

CHAPTER I

INTRODUCTION

1.1 Introduction

Technology plays a vital role in the present scenario. These days mostly all types of work are done with the help of technology. In the present scenario everyone is depended on technology, as various works can't be completed without help of technology such as online shopping, online payments and online bill payments etc. (Keswani, Banerjee & Patni, 2008). The rapid development of technology has also touched everyday life of human being. Every day we get to know about some new technology in various field of our life i.e. office work, market, academic field, medical etc.

Today's digital revolution has created various types of tools and resources. It provides all types of information at our fingertips. It has drastically changed the way we think, communicate, pay bills and transfer money, watch T.V., and stay safe. It has created many kinds of multifunctional devices i.e. smart phones, tablets, vehicle etc. So, it can be said that this digital revolution provides an easier, faster, and better life to human beings. It has also helped news companies to spread information across the globe (Ahmed, 2013).

All types of information being shared on social media with the help of this new technology as well as new tools. Social media has become an important and big platform for sharing information and individual opinion. This platform has various kinds of implication on everyday life of people. It arouses a kind of curiosity about the future of this type of technology as it seems more interesting (Akram & Kumar, 2017).

For example, a mobile user has the facility to better understand the meaning of difficult word with the help of online and offline dictionary. If you feel difficulties in any work including business, marketing, medical and academics, then download apps and just search in internet browser like Google Chrome, Internet Explorer and other search engine (Dogruer, Eyyam, & Menevis, 2011a). At present a number of driverless metro trains are running on tracks and robots are commonly presented in various places like factories, home etc. These examples make us aware about the rapidly changing lives of human being and role of technology in it. (Miraz, Ali, Excell, & Picking, 2015; Mohammed & Ahmed, 2017a).

In order to understand the degree of change in our lives due to technological revolution, one needs to critically examine everyday life of common people in the past. In the past, we used to write a letter to communicate with other that was sent by post and received by the next person after some days. Whereas, in the present time one can send messages with a click of mouse with the help of internet. It is easier the present only because of rapid growth of technology. The new technology has given birth to various kinds of applications such as Facebook, WhatsApp, skype and Twitter where we can send voice messages as well.

Some years ago, we used to stand in a queue to pay bill, deposit money, and fill income tax, other taxes and payments. But at present all types of work which are related to money bill payment, money deposit etc. takes a second with the help of your cell phone and internet (Sharma & Singh, 2018). We can purchase all types of things through online. In such scenario there is no need of cash either, as we can pay with UPI based apps such as BHIM, all banks have launched their own apps, apple pay, Google

pay, and Paytm etc. It is pertinent here to take into account that reading has become easy due to e-reader devices. It is only because of the Internet that the electronic devices like Kindle and Nook could provide millions of books and other reading material. Moreover, best thing about these devices is that they do not occupy any space in the home or office. It can be easily used in bus, train and trip or vacation.

In the field of security as well technology has provided a number of safety tools or apps, and which are keeping us longer and safer. The countless technology is working in the present time, for instance senior person or person with disabilities commonly use IOT devices (Mohammed & Ahmed, 2017b). There are other important technologies such as detection, sensor, CCTV cameras, wireless devices etc. These kinds of technologies are helpful for the safety and well-being of people, for example, Haryana government has launched a Durga Shakti app for women safety, which can automatically find the location of a needy woman.

In the present time, youth is fully dependent on technology for most of the works. The technology has also affected our work habits (Block, 2008a). The technology has also opened the options for the business, production, and marketing. It is evident from the discussion that the technology has both positive and negative impact on human life. Today every internet user is busy in using Internet of Things (IOT). Some years ago, we had a lot of time for our family and relatives but today we are busy and engaged in various types of internet-based activities. Today we have social media platforms to provide us instant connectivity and entertainment.

It is very important here to pay attention that, although technology provides lot of facilities but at the cost of health-related problems such as technology addiction or

internet addiction (More & Nalawade, 2012). It is certain that the technology has changed the education system and knowledge transmission as well as teaching and learning styles. For instance, if we do not understand a topic than we can open our cell phone or laptop and find a lot of methods and techniques for understanding of such a topic. Today we are attending the online classes, webinars, mock-test and other educational material through technology. A number of tutorial classes and material is available on internet which can be accessed free of cost.

1.2 History of Internet

In the 1950s, the scientist related to computer science and computer technology developed a technology to connect computers with each other to share data and other information (Almagor, 2011a). Over the time researchers/ scientists continued to research about sharing information and data from one computer to another. Eventually these efforts resulted in development of the Internet, which is a worldwide system of computer networks. It is a network of networks in which a net user can easily share information without any hurdle (Luppicini, 2010). The primary aim of internet is sharing information and ideas on a worldwide platform. Only the Internet could easily provide this type of platform. The initial stage of internet was solely domain of “U.S. department of defence.” The U.S. army used this technology for sharing the information especially during war time.

In the present sense, the Internet is not only a network, but also a vast collection of different types of network, information and data sharing tools. The data and information are being used with the help of certain common protocol and common services. It is run through the specific command that is not controlled by a single person

rather by server of specific networks. On the whole it can be said that the present form of the Internet is the result of some creative thinking of people in the early 1960s. They knew about the benefit of computers connected with each other, of people sharing information and data easily from one computer to another.

This technology plays a vital role in defence security system in the entire world. These days a country can easily keep a watch on the border of the country and also can watch the activities of neighbouring country. This types of activities or job is possible only with the help of internet. Hence, is can be said that the Internet is a collection of huge number of networks. J. C. R. Licklider was the first person who proposed the global networks of computer in 1962 (Broadband Suppliers, 2010).

For the purpose of better understanding, the role of the Internet in a wider perspective, it is important to pay attention to other significant scientific researches which are equally important as the Internet is and somewhat interconnected. We know that four types of scientific researches or inventions are famous on the earth. The ideas and suggestions of these researches were controversial at that time. But after some time, the vision of whole world changed. These researches provided alternative ideas in the field of science be it medical or life sciences which changed the conventional thinking about these fields (Floridi, 2009).

- 1) The first was of Nicolous Copernicus, he said the sun is the centre point of universe and it is motionless but that time his idea was controversial.
- 2) The second, Charles Darwin, is famous for his “Theory of Evolution” by ‘natural selection’.

- 3) The third was Sigmund Freud. He is famous for psycho analysis. He developed a topographical model of mind (Conscious, Subconscious, and Unconscious).
- 4) The fourth was Internet.

“The U.S. Department of Defence Advanced Research Project Agency” provided all the facilities to develop the Internet (Almagor, 2011b). The scientists wanted to establish the communication system between one location to another location specially during war time. At war time, the communication link was a major problem for higher authorities and others. So, the scientists concentrated on finding the solution of communication problem especially in the war time. The efforts of these scientists and authorities bore fruit and as a result the early internet was implemented in U. S. defence and eventually in universities and telecommunication companies. The internet grew in the 1960s and 1970s, becoming the networks of computer for transmitting information by “Packet switching” (Carpenter, 1996). In the 1990, the Internet in the present form was developed in U.S.A. and within few years it expended globally.

After some time, inventions like “Email, The World Wide Web, File Sharing, social networking, blogs” and other data sharing platforms came into being as complementary to the Internet. It was beyond the imagination before the invention of internet in the present form. The history of the Internet began about 1960s, during the Cold War. At that time the World was “bi-polar”:

The united states and the Soviet Union, both were rival of each other for expanding their power and technology. On 4th October 1957 then, Soviet Union launched the first space satellite, sputnik. The sputnik`s success necessitated American reaction. It was a question of pride and leadership. The US department of defence responded by establishing the Advanced Research Project Agency (ARPA, 2004), designed to promote research that would ensure

that USA complete with and excel over the USSR in any technological race. ARPA's mission was to produce innovative research ideas, to provide meaningful technological impact that went far beyond the convention evolutionary development approach, and to act on these ideas by developing prototype systems (Abbate, 2000).

1.2.1 Features of Internet

Today's generation fully rely on the Internet as it provides a lot of information in every field just by single click. The internet is being used for various purposes depending on the requirement of the users.

