digital nurture: libraries, learning and the digital native, *Library management*, 29(1-2), 67-76.
- Rubin, A., & Babbie, E.R., (2005). *Research methods for social work*. 5<sup>th</sup> ed. Belmont, CA:Brooks. p. 768.
- Shelly, G. B., Cashman, T. J., Wells, D. J., & Freund, S. M. (2008). *Adobe Dreamweaver CS3: Comprehensive concepts and techniques*. Course Technology.
- Spink, A., Danby, S., Mallan, K. & Butler, C. (2010). Exploring your children's web searching and techno literacy, *Journal of documentation*, 66(2), 191-206.
- Tapscott, D. (1998). *Growing up digital: the rise of the net generation*, McGraw-Hill Companies, Retrieved March 13, 2014 from [http://www.ncsu.edu/meridian/jan98/feat\\_6/digital.html](http://www.ncsu.edu/meridian/jan98/feat_6/digital.html).
- Tarozzi, M & Bertolini, P. (2000). Children at the dawn of the Internet: Exploratory research on current and potential use at home and in school. *European journal of teacher education*, 23(2) , pp.189-201.
- World Economic Forum (2013). *The Global Information Technology Report*. Retrieved March 24, 2014 from <http://www.weforum.org/reports/global-information-technology-report-2013>
- Young, K.S., (1998) *Cyber Psychology & Behavior*. FALL 1(3): .237-244. Retrieved August 4, 2014. from <http://online.liebertpub.com/doi/abs/10.1089/cpb.1998.1.237>.
- Yousaf, Z. (2012). The usage of Internet by youngsters of Gujarat city (Pakistan), *New media and mass communication*, 4, 26-36.

## ANNEX 1

### INTERVIEW GUIDE

#### Background Information

Grade \_\_\_\_\_ Age \_\_\_\_\_

- **Internet facility is available at**
  - Home
  - School Computer lab
  - School Library
  - Internet café
  - Any other
  
- **Your experience of Internet use?**
  - Less than 1 year
  - One year
  - Two years
  - More than two years
  
- **How frequently do you use Internet?**
  - Daily
  - Once in a week
  - Twice in a week
  
- **How much time you spent on Internet?**
  - One hour
  - Two hours
  - Three hours

- More than three hours

### **Perception about the Internet**

1. What do you percept about advantages of the Internet in general?
  - a. What is its usefulness in education?
  - b. What is its usefulness in communication?
  - c. What is its usefulness for entertainment?
2. Can you describe why Internet is the best informational channel as compared with other informational channel?
3. Do you think that the Internet is a revolutionary tool of information? If yes why?
4. What do you percept about disadvantages of Internet in general?
  - a. Do the excessive use of Internet harmful? If yes how?