INTRODUCTION

Multimedia like-Mobile Phone, Internet, Television, Video game etc are frequently used by young children, adolescents and adults, it is an integral part of their everyday life as they are totally dependent on it for studies, communication, entertainment, shopping etc. Multimedia has made lives easier and comfortable, and one cannot imagine life without multimedia even for a day. Use of multimedia is essential to make the life’s task easier but its abnormal excessive and unnecessary use leads to addiction and makes life more difficult. According to Young (1998), adolescents are particularly vulnerable to technology addiction. They have poor coping mechanisms. When they face stress, they often choose what is comforting them, usually something easy to focus on such as online videos or social media sites. Also in adolescents, self identity is uncertain so most adolescents struggle to understand how to present themselves and by the mean time multimedia helps them in doing so. As the usage of the Multimedia is growing rapidly each year and Multimedia addiction is becoming a problem among some users. Addicted persons may come from all walks of life and as a result they suffer in their everyday life in the situation such as school, family, work and relationship (Chebbi, et al., 2000).

1.1 Adolescents and Multimedia

According to the World Health Organization (WHO, 2014) adolescence is the period from 10-19 years of age, mainly characterized by physical, psychological and sociological growth that transforms the dependent child into a
functionally independent young adult. Adolescence is “the period of life beginning with puberty and ending with completed growth and physical maturity which spans ages 12 to 21 years in females and 13 to 22 years in males. Adolescence is divided into three stages; early (10-13 years), mid (14-16 years) and late (17 to early 20s).

The term ‘adolescence’ is derived from the Latin word *adolescere*, meaning ‘to grow up’ or ‘to grow up adulthood’, thus referring to a development phase in the human life cycle that is situated between childhood and adulthood. Adolescent age is the most critical and hard period of life. In this period an adolescent gets the totality of his/her physical and mental development and the level of energy is also very high in them. Adolescent age is considered as a transitional phase, ‘a status passage’ between childhood and adulthood and in this transition phase bodily, emotional and social changes occur and these fully occupy the attention of the adolescents. The society in which adolescents live is constantly changing, demanding that adolescents cope up not only with their own development but also with the challenges of technological advances. At the present time a world without Computer, Mobile Phone and Video game is unthinkable in the life of an adolescent. Growing up in the age of Multimedia technology has made Computer or Mobile phone and Video game accessible to almost every adolescent. Words like Blogs, You tube, Facebook, Instagram and Twitter now form part of the adolescent’s local vocabulary. Adolescent are almost exclusively socializing and communicating through Mobile phones and the Internet. The impact of social networking like Facebook, Whatsapp, and hike
can be seen on school ground where adolescents are constantly typing on their Mobile phones *(Rideout, et al., 2010)*.

Adolescent are currently growing up with multimedia and they use different types of multimedia like mobile phone, internet, video game, tablets, and I-pads etc. Some adolescents use it for just mere communication and some use for entertainment (watching movies, listening song, playing video game), Online shopping, browsing for educational material etc other than communication. Multimedia has become more important in the last decades for adolescents, and they are heavy users of multimedia. Adolescents use instant messaging and social networking sites (facebook, whatsapp, hike, twitter etc) to keep in touch with their friends and they use blogs to share details of their daily lives. Adolescent’s digital world is enriched by anonymous online contexts, like bulletin boards, massively multiplayer online games (MMOGs) and chat rooms where they search for information, find support, play games, role play or participate in conversations *(Subrahmanyam & Greenfield, 2008)*. The main types of multimedia addictions currently being considered for inclusion in DSM-V are those involving Internet, Mobile phone, Video game and Television all of which are main multimedia used by adolescents for communication, entertainment and study purpose.

### 1.2 Adolescents Personality and multimedia

Personality can be defined as a dynamic and organized set of characteristics possessed by a person that uniquely influences his or her cognition, motivations, and behaviours in various situations *(Haghshenas, 2006)*. According to *Rose, et al. (2010)* Personality is “the enduring emotional,
interpersonal, experiential, attitudinal and motivational style that explains individual’s behavior in different situations”

Mobile phone, television, video games, movies and internet have assumed central roles in adolescent’s daily lives. The multimedia has demonstrated potentially profound effects both positive and negative, on adolescent’s social, cognitive and personality development. Adolescent’s personality development is largely affected by all form of multimedia. Early warning sign of Multimedia addictions are related to negative changes in adolescent’s personality. Excessive use of Multimedia makes the adolescents strong in technical skills but make them weak in real life practical skills. It takes the adolescents away from the reality world and helping them to live in their imaginary world. Due to the time spent on the multimedia through Internet, mobile, television and video game, the adolescents are refrained outdoor activities with their friends and families. When adolescents play video games and they can’t achieve their set target, their anxiety and depression level increases very high. Violent content of video games create violent in their mind and affect their personality negatively. The adolescent is psychologically addicted to the social Medias like Facebook, Instagram, Whatsapp, Twitter, etc. and they are spending so much time on social networking sites. The social networking sites are totally changed adolescent’s vocabulary and increase poor grammar and spelling, sending message through social networking sites has no grammar. The usage of poor punctuation, bad spelling and grammar reflects negatively in adolescent’s personality. Excessive use of all multimedia addiction may develop unhealthy lifestyle and poor time
management among adolescents and making them more prone to depression, anxiety and other psychological disorders.

Adolescents who used excessive internet, mobile phones, video game and television constantly may be exposed to a decrease in the time allocated to other social relations; especially relations based on face to face interaction and this situation make them lonely. Although multimedia has used as communication, study, entertainment etc, but excessive use of these multimedia have causes adolescents to become addicted. The most important significant characteristics of an addictive disorder is that it involves dependency. Even if Multimedia addiction disorder interferes with other activities and is harmful to the adolescent, the addict adolescent may unable to stop engaging in this behaviour. The most significant Multimedia addictions involve the Mobile phone, Internet, Television and Video games.