- **Communication:** - The Internet has drastically changed the ways of communication. These days various official and non-official communications are done with the help of the Internet (Reips, 2008). We can easily communicate with video conferencing, text chatting, and sharing his/her ideas on social networking platform only with the help of the Internet. It is a precious gift of technological revolution that we can send our messages anywhere in the entire world.
- **Research:** - Before the advent of the Internet a researcher had to go through the many books for achieving the purpose of his or her research work. But, at present a researcher can search easily his research material with a single click on the Internet. We can search a single topic and receive hundreds of references of related topics. A researcher can publish his or her research work easily with the help of internet. A researcher gets many benefits through this technological revolution (Jagboro, 2003).
- **Education:** - Internet is boon for education. Many school and colleges/ universities faculties use this as a learning tool. It is an effective tool that both

teachers and students frequently use. There are number of books, magazine, story books, references, online help centre and study material available on the Internet. It makes learning easy by providing various easy methods for learning. We can easily visit various websites and take endless knowledge regarding our needs or topic. It becomes important here to take into consideration that in order to gain mastery in education the Internet has become a significant tool (Dogruer, Eyyam, & Menevis, 2011b).

- **Financial Transaction:** - Today we do not need to stand in long queues in the banks or other counters in order to withdraw or deposit money. We can easily send and receive money by single click. At present all banks provide net banking facilities. All these facilities have become possible only with the help of the Internet. In the present scenario the Internet has provided facility for every bank to have its own mobile app for online money transaction and other cashless works (Koskosas, 2011a).
- **Real time updates:** - the Internet provides the real time update about entire world. We can easily get information/news about sports, finance etc. any time anywhere.

1.2.2 Pros and Cons of Internet

Today's world is like smaller place because of the technological revolution. The internet plays main role in the field of smaller world. It plays an anonymous role for connecting people, sharing information and finding new things. However, despite the advantages the internet brought to mankind, there are potential drawbacks too. It is very important to understand and know its pros and cons which helps in understanding it to its core (Bhagat, 2019).

Pros of Internet

- **Communication:** - Thanks to internet for providing a better way of communication with other people across the globe. We can communicate easily with minimal cost with one another more than ever have done in history. So, it is the source of the all types of endless knowledge.
- **Information:** - A person can search any types of information with the power of internet. The search engine – Google Chrome, Bing, Microsoft edge, which helps in accessing endless information which an internet user desires. Information can be found on the Internet by entering a single word, phrase or sentence.
- **Online transaction:** - the Internet provides the many ways for online transactions. The online transaction is complete with net banking, Paytm, Google Pay, phone pay etc. We do not need to stand in a long queue in any bank and office for transaction related works.
- **Automation and control:** - These days a lot of things are connected with wireless infrastructure which is possible with the help of internet. The various large machines are being controlled by digital and wireless functions. All machines are carefully controlled by human intervention.
- **Learning:** - At present the internet is the most important part of education. All types of homework and project work is completed with the help of internet.
- **Entertainment:** - It provides endless entertainment. The ways of entertainment are forever changing due to the Internet be it movies, music, games, books and software etc. everything is available on World Wide Web.

Cons of Internet

- **Decrease personal privacy:** - An internet user opening his or her account on a social networking website and feed his or her all personal information. Hackers trace the mobile and social account of user and can misuse this personal information.
- **The excessive use of internet can become an addiction:** - Excessive usage of the Internet is an “impulsive control disorder”. The people who use the Internet excessively could even emotionally get attached to virtual friends, their activities, and their ideas. This kind of emotional attachment could be so strong that these people can even their risk job in the real life and their important personal and social relations for the shake of virtual community.
- **Multiple expenses:** - If you want to connect with internet, you need to recharge your smart devices i.e. smartphone, tablet and laptop etc. If you want to create your own website you need to pay nominal fee.
- **Dependency on technology:** - In the present time, it is observed that the youth of any country are fully depended on technology, internet and its devices for every little thing. The totally dependency on internet is harmful for a user and also for a nation.
- **It encourages pornography:** - The internet plays an important role for encouraging pornography and other cybercrimes. Some users were addicted to cybersex due to these types of video clip and image.

Today's electronic and communication technology is essential part of a human being (Greenfield, 2019). It has been intruding the lives of the people over past few

decades. Due to the technological revolution there is unprecedented development in the field of communication technology, i.e. mobile and internet (Roztocki, Soja, & Weistroffer, 2019). However, internet is an easily available source of almost all types of information and removes barriers of communication. This technology has the positive as well as negative impact on human life. The excessive use of this technology inflicts the user with various problems related to psychophysical health.

However, the excessive use of internet is likely to cause addiction in its users. These days people read the articles, blogs and other material on the internet rather than newspaper, books and other hard copy material. But, in recent time the excessive use of internet has increased drastically especially among the young population. Internet addiction increases the dependency of user more and more on the internet, and other digital gadgets (Menon, Narayanan, & Kahwaji, 2018). The user has unpleasant feelings due to increased dependency on the Internet. Some users also face psychological problem because of excessive usage of internet (Madhuri & Vedpal, 2016).

Now a days, internet is an integral part of school and colleges, where students and faculties use the Internet as a teaching learning tool in campus and off campus. A study conducted in Nigeria (Okwaraji, Aguwa, Onyebueke, & Shiweobi-Eze, 2015) found that students were using internet in every part of their day to day life.

Internet provides a lot of facilities like online gaming and online chatting; excessive usage of these facilities and the resultant internet addiction has severe effects on students' academic performance and mental health (Khan, Gupta, Rajoura, & Srivastava, 2018). A study conducted in China (Jiang, 2014) shows that the students now a days spent lot of time on their online activities. This has reduced the performance

of students and has resulted in the symptoms of like depression, mood swings, anger, sadness, boredom, stomach upset and digestion related problems. Moreover, because of this addiction, users also face a lot of problem with family and friends. One study (Sharma et al., 2016) found that the high school going students had medium level of internet addiction and they had negative relationship with their family members and friends.

It is also noted that internet provides more scope for students to cheat in examination and other academic works. They can easily copy the study material of other students and present it as their own. It is also found that a number of students copies part of their papers or/and articles from the Internet without permission of the authors and without quoting the original source of related material. Most of the high school students utilise the Internet for social networking websites, and some of them take help of internet for academic works.

The teenagers enjoy the online activities or communication with their virtual friends which is in fact not real (Kesici & Şahin, 2009). This type of habit results into internet addiction in the long term because of overuse of social networking websites.

It is significant to mention here that the usage of the Internet differs on the basis of other facilities. As per some research (A. & Pattar, 2018), which indicate that the urban areas use more internet compare to the rural areas as an urban area have more facilities than rural areas. A survey conducted in an urban area (Karmakar, 2017) indicated that the half of the population from sampling use internet for chatting purpose only. Some research (Pawłowska et al., 2015) also found that playing online games, and overuse of social networking websites are more prevalent in urban areas. The overuse

of these social networking websites is one of the primary reasons of the “Internet addiction.” At present most of the people use smartphone instead of simple cell phone as smart phone provides more facilities like playing video games and social networking. These days many teenagers play video game at home on mobile and computer. They play online and off line games on computer. So, computer is also one of the reasons of the Internet addiction along with smart mobile phone, laptop, tablets are popular devices of internet usage. The use of internet is providing the way of communication, entertainment, engagements and information sharing with other. The accessibility to the Internet is becoming wider leading to the Internet addiction.

The Internet changes the daily life of human being, work style, ways of communication and ways of learning. If we overuse internet, social networking websites, online friendship, online chatting and online games for hours, it becomes difficult for us to control the use of internet and would have to face problem due to excessive internet use. It is also very much possible that we might become addicted to the Internet.

The above discussion shows that the use of the Internet can be both healthy or unhealthy (Guzel, Kahveci, Solak, Comert, & Turan, 2018). It depends on the user`s activities and behaviour. If we use the Internet in controlled situation such as in office, school and Wi-Fi areas, it is considered as healthy use. But when we use the Internet in controlled situations such as in school, office, social networking for long hours or excessively, it is considered as unhealthy use (Ahmadi, Jafarizadeh, & Haghani, 2019).

The students get addicted to the excessive use of internet due to improper guidance from teachers and parents. The internet addiction can cause depression,

behavioural problems and interpersonal problems etc. (Sasmaz et al., 2013). The addicted person skips food, eats more fast-food, and skips the exercise to stay fit. The excessive use of internet is changing the life style of users. It also creates a number of physical and psychological problems i.e. sever back pain, neck pain and depression etc. (Zheng, Wei, Li, Zhu, & Ning, 2016). It even creates the personal and social problems. The human being`s physical growth depends on nutritional intake. But because of the excessive use of internet they face problem such as high weight gain or low weight, and blackheads below the eyes etc. (Yildirim, 2018).

1.3 Internet Addiction

There are various names attributed to internet addiction such as obsessive-compulsive disorder (OCD), impulse control disorder (ICD), pathological internet use, compulsive computer use, problematic computer use, internet dependency and even Internetomania. The National Institute on Drug Abuse views internet addiction as a behavioural addiction. According to Young et al (1998) “internet addiction is a broad term covering a wide variety of behaviour and impulsive control problem.” Orzack (1995) argues that “internet addiction is a kind of disorder in which people who consider computer keyboard more interesting than monotonous life suffers from it”. American Psychological Association (Caplan, 2002) has defined “internet addiction as a method to use internet that brings functional disorder which come along with an internal unpleasant state during a two-month period.” It is interesting to note that “the first person to publicly use the phrase internet addiction disorder meant it as a joke. In 1995, psychiatrist Ivan Goldberg posted a humorous entry about internet addiction on psycom.net.” (Wallis, 2014)

We know the reality that the Internet is one of the volumetric creations of scientist, researcher and engineers of computer science. It is because of this only that the present generation of the world feels near to each other. The Internet is providing multiple activities at the same time and has become an essential tool for billions of people. At present a common man can explore unlimited possibilities in field of communication and diffusion of knowledge which can only be done with internet. Hence, the benefits of internet are undeniable but some people/users do suffer the consequences of uncontrolled use of internet.

The use and abuse of the Internet is one of the heated topics in the present world, and there are a few people know thin line between use and abuse of internet. A number of people are excessive users of internet; they are sleeping with their smart phones. There are many users suffering from this type of disorder. The overuse of the Internet is the main reason of a new disease called the cyber addiction. The people who are addicted reduce their personal relation and increase their online activities and relation. It was in 1995 that Ivan Goldberg first time suggested the concept of “internet addiction”. He was drawing an image of the disorder of “internet addiction” on the base of “DSM-IV-R.” The same thing was again used in 1996 by Kimberley Young in a conference at American Psychological Association in Toronto. She is known as the pioneer in the sphere of “internet addiction.” She described the “internet addiction” by appropriating the principles of “compulsive gambling.”

In 1998, Young estimated that 5 to 10 % internet users showed internet dependency. After one year, a survey conducted by Devid Greenfield, who found that 6% of American internet user are cyber addicted. Whereas, Elias Aboujaoude found

lower frequencies of spread of internet addiction. He found that only 1 % of American users showed dependency on internet. If we notice outside America as well there were surveys conducted by the experts in the field of the internet addiction. As there were some surveys and assessments conducted in Asia and there were various works, related to internet addiction, published in South Korea. South Korea recognized that internet addiction was serious public health problem in front of the country. In 2006, Korean Government found that approximately 210000 children were addicted to internet. In other words, “these surprising estimates are unfortunately the same as in many countries where internet is extremely popular among young people” These surveys indicate the alarming seriousness of the new found problem of internet addiction.

It is very important to take into consideration that the usage of the Internet has drastically increased in the last twenty years. A large number of populations of rich and poor countries can easily access and afford the Internet (Ioannidis et al., 2018). The usage of the Internet reached world-wide about 1989, and now a wide range of activities are being shared through internet on various social networking platforms. These are teaching-learning related, new research related, occupation related activities i.e. business meeting, business related documents sharing/ exchange, interview via video conferencing with the help of skype, pleasurable activities i.e. social networking, online friend searching, online gaming and pornography, You Tube and e-mails etc. (Block, 2008). The wide range of these activities on the Internet shows that it has touched every aspect of our life, be it personal or professional, physical or mental. In other words, it has become almost impossible to live a comfortable life in today`s world without internet. So, it can be said that as every coin has two sides, the Internet also

along with the vast range of benefits causes some serious problems which need to be discussed in detail here.

There is a term called, Problematic Internet Use (PIU) (Davis, 2001) in various documents, it describes all internet related behaviour including online gaming, gambling, pornography and excessive use of Social Networking Sites (SNS). A number of universities and colleges students are most likely to fall into the web of problematic internet use because of various reasons. Some of the obvious reasons are easy accessibility to the Internet via different mediums. These adults feel good as they are happy to build their own identity, partner and watch porn video clips on the Internet. It shows that the excessive use of internet by university and college students is hazardous as these things affect their academic progress as well as their professional carrier on the long term.

These kinds of hazardous impacts on the youth have been shown by various studies. “The International Child Mental Health Study Group” (ICMH-SG, <http://www.icmhsg.org>) conducted a cross cultural study in 2018 to understand the pattern of the Internet usage among students of various universities and colleges from various countries of Asia and Europe, primarily focusing on the problematic internet use and “internet gaming disorder” as a newly developing psychiatric condition. Balhara and Anwar conducted an international cross-sectional study in 2019 on 2749 universities and college students in Asia and European continent. He found that prevalence of problematic internet use for the whole collected sample was 8.4%. Hence, the PIU is a significant cause for disturbing the mental health of students.

There are various studies which show that the development of new technologies has significant impact on the rate of internet addiction. For instance, a study found that

students of various universities spend an average of 6.5 hours on the daily basis utilising various form of Media i.e. T.V., computer and internet (Dorey et al., 2017). The invention of new technologies such as smart phone, tablets, iPhone has increased the hours of internet usage. It is the young generation that excessively uses this technology (Pempek & Mc Daniel, 2016).

The integrity of new technologies i.e. computer, tablets and internet provide the plethora of opportunity in the field of communication, information and entertainment. Unfortunately, excessive use of these things causes addiction. “Human satisfies their psychological needs related to purpose, value, efficacy and self-worth by participating in various social groups and by maintaining meaningful social relationships (Stillman et al, 2009)”.

Internet addiction expresses the excessive use of devices and technologies that may associate with the internet. It’s clear that the Internet is frequently used by people and adversely affects people. The Internet users have to face both the negative as well as positive impacts of it. Additionally, the Internet provides an especial source of communication having its own set of rules and regulations. It also has its own language and maintains own standard. These features of the Internet have very strong impact on the Internet users all over the world. The problematic internet use is also known as “Internet addiction”.

The development of internet is providing a number of useful information and facilities to all the people. Economically, the internet has provided business and financial opportunities. It has provided the online market for selling and purchasing of all types of things. Socially, internet has provided a big social platform for

communication with others, online friendship and others social activities. The internet allows users to make friends, play online games, gain emotional and social support and learn about various cultures.

In contrary to these benefits the internet has also created a set of difficulties for the general population of world. Several studies found that a number of people suffer from the consequences of Internet use. As, Beard (2002), said that, internet also provide the hazardous information, i.e. how to make bomb. We know that some people are misguided by the abundance of misinformation available on the Internet.

There are other negative aspects of excessive internet use, as some internet users create fake identities and misrepresented themselves as Beard and Wolf (2000) believe that “problematic internet use can be found in any age, social, educational and economic range”. The excessive usage of the Internet is called “internet addiction” and computer junkies. The term problematic internet use can also indicate to “internet addiction”. The “internet addiction” is mixture of problematic internet usage and impulsive control problem related to an internet user and other negative consequences of Internet usage.

1.3.1 Dopamine and Addiction

The brain produces a neurotransmitter known as Dopamine. This neurotransmitter performs a significant role in all types of addiction. The experimental and empirical studies found that certain-behaviour including drinking, smoking and internet usage trigger the release of dopamine. The dopamine released in the brain give a feeling of pleasure. An individual gets addicted to whatever it may be because of the pleasure one gets due to the release of the dopamine in the brain. A number of addictions are related

to releasing of the dopamine including drug addiction, smoking and alcoholism (Jovic & Dindic, 2011).

1.3.2 How Does Online Addiction Affect Health and Well-Being?

The overuse of Internet is hazardous for the health of users. The individual who is addicted would not be able to do anything creative and other works. He hadn't accomplished anything because of his/ her addictive behaviour. Always they keep thinking about the previous activities of the Internet, and they will plan for next time using the Internet. They are fully dependent on internet activities (Flisher, 2010).