1.3 Addiction

According to Potenza (2006), “addiction” comes from “addicere” in Latin, meaning “bound to” or “enslaved by”. Initially, the concept of addiction was used as a non-specific references to a variety of social behaviours, but is most often linked to alcohol abuse behaviours. Goodman (1990) defined addiction as: a process whereby a behaviour, that can function both to produce pleasure and to provide escape from internal discomfort, is employed in a pattern characterized by-

(1) Recurrent failure to control the behaviour (powerlessness)

(2) Continuation of the behaviour despite significant negative consequences (unmanageability). Drugs and other substances have been used for thousands of
years. By the mid 1800s, the terms drug abuse and addiction had been introduced and problems associated with addiction were growing. In 1952, the American Medical Association defined alcoholism, and in the late 1970s, the term alcoholism was gradually replaced by the concept of substance dependence. The terms abuse and addiction have been defined and re-defined over the years. Traditionally, addiction has been defined as physical and psychological dependence on psychoactive substances (for example alcohol, tobacco, heroin and other drugs) which cross the blood-brain barrier and, once ingested, temporarily alter the chemical milieu of the brain. In 1957, the Expert Committee on Addiction-Producing Drugs defined addiction and habituation as components of drug abuse (WHO, 1957). Some psychology professionals now define addiction as including abnormal psychological dependency on a variety of things, such as gambling, food, sex, pornography, computers, Internet, work, exercise, watching TV or certain types of non-pornographic videos, spiritual obsession, cutting and shopping (Morrissey, Keogh, & Doyle, 2008). In the next section, the three addiction conceptual frameworks are discussed: substance dependence, pathological gambling, and multimedia addiction.

**Substance dependence:**

Substance dependence, pathological gambling, and multimedia addiction all share characteristics of IA in terms of the core components of addiction. Substance dependence has been defined as a neurobiological disease with genetic, psychological and environmental factors causing one or more of the following: behaviour-impaired control, compulsive use, continued use despite harm, and craving (American Academy of Pain Medicine, American Pain
The American Psychiatric Association (APA, 2000) expanded this definition to include seven characteristics of substance dependence: tolerance; withdrawal; increasing amount and period of use; unsuccessful efforts to control the use; lengthy time periods spent on activities to obtain drugs; cessation of important social, occupation or recreational activities; and continuation of substance use despite physical and mental health problems. The added specificity allows for a more sophisticated understanding of the behaviours now described as substance dependence and covers not only drug addiction but also alcohol addiction. The APA’s definition (2000) now represents the most widely accepted diagnostic criteria used in research and clinical care. For example, a recent version of the International Statistical Classification of Diseases and Related Health Problems, ICD-10 (WHO, 2007) described drug addiction as a strong desire to take the drug, difficulties in controlling its use, persisting in its use despite harmful consequences, drugs use becoming a priority, tolerance, and physical withdrawal, all of which mirror the APA definition and criteria. Specifically, the Diagnostic and Statistical Manual of Mental Disorders (text revision) defines substance dependence as: A maladaptive pattern of substance use, leading to clinically significant impairment or distress, as manifested by three (or more) of the following, occurring at any time in the same 12-month period:

1. Tolerance, as defined by either of the following:

   a. A need for markedly increased amounts of the substance to achieve intoxication or desired effect
(b) Markedly diminished effect with continued use of the same amount of the substance

(2) Withdrawal, as manifested by either of the following:

(a) The characteristic withdrawal syndrome for the substance (refer to Criteria A and B of the criteria sets for Withdrawal from the specific substances)

(b) The same (or a closely related) substance is taken to relieve or avoid withdrawal symptoms

(3) The substance is often taken in larger amounts or over a longer period than was intended

(4) There is a persistent desire or unsuccessful efforts to cut down or control substance use

(5) A great deal of time is spent in activities necessary to obtain the substance (e.g., visiting multiple doctors or driving long distances), use the substance (e.g., chain-smoking), or recover from its effects

(6) Important social, occupational, or recreational activities are given up or reduced because of substance use

(7) The substance use is continued despite knowledge of having a persistent or recurrent physical or psychological problem that is likely to have been caused or exacerbated by the substance (e.g.),

Current cocaine use despite recognition of cocaine-induced depression, or continued drinking despite recognition that an ulcer was made worse by alcohol consumption) Specify if: With Physiological Dependence: evidence of tolerance or withdrawal (i.e., either Item 1 or 2 is present) Without Physiological
Dependence: no evidence of tolerance or withdrawal (i.e., neither Item 1 nor 2 is present) (American Psychiatric Association, 2000a, substance dependence).

Pathological gambling:

The International Statistical Classification of Diseases and Related Health Problems, 10th version (ICD-10), categorizes pathological gambling as a subset of habit and impulse disorders, asserting that this disorder consists of frequent, repeated episodes of gambling that dominate the person’s life causing the impairment of social, occupational, material, and family values and commitments (WHO, 2007). From the mental health point of view, pathological gambling is diagnosed if individuals meet at least five (or more) of the following criteria:

A. Persistent and recurrent maladaptive gambling behaviour as indicated by five (or more) of the following:

1. Is preoccupied with gambling (e.g., preoccupied with reliving past gambling experiences, handicapping or planning the next venture, or thinking of ways to get money with which to gamble)

2. Needs to gamble with increasing amounts of money in order to achieve the desired excitement

3. Has repeated unsuccessful efforts to control, cut back, or stop