- **Brain changes:** - There are various studies which found that the usage of the Internet for long periods can change the structure of brain. Similarly, a study published in 2011, the researcher said, the overuse of internet is a cause of shrinkage of the parts of brain of addicted person. Another study found that, the addicted brain can't control various types of cognitive control and emotional processing (Pan et al., 2018).
- **Physical problem:** - Those people, who spend large amount of time on computer or online activities, spend hours in one position are suffer numerous physical problems, especially bone and joint related. Spending long hours in front of computer is physically harmful (Sun, 2009). It is noticed that long hours of sitting in the front of computer causes severe pain in the lower back of the users.
- **Social networking and unhappiness:** - Research found that the overuse of Internet and social media is a cause of unhappiness and depression. These websites amplify displaying them for everyone to see (Aboujaoude, Koran, Gamel, Large, & Serpe, 2006).

- **Constant connection and stress:** - Many people immediately response to phone call and any email. According to research, the researcher found that this type of user is addicted to mobile phone and computer (Block, 2008).
- **Personal relationship:** - The disturbance in personal relationship is also a negative consequence of Internet addiction. Some internet users are fully immersed in their online activities. They ignore their relationship with their friends and family members (Samantray, 2015). Internet is primary priority of addicted person. They neglect the real world and completely sink into the digital world. They completely forget about the real world.
- **Social Development in youth:** - Internet is a useful tool for students and youth of any nation. It is helpful in various types of projects and other extra-curricular work. However, it is also very harmful to youth of every nation. It poses various hurdles in development of a number of social skills in the youth, for instance, skill of face-to-face interaction (Wallace, 2014). The youth of a country may be fully active on any types of online activities but they feel hesitation when in face-to-face interaction. Most of the youth fully rely on these types of technology.

1.3.3 Definition of Internet Addiction

The “Centre for Internet Addiction” was founded by Dr. Kimberly Young in 1995, and defines Internet Addiction as any online activity compulsive behaviour which interfere with normal living style of a user and causes servers stress on the people who are in close relation with him or her be it family members, colleges or friends. It is also known as “the internet dependency” and “internet compulsivity.”

The concept of “Internet addiction” was suggested by Dr. Ivan Goldberg in the year 1995 for “pathological compulsive internet use.” In general, “Internet Addiction” means “an uncontrollable desire for excessive use of the internet, devaluation of time spend without connecting to the internet, intense nervousness and aggression in the case of deprivation and progressive deterioration of social and family life.” The symptoms of a person addicted to the Internet are as such staying online for several hours, and giving preference to connect with other people virtually rather over meeting and interacting with them in the real life (Young, 2004).

Black et al. (1999) “compulsive computer use that had contributed to personal distress or social, occupational, financial, or legal consequences”. “Internet addiction is characterized by excessive or poorly controlled preoccupation, urges or behaviours regarding computer use and internet access that lead to impairment or distress (Shaw& Black, 2008)”. Proposed definition of Internet addiction by Amanda Heller, “If every gratified craving from heroin to designer handbags is a symptom of addiction, then the term explains everything and nothing”. Internet Addiction might be explained in the broad sense as “the inability of individual to control their internet use, resulting in marked distress and / or functional impairment in daily life.” (Bostwick & Bucci, 2008)

1.3.4 Internet Addiction and Diagnostic and Statistics Manual of Mental Disorders (DSM)

DSM was published by “American Psychiatric Association” (APA) from time to time. At present we follow the DSM-V, published on May 18, 2013. Internet gaming disorder is included in this version of DSM-V, but internet addiction disorder is not included in this DSM-V. Some arguments in favour of Internet addiction is included in present version of DSM-V.

Psychiatrists say that the diagnosis procedures are same to this other addiction disorder i.e. excessive usage, isolation, withdrawal, intolerance and negative social repercussions such as poor academic achievement. Preliminary evidence fingers at an opioidergic component to internet addiction, possibly treatable with “Opioid Receptor Blocker”. This is consistent with general mechanism known to “underline addictive disorders.”

Research and teaching efforts would also be triggered if internet addiction is an official DSM-V diagnosis. As Block recently wrote in an editorial that “internet addiction appears to be a common disorder that merits inclusion DSM-V, conceptually the diagnosis is a compulsive - impulsive spectrum disorder that involves online and/ or offline computer usage and consist of at least three sub type: excessive gaming, sexual preoccupation and e-mail/text messaging (Block, 2008).”

1.3.5 Component of Internet Addiction

Major six components of internet addiction on the basis of internet addiction component model (Griffiths, 2005)

- **Salience:** - Addicted people always keep thinking about past online activity and the upcoming online activity. So, it dominates their thinking feeling and behaviour.
- **Withdrawal:** -Addicted person feels unpleasant when internet connection is suddenly disconnected and reduced. The users feel depressed and nervous without using internet. Other than that anxiety, irritability and boredom are major symptoms of this type of component.

- **Tolerance:** - The user wants to increase the time of online hours. An addicted person also wants to achieve more and more online activities.
- **Mood modification:** - The addicted user can't feel good without internet use. The user feels good after using internet. Internet/online activities work like a coping strategy for addicted person. They worried without internet and think life is boring, empty and joyless. So, that uses of internet to escape a dysphoric mood.
- **Relapse:** - It is referred to the tendency of showing the same pattern of addictive behaviour, thus reappearance of addictive behaviour even after controlling it for many years.
- **Conflicts:** - Internet creates the hurdle for all important work like family, personal and official due to the amount of time one spends online. Academic performance of students, job performance of an employee relationship with friends and family members also suffer because of the internet addiction.

1.3.6 Types of Internet Addiction

Dr. Kimberly Young is one of the foremost experts of in the field of internet addiction. She has published a various book, research paper and article related with internet addiction. She has described the six types of internet addiction.

- **Cyber sexual addiction:** - It involves the online pornography. It is a self - explanatory internet addiction. It involves the various sexual related online activities. These types of activities create the problem in the real life, sexual and romantic relationship. Online sexual activities have been shown to have a hazardous effect on the addicted mind.

- **Cyber-relationship addiction:** - The user is related with their virtual friends. They neglect their personal relationship and engage with online friends. These types of relationship may not be sexual in nature but they are destructive and have negative consequences on the user of internet. The addicted person spends more time with online and social networking friends as compared to real friends.
- **Net Compulsion:** - These types of addiction are related to compulsive online shopping, online gaming, online auction and online casinos. These types of habit also create the financial problems and job-related problems in office. The addicted person always engages with money related online activities. So, obsessive online gambling, shopping, purchasing, auction and gaming are example of net compulsion.
- **Information overload:** - The internet provides the endless knowledge about any fields. The user can easily search all types of information on the Internet. But in some cases, information seeking is converted in information overload addiction. These types of habit reduce the work productivity of user. The user always depends on internet for finding any types of information.
- **Computer addiction:** - It's referred to computer gaming addiction which includes both online and off-line gaming. Some employees are commonly addicted to computer addiction due to excessive use of online and off-line computer in his or her office. Computer addiction is not only found in employees, but also in kids and young user of computer and internet.

1.4 Personality

In daily life the word personality is freely used by everyone with different meaning. A number of people refer to the physical appearance and some other people refer to intellectual traits of human being. The physical appearance referred to visible merits of a person like height, weight and other physical qualities. And the intellectual traits referred to intelligence, way of thinking, way of speech and other internal traits of a human being.

Personality is a concept that has been used to recognize stability and uniformity of behaviour in various situations, uniqueness of the individuals and particular differences. “Personality can be defined as a dynamic and organised set of characteristics possessed by a person that uniquely influences his or her cognition motivations and behaviour in various situations (Haghshenas, 2006)”. The word personality is also referred to social characteristics of a person i.e. sociability, generosity etc. So, the judge of an individual personality is on the basis of external and internal qualities or traits. Everyone has a personality and personality traits affect every person in entire world. In psychology, personality is described in various ways and various theorists.

1.4.1 Meaning of Personality

Every person has some special qualities or specialties. These qualities make a difference in the personality of an individual. The combination of all these qualities or specialties is called personality of an individual.

The concept of personality is described through various theorists. All theories are described in various ways. Personality is a unique behavioural and cognitive pattern

of an individual. A person has a unique and dynamic pattern of thinking, feeling and acting. Some people tend to be shy and introspective and some tends to be outgoing and extroverted so, the personality is concerned with the thinking, feeling and emotions of an individual. In fact, the combination of all characteristics, attributes, and traits of an individual are responsible for framing his personality.

1.4.2 Nature of Personality

“The nature of personality is a unique system defining the personality types that express all that life has to offer through the concept of twelve archetypes. The archetypes represent the inner and outer journeys of the mind, body, spirit and soul unfolding through the psyche and the birth of the self, keeping us in with evolution and in tune to the one cosmic body” (Bran Colling Wood, 1997).

- **Unique:** - Everyone has unique personality. In this world nobody has same personality traits. Every person has some special pattern of behaviour because everyone is genetically different.
- **Dynamic:** - An individual personality is dynamic. Collinger (2008) explained the personality dynamics are the “mechanism by which personality is expressed.”
- **Product of both “heredity and environment”:** - According to psychologist, the shaping of personality is product of both “heredity and environment.” These factors have a significant role in the shaping the personality of an individual. The chromosomes of a person play a vital role for transfer of genetic makeup from parents to their progeny. The genetic influence also has the ability to direct the aptitude of an individual. According to Kurt Lewin (1890-1947) behaviour is the function of personality plus environment. $B = f(P+E)$, here B= behaviour, f= Function, P= Person, E= Environment.

1.4.3 Factors Affecting Personality

This section is about factors affecting an individual. According to psychologist a number of factors affect the personality of people.

- (1) Individual factors and
- (2) Environmental factors or biological factors, family and social factors, cultural factors, situational factors and experience of life.

Biological Factors: - I. Heredity

II. Physique

- **Heredity:** - Heredity is something that passes from generation to generation. Everyone has distinct pattern of behaviour and personality. The main reason of this kind of distinction is the influence of the “heredity and environment.” It could not be denied that the “heredity and environment” plays key role in the development and shaping of the personality of an individual. Nobody can be born without heredity and genes. Each qualities and response of a person depends in his or her “heredity and environment.” Therefore, it is very much important to understand the “heredity and environment” of an individual for the purpose of understanding his or her personality.
- **Physique:** - Each person has different physical appearance in entire world. The physical appearance of a person affects his / her personality. The structure of the body is said to be an effective factor in determining the types of one’s personality. Kretchmer (1888-1964), a German psychologist distinguish three body types of personality: - Pyknic, Asthenic, Athletic and Dysplastic type.

Biological factors: - It refers to the gender, hormone level, functioning of endocrine glands like thyroid, pituitary gland etc. which influence personality of an individual. It determines how an individual behave in special circumstances. These biological factors enable a person how to mould according to social environment for his requirements.

- **Nervous system:** - The central nervous system which includes brain and spinal cords plays key role in determining the behaviour of an individual. The brain and spinal cord of a person play a fundamental role in reaction and adjustment to a situation. So, the growth and functioning of nervous system affects personality of an individual.
- **Intelligence:** - The intelligence of an individual plays an important role in their adjustment with their environment. They are different in dealing with society, have different habit etc.

Family and social factors: - Family and social factors also determine the personality development of an individual. Home environment, family members and social groups are main factors under family and social factors:

- **Home environment:** - The home environment of a person plays a fundamental role in shaping of personality. A negative home environment is hazardous for development of a child, whereas a positive home environment is helpful for developing the qualities, traits and skills of a child. Research by Condary & Simon (1974), pointed out that frightful family generally creates introversion, emotional instability and lack of safety among children.
- **Family members:** - The personality of parents and other family members exerts the strongest impact of the development of personality of a child. They are role

model for children in his/her early stage. Their personality influenced in different ways in time to time. When parents give extra attention/love to the child, he/she has to face the problems such as nervousness, feeling of lack of security and adjustment but when children do not get proper love from their parents, children become shy and emotionally unstable.

- **Social Group:** -The family is a first social group for a child. But outside the home he/she exposed to various social groups i.e. school, friends and other groups. These types of social groups play a fundamental role in shaping the personality of a child. If a child joined an addicted group then his/ her personality can't develop like those children who joined a hard worker group. According to Hurlock (1978), On the one hand, development of children with good neighbours gain feeling of discipline, understanding, self-respect and responsibility. On the other hand, children who developed in the neighbored of criminal tendency, developed with anti-social traits. So, the development of personality of a child is influenced by people and groups he interacts with, throughout his/her life.

Cultural factors: - Both of the material and non-material culture affects the personality of a child. As it is not new that an individual gets adopted in the surrounding culture whether intentionally or unintentionally, and tries to act according to that milieu. In other words, the society in which one lives directs the actions of an individual and society also has same expectations from him or her. An individual follows the rules and regulations of his/her society. Hence, it could be said that the codes and conducts of a society plays vital role in the shaping of one`s personality be it bad or good. According to Welsh (1974), when physical punishment is used more in some cultures in parenting,

children become more hostile, aggressive and introvert whereas less use of physical punishment make children curious, creative and extrovert. Sears (1970) also point out the same results. Thus, the personality of an individual is shaped in process of adjustment in the particular society.

Environmental factors: - The people`s behaviour is also influenced by the environment. Specially two types of environment (social & physical) influences the personality of an individual. A new born baby has least knowledge about his/her environment. But after some time, he/she learns to eat, walk and engage in other activities through his/her environment. The physical environmental factors i.e. river, land, mountain, forests, hills and atmosphere etc. also influence the personality. All the feelings, emotions, attitudes, ideas, habits, behaviours and body structure of an individual is the results of physical and social environment an individual belongs to. For example, the physical appearance, colour and health of the people living in villages are distinct from the one who is living in cities.

Situational factors: - The situational factors play an important role in developing human personality. The “situational factors” of personality change accordingly to the social situation. Every individual faces the different kinds of situation in his or her life that makes him or her able to transform his or her pattern of behaviour. For instance, a teacher is harsh and adamant for his/her students and classroom but might not with his/her family member. An officer is strict for his/her subordinates in comparison to his / her family and friends. A single “situational factor” does not decides the personality of an individual. The every single factor is responsible for making the personality of an individual.

Experience of life: - Some past experience of life is also responsible of an individual personality. Positive experiences provide positive vision and negative experiences provide the negative vision of an individual. Experience during childhood, adolescence and early adult life is also responsible for developing the personality of an individual. (Miller, 1992)

1.4.4 Theories of Personality

Different types of theories have been discovered by various psychologists on the basis of behaviour, psychological types, traits etc. They are trying to describe the personality accordingly to his/her theory of personality. Some of worldwide famous theories are listed below: -

(1) Psychoanalytical theories: - The Psychoanalytical school of Psychology was established by Sigmund Freud. The Psychoanalytical school of Psychology was also known as the first force in psychology.

The main aspect of psychoanalysis is given below: -

- **Topographical structure:** - In this structure Sigmund Freud (1900) describes the model of human mind. In this model he has divided the human mind into three layers / types/ regions: - (1) Conscious, (2) Subconscious, (3) Unconscious.
 - **Conscious:** - It is first layer of our mind where our current thoughts, feelings and focus live. It has a group of present thoughts, feelings and activities. Human beings are always aware about this.
 - **Subconscious:** - It is second layer of our mind. It has saved the previous feeling and thoughts, and we are not aware about this. But we recall or retrieve these feelings and thoughts from our memory.

- **Unconscious:** - It is the deepest level of our mind which is most important according to Sigmund Freud.
- **Structure of dynamic model:** - In this structure Freud stated that three parts of human personality. These parts interact with one another and became the heart of this theory. Id, Ego, and Super Ego.
 - **Id:** - It is storage of basic instinct and drives by the principle of pleasure. It is fully unconscious and wants only pleasure. He observed the higher degree of Id in the personality of a child.
 - **Ego:** - It is executive of a personality of an individual. It drives by the principle of reality. It is slightly Conscious, Subconscious and slightly Unconscious.
 - **Super ego:** - It is moral commander of a personality of an individual. It drives through the principle of morality. It has storage of ideas and morality. It plays a fundamental role in the socialization of children.
- **Anxiety and mental mechanism:** - According to Sigmund Freud it is an unpleasant state. Freud stated that the three types of anxieties – “realistic anxiety,” “neurotic anxiety” and “moral anxiety.” Realistic anxiety is also called the objective anxiety.
- **Psychosexual development:** - Sigmund Freud described the five stage of Psychosexual Development.
 - **Oral stage:** - It is the first stage of child. In this stage the libido is centred in child`s mouth. This stage starts from the birth of a child and continue till 1 year. Throughout this stage a child knows the world through his/her mouth activities.

- **Anal stage:** - This stage starts from 1 year and continue till three years. In this stage the “libido” is centred on the anus, and the child derives great pleasure from defecating.
- **Phallic stage:** - This stage is showed in 4 & 5 year of a child. In this stage sensitivity becomes concentrated in the genitals. The baby becomes well aware of anatomical sex distinctions that sets in motion the clash between erotic attractions, antagonism, conflict, jealousy and angst which Freud termed as the “Oedipus complex” in boys and “Electra complex” in girls.
- **Latency stage:** - This stage starts from 6 to 7 year and continue till 12 years. No further psychosexual development takes place during this stage. The libido is dormant.
- **Genital stage:** - It is the last stage of Sigmund Freud (1900) Psychosexual theory of personality and being puberty.

(2) **Behavioural theories:** - The behavioural theories of personality believe that the personality is the result of an individual interaction with the environment. The behavioural psychologist B. F. Skinner, I. P. Pavlov and John Watson etc., argue that, the behaviour of a person plays a significant role for shaping the personality of a human being. They explain the personality in term of the impact of stimuli on behaviour. The behavioural theory of personality is extended by Richard Herrnstein. He included the analysis, attitudes and attributes and believes that attributes have a larger segment of genetics.

(3) **Social cognitive theories:** - These types of personality theories emphasize cognitive process i.e. thinking and judging in the personality. The cognitive affective personality

model was given by Walter Mischel & Ayduk (2002). This model is helpful to shape the “social cognitive theory” of personality. Bandura (1961); Tolman & Honzik (1930) also made additional contribution to social cognitive theory of personality.

(4) Humanities theories: - The major advocate of “humanistic theory” are Abraham Maslow (1908-1970) and Carl Rogers (1902-1987). The humanities theories of personality emphasize personal responsibility. This theory doesn't deny the importance of previous experience, but they generally focus on the present. It stresses the importance of an individual growth. ”When the only tool own is a hammer, every problem begins to resemble a nail” Abraham Maslow.

(5) Type theories: - Type theories were oldest theory of personality. According to type theory a person is classified into different groups, and on the ground of the category that describes his traits. The theory was first given by Hippocrates (400 B.C.). He mentioned four categories of an individual on the basis of bodily fluid or humours. According to him our body has four bodily fluids – “Yellow bile”, “Black bile”, “Blood”, and “Phlegm”. The excess of any one bodily fluid describes the personality of an individual. The excess of yellow bile in a body is called choleric, excess of black bile called melancholic, excess of blood is called sanguine, and the excess of Phlegm is called phlegmatic.

- Choleric- Irritable, restless, Hot - blooded
- Melancholic- Depressed, Moody
- Sanguine- Cheerful, confident
- Phlegmatic- Calm, inactiveness

William Sheldon: - On the basis of bodily characteristics Sheldon and Kretchmer classified the personality of an individual. Sheldon (1940) gave a theory of personality on the basis of physique of an individual. That theory is called somatotype theory of personality.

Sheldon studied the 4000 naked picture of college students, and given the three types of personality. He calculated the correlation between each types and trait and correlation was 0.78 and more.

Three types of personality given by Sheldon (1940):

1. Endomorphic
2. Mesomorphic
3. Ectomorphic

Kretchmer (1888-1964): - He was a German psychiatric. On the basis of bodily characteristics, he classified the four types of personality of an individual. Kretchmer described his theory on the basis of observation of schizophrenia and manic depressed patients.

The four types of personality are:

1. Pyknic type
2. Asthenic type
3. Athletic type
4. Dysplastic type

On the basis of psychological characteristics: -: Some psychologist such as Jung (1923), Eysenck and Guildford, classified the personality on the basis of psychological characteristics.

Carl Jung (1923): - Carl Jung`s (1923) theory is a theory of personality which includes typology of introversion and extroversion. He accepted Sigmund Freud`s (1900) theory that unconscious conflicts play very significant part in making the personality of a person. Jung was Swiss psychologist and introduced this theory in his book 'Psychological Types.' This book is a result of his twenty years of research work in respective fields. He introduced the concept of introversion and extroversion in field of Psychology.

The introvert person wants private space, lack of sociability and prefer own world of thoughts. Whereas, an extroversion person wants a social network for interaction with other people of his society as well as other societies. They are more sociable compare to introvert. According to Carl Jung (1923), thinking and sensation are rational; whereas intuition and feeling are irrational.

Jung defined various types of personality (1923): - Extroverted Sensing, Introverted Sensing, Extroverted Intuition, Introverted Intuition, Introverted thinking, Extraverted Feeling, and Introverted Feeling.

Eysenck (1923): - Eysenck (1947) described his personality theory on the basis of psychological characteristics of an individual. He studied on 10000 Normal and neurotic people for verification of Carl Jung`s theory of personality. Then applied the special statistical technique and then collected data on 10000 people. Finally, he categorized the people into three types of personality (bipolar).

1. Introversion – Extroversion.
2. Neuroticism – Emotional Stability.
3. Psychoticism – Sociability.

1.4.5 Five Factor Model (FFM) of Personality

Costa & McCrae, 1994; Hogan, 1983; McCrae 1994; Noller, Law & Comery, 1987 are agreed on bipolar dimension of personality. The FFM of personality is “a hierarchical organization of personality traits” of an individual. The “five factors” of personality are “Extroversion” (E), “Agreeableness” (A), “Conscientiousness” (C), “Neuroticism” (N), and “Openness to experience” (O). The above dimension of personality is mainly used in the research and other studies related to personality. FFM is a collection of five broad personality domains.

(1) Openness to experience: - The higher score of this domain refers to imagination and insight. These types of people are always curious about the world and to be more adventurous and creative. The lack of this domain is referring to be conventional. The research found that highly correlation between openness to experience and goal of self-direction. Some common traits related to openness to experience type of personality are: - Imagination, Insightfulness, Creativity, Curiosity, Intellect, and Daringness.

(2) Conscientiousness: - This personality domain is referred to the high level of thinking and goal direction behaviour of an individual. This type of person is organized and mindful of details. Those who have low score of this dimension are irresponsible and unscrupulous. Conscientiousness has two aspects, a proactive and an inhibitive aspect. Some traits related to this domain of personality are: - Persistence, Ambition, Self-discipline, Control, Reliability, Predictability, Hard work, Planning.

(3) Extroversion: - It refers to sociability, talkativeness and assertiveness etc. Those people have high expectations are outgoing and more social. They always want a big social network and are helping in nature. Some traits associated with this domain are: -

Social confidence, Outgoing nature, Energy, Fun-loving nature, Merriness, Tendency for Affection.

(4) Agreeableness: - It refers to good natured, complacent and cooperative. The lack of agreeableness refers to irritability and suspiciousness etc. Traits under this domain are: - Altruism, Trust, Modesty, Humbleness, Politeness, and Kindness.

(5) Neuroticism: - It refers to sadness, anger, moodiness and insecurity. These types of people suffer from anxiety, sadness and irritability. The lack of this domain of personality refers to be calm, poised and emotionally stable. Traits under this domain are: - Pessimism, Moodiness, Jealousy, Fear, Nervousness, Anxiety and Timidity.

1.4.6 Internet Addiction and Personality

“Personality can be described as distinctive patterns and specific characteristics of thinking, emotion and behaviour which determine the style of interaction with the physical and social environment” (Kalichman, Cain, Zweben, & Swain, 2003). “It is believed that personality characteristics such as experience acceptance, loyalty, extroversion, harmony, and neurosis affect a wide range of human activities including sexual behaviour” (Rentfrow & Gosling, 2003), listening to favourite music (Landers & Lounsbury, 2006) and rate of using technologies, especially the Internet, by people (Hogan, Johnson, & Briggs, 1997). “The mode and rate of using the Internet by people can reflect their needs, preferences, values, personal motivations, and personality characteristics” (Zamani, Abedini & Kheredmand, 2011). In present scenario internet plays very significant part in the field of teaching-learning (Kafyulilo, 2012). It plays significant role in the life of internet users and affects their life in both positive and negative ways. A student completes his/her homework and project work with the help

of the Internet. Teachers also find the new innovation very much helpful in related fields. The internet is not only about the sharing information, but also a tool for searching something new about his/her problem and ways of entertainment.

But the excessive use of internet is dangerous for the users and hazardous for a nation. Its impact is highly dangerous for students` physical as well as mental health. The excessive use of this technology is also affecting the personality and pattern of life style of users.

1.5 Mental Health

Mental health plays key role for the growth of the people and it is very important for productiveness of a nation. It is responsible for a happy and healthy life for the people of a nation across the world. “The World Health Organization” defines health as “physical, social, spiritual and mental health, and not merely the absence of disease or infirmity.”

Mental health is an essential component of overall well-being of a person. There is no health without the mental health of a person. At present, the health of people is changing because of the sociodemographic and epidemiological transactions. These days, people are working like machines because of constant craving for growth and maintenance of high living standards.

A lot of researches have been done in India and abroad related to mental health. These researches found numerous issues related to mental health of people. All researches found alcohol, drug abuse, internet addiction and suicidal behaviours as common mental health related issues. “The World Health Organization” (WHO) has

defined mental health as a “state of well-being in which every individual realize his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to his or her community.”

Mental health of people is always associated with their physical health and behaviour. It is very important for growth of a person mentally, physically as well as economically. A healthy person is well aware of his responsibility and abilities. He/she can easily cope with normal stresses of his/her life and able to help the society in which he/she lives. It indicates that the health, happiness, and well-being of a community depends on the mental health of the people. Mental health, physical health and social functioning are interdependent on each other. Mental health of a person is affected on how one think, feel, act and handle the problematic situations. Mental health is important for a person at every stage of his/her life i.e. childhood, adolescence, adulthood and old age.

Medilexicon's medical dictionary defines mental health as:- “Emotional, behavioural and social maturity or normality, the absence of mental or behavioural disorders, a state of psychological well-being in which one has achieved a satisfactory integration of one's instinctual drives acceptable to both oneself and one's social milieu, an appropriate balance of love, work and leisure pursuits”

Concepts of Mental Health:

- Mental health is an absence of mental disorder.
- Mental health is an indication of a good mental functioning, good relationship with other people and ability to adjust in any types of environment.
- Mental health is good psychological condition of the mind.

- Mental health refers to person's cognitive, behavioural and emotional well-being
- Mental health is to cope with the stresses of life.
- Mental health is to work productively.
- Mental health makes meaningful contributions to the community.
- Mental health is connecting with others and staying positive.
- Mental health is being physically active and helping others.

1.5.1 Definitions of Mental Health

- "Mental health is the full and harmonious functioning of the whole personality"
Hadfield.
- "Mental health means the ability of make adequate adjustment of the environment on the plane of reality" Ladell.
- "Mental health as the adjustment of human being to the world and to each other with a maximum of effectiveness and happiness". K. A. Meninger
- "Mental health is an adjustment which is relatively good enough if it both reduce the tension created by conflict of frustration and makes constructive changes in the condition causing the frustration". R. C. Kulha
- "Mental health means the ability to balance feeling, desires, ambitions and ideals in one's daily life. It means the ability to face and accept the realities of life". Kuppuswami.
- Crow & Crow (1951) defined "mental hygiene is a science that deals with human welfare and pervades all field of human relationship".

- According to Driver (1952) “Mental hygiene means investigation of the laws of the mental health, and the taking or advocacy of measures for its presentation”.
- According to Kleine D. B. (1965) “Mental hygiene and its name suggest is concerned with the realization and the maintenance of the mind health and efficiency”.

1.5.2 Criteria of mental health

- **The criterion of mental efficiency:** - The mental health and mental efficiency are closely related to each other. The efficiency refers to the effective use of our capacity for observation, imagination, learning, thinking and choosing as well as the continuous development of mental functions to a higher level of efficiency. It can be seen that mental health have direct relation to mental efficiency as physical health to physical efficiency. Just as a sick child can't play or study well, an emotionally disturbed person can't observe, think and learn effectively.
- **Control and integration of thought and conduct:** - A good mental health is always characterized by control and integration of thoughts and conduct. Those having poor mental health can't be integrated and control their thoughts. Effective control is a sign of good mental process and healthy personality. So, without such control, obsession, fixed ideas, phobias and other symptoms are likely to develop.
- **Integration of motives and control of conflict and frustration:** - Those having a good mental health can integrate their motives and control the conflicts. If motives are not integrated, it can be resulted in serious conflicts.

Only a mentally healthy person can easily integrate the motives and control conflicts and frustration.

- **Positive healthy feelings and emotions:** - Positivity is a symptom of good mental health and negativity causes disruption of mental stability. All types of negative feelings i.e. jealousy, insecurity, inferiority and guilt are signs of emotional disruption and they can lead to mental illness. All types of positive feelings i.e. love, belonging and security are a contribution to good mental health.
- **Peace of mind:** - Peace of mind is emotional and mental calmness. It has no worries, no fears or stress. An individual feel quietness, sense of happiness and freedom when he/she experiences peace of mind. So, all types of positive feelings are symptoms of a peaceful mind.

1.5.3 Characteristics of Good Mental Health

- A person enjoying all moments of his life which indicates to good mental health.
- A person who can handle the stressful situation better compared to others.
- One who makes a balance in his/her personal life results in good mental health. A healthy person spends his/her time judiciously for all types of activities i.e. social, family and self-activities.
- Flexibility is also a characteristic of mentally healthy person. A mentally healthy person is not rigid. He/she is flexible according to time and situation. Flexible exception is one the indicators of good mental health.
- A mentally healthy person has the ability or capacity to learn something new from his/her surrounding environments.

1.5.4 Characteristics of Mentally Healthy Person

- A mentally healthy person always understands his/her positive and negative characteristics or points. He/she measures his/her behaviour and find out his/her weakness. He/she always feels secure in peer groups.
- A mentally healthy person is well adjusted person in all types of environment. He always understands the problem of another person.
- A mentally healthy person is always ready to face all types of problems and has ability to solve those problems.
- A mentally healthy person develops his/her own philosophy of life.
- Such types of people live in real world.
- A mentally healthy person develops an ability to reduce the frustration and disappointments in his/her daily routine life.
- They have a sense of responsibility.
- They have a variety of interests.
- A mentally healthy person is always physically healthy.
- A mentally healthy person has realistic approach in life.
- They create a good relationship with others.
- They have feelings about themselves and others.
- A mentally healthy person has creative mind and positive thinking.
- They are self - disciplined.
- They are always happy and joyful with their family, friends and environment.

1.5.5 Mental Hygiene

Mental hygiene plays a very significant part in maintaining the adjustment and adaptation of an individual. Mental hygiene refers to protection and encouragement towards mental health. It always works for promotion of mental health. The mental hygienists organize seminars, workshops and other awareness programmes regarding mental health.

Maintaining positive mental health: - A positive mental health is very essential for overall well-being an individual in particular and the society in general. The maintenance of positive mental health depends upon a person`s ability, intelligence, tolerance, skills, strengths and life style. It depends on many personal, social, psychological, and cultural factors. The overall maintenance of positive mental health depends upon a person`s attitude towards difficulties and challenges in the life, and the way she/he tries to cope up with all these. There are some important positive aspects of metal health of an individual which helps him/her to maintain a certain degree of positiveness in the life of himself/herself and the society as well, as follows:

- **Stress resistant personality:** - A person with logical and rational attitude towards life always considers problems and issues in the life as normal and tries to solve them with intellectual skills and always focuses on positive aspects.
- **Life skills:** - An individual`s life skills such as self-awareness, critical thinking, interpersonal skills, intrapersonal skills, stress managements, time managements, and positive thinking helps him/her easily to cope up with every difficulty in the life. These abilities make him/her strong in every aspect of life, and helps in maintaining positive mental health.

- **Assertiveness:** - Assertiveness serves as a source of self-confidence and high self-esteem. It is a quality which enables a person to speak his/her point across without hesitation and shyness, and without prohibiting or hurting others in a positive manner. It helps in development of positive personality.
- **Time management:** - In the modern world, time management plays significant role in the maintenance of positive mental health. Poor time management can cause stress, whereas good time management helps to complete the assigned tasks in disciplined manner. It determines the quality of life of a person, and is an essential asset to maintain positive mental health.
- **Rational thinking:** - There should be a positive relation between the mode of one's feeling and acting in this realistic world. Rational thinking and pragmatic attitude are the key factors to an individual's positive mental health. It helps to stay away from negative energy.
- **Improving relationship:** - Communication is the key to maintain and improve relationship. The main components to maintain communication includes listening consciously, expressing oneself, and open to other feelings, ideas, and emotions.
- **Self-care:** - It is important for an individual to be able to pay proper attention towards the self and the milieu in order to maintain peace of mind and positive mood. It helps to cope up with the environmental stresses and the external problems.
- **Overcoming unhelpful habits:** - Habits play vital role in an individual's life and the people around. A sensible soul should always stay away from being habitual to unhealthy habits.

1.5.6 Mental Health and Internet Addiction

There are various studies conducted on internet addiction and mental health of users reports that it is “mental health which features lack of patience, symptoms of isolation and emotional disturbances and interruption of social relationship” (Goldberg, 1996). Sign and symptoms of internet addiction disorder are both emotional and physical (Masih & Rajkumar, 2019). Some of the most significant emotional symptoms of internet addicted people are anxiety, depression, loneliness and mood swings (Hurley, 2008; Akin & Iskender, 2011; Gregory, 2019; kuss & Lopez-Fernandez, 2016; Tao et al., 2010). Physical symptoms of internet addicted people include sudden loss and gain of weight, poor nutrition, eye-sight, insomnia, neck pain, backache and headache (Gregory, 2019; Tao et al. 2010). Depression, hopelessness, having loss of interest in daily activities are some of the symptoms of mental health problem due to excessive use of internet (Cunningham, Gulliver, Farrer, Bennett & Carron-Arthur, 2014; Greydanus & Greydanus, 2012). Internet addiction is the major challenge in the world of mental health. The unnecessary and excess use of internet is turning people insensitive towards the society, other living beings, and other issues. It has taken shape of a serious disease in the postmodern society. It is causing many psychological disorders and personality syndromes to the people who uses it in excess across the world.

1.6 Operational Definition of Variables

1.6.1 Internet Addiction

The level of internet addiction was established empirically. The people who score above P_{33} (Percentile) and less P_{67} (Percentile) were termed as moderate internet addicted.

1.6.2 Personality

In present study, the researcher has used personality inventory by Costa and McCrae (1992). “NEO Five Factor Personality Inventory” (NEO-FFI) by Costa & McCrae (1992) includes five factors of personality as “Neuroticism” (N), “Extraversion” (E), “Openness” (O), “Agreeableness” (A) and “Conscientiousness” (C).

1.6.3 Mental Health

The researcher has used the term mental health as described in the positive mental health inventory by Aghesh & Helode (2008). In the present research, mental health is assessed as total score of three dimension of mental health- self acceptance, ego strength and philosophies of life.

1.6.4 Professional Course

In the present research professional courses include “Doctor of Philosophy,” “Doctor of Education,” “Veterinary Medicine,” “Law,” “Dentistry,” “Medicine,” “Doctor of Physical Therapy,” “Engineering,” “Business,” “Administration,” “Nursing,” “Pharmacy,” “Architecture,” and many more.

1.6.5 Non-Professional Course

In the present research non-professional course include the courses which gives degree in the fields like arts, commerce, basic science, humanities, social work, drama, fine arts, music, and creative writings.

1.7 Statement of the Problem

The availability and mobility of new media has led to the emergence of internet addiction as a potential problem among youth. Nowadays, internet has become a part of life of people from all age groups. It is playing a prominent role in the lives of youth

and it affects their day-to-day lives. Internet has both the positive as well as negative effects on the lives of youth. Excessive internet usage can interfere in various life spheres of people such poor social and personal relationship, mental state, psychological and physical well-being of youth. Therefore, the proposed research focuses on the **“Effect of Internet Addiction on Personality and Mental Health: Analysis of Students Enrolled in Professional and Non-Professional Courses.”**

1.8 Significance of the Study

In present scenario, people can use internet in a productive manner. A number of universities and institutes provides facility of Wi-Fi/internet to their students. However, very few students utilize this facility for good use, others use it for text chatting, pornography and other illegal works (Yu & Chao, 2016). This facility of the internet is beneficial for the students but side by side it is harmful for their physical health, mental health and psychological well-being (Oskenbay et al. 2015; Ying, 2015 & Kootesh et al. 2016). In addition, some personality traits like social withdrawal, shyness, introversion are linked with particular types of internet addiction like computer addiction (Griffiths, 1995). Andreassen et al. (2013); Sinazadra et al., (2016); Truzoli et al., (2016); Zhou et al., (2017); Gervasi et al., (2017), Balchino et al., (2017) also examined the association between “internet addiction” and personality. Aggression, narcissistic personality components, poor self-control may predispose some individual to become addicted to online activities (Kim et al., 2008). Internet addiction has become a serious mental health issue worldwide as addicted people impaired in various behavioural aspects including social interaction and academic performance (Scherer, 1997 & Young, 1998). While a few studies (Ying, 2015) evaluating the effects of internet addiction on depression, stress, anxiety etc, to our knowledge very few studies as yet have assessed

the effect of internet addiction, personality and mental health of professional and non-professional students. With the help of this study, we will find out the effects of internet addiction on personality and mental health of students.

1.9 Objectives of the Study

Objective: - 1. To study the effect of internet addiction on personality factors.

- 1.1. To study the effect of internet addiction on personality factor neuroticism.
- 1.2. To study the effect of internet addiction on personality factor extraversion.
- 1.3. To study the effect of internet addiction on personality factor openness.
- 1.4. To study the effect of internet addiction on personality factor agreeableness.
- 1.5. To study the effect of internet addiction on personality factor conscientiousness.

Objective: - 2. To study the effect of type of courses on personality factors.

- 2.1. To study the effect of type of courses on personality factor neuroticism.
- 2.2. To study the effect of type of courses on personality factor extraversion.
- 2.3. To study the effect of type of courses on personality factor openness.
- 2.4. To study the effect of type of courses on personality factor agreeableness.
- 2.5. To study the effect of type of courses on personality factor conscientiousness.

Objective: - 3. To study the interactive effect of internet addiction and type of courses on personality factors.

- 3.1. To study the interactive effect of internet addiction and type of courses on personality factor neuroticism.
- 3.2. To study the interactive effect of internet addiction and type of courses on personality factor extraversion.

- 3.3. To study the interactive effect of internet addiction and type of courses on personality factor openness.
- 3.4. To study the interactive effect of internet addiction and type of courses on personality factor agreeableness.
- 3.5. To study the interactive effect of internet addiction and type of courses on personality factor conscientiousness.

Objective: 4. To study the effect of internet addiction on mental health.

Objective: - 5. To study the effect of type of courses on mental health.

Objective: - 6. To study the interactive effect of internet addiction and type of courses on mental health.

1.10 Hypotheses of the Study

Hypothesis: -1. There will be no significant effect of internet addiction on personality factors.

Hypothesis: -1.1. There will be no significant effect of internet addiction on personality factor neuroticism.

Hypothesis: -1.2. There will be no significant effect of internet addiction on personality factor extraversion.

Hypothesis: -1.3. There will be no significant effect of internet addiction on personality factor openness.

Hypothesis: -1.4. There will be no significant effect of internet addiction on personality factor agreeableness.

Hypothesis: -1.5. There will be no significant effect of internet addiction on personality factor conscientiousness.

Hypothesis: -2. There will be no significant effect of type of courses on personality factors.

Hypothesis: -2.1. There will be no significant effect of type of courses on personality factor neuroticism.

Hypothesis: -2.2. There will be no significant effect of type of courses on personality factor extraversion.

Hypothesis: -2.3. There will be no significant effect of type of courses on personality factor openness.

Hypothesis: -2.4. There will be no significant effect of type of courses on personality factor agreeableness.

Hypothesis: -2.5. There will be no significant effect of type of courses on personality factor conscientiousness.

Hypothesis: -3. There will be no significant interactive effect of internet addiction and type of courses on personality factors.

Hypothesis: -3.1. There will be no significant interactive effect of internet addiction and type of courses on personality factor neuroticism.

Hypothesis: -3.2. There will be no significant interactive effect of internet addiction and type of courses on personality factor extraversion.

Hypothesis: -3.3. There will be no significant interactive effect of internet addiction and type of courses on personality factor openness.

Hypothesis: -3.4. There will be no significant interactive effect of internet addiction and type of courses on personality factor agreeableness.

Hypothesis: -3.5. There will be no significant interactive effect of internet addiction and type of courses on personality factor conscientiousness.

Hypothesis: -4. There will be no significant effect of internet addiction on mental health.

Hypothesis: -5. There will be no significant effect of type of courses on mental health.

Hypothesis: -6. There will be no significant interactive effect of internet addiction and type of courses on mental health.

1.11 Delimitation of the Study

1. The study is delimited to colleges/universities of Haryana.
2. The study is delimited to P.G. and U.G. students of colleges/ Universities.
3. The study is delimited to students who are pursuing professional and non-professional courses in the colleges and universities.
4. The study is delimited to only twelve selected universities, colleges, and institutes.
5. The study is also delimited to variables effect of internet addiction on personality and mental health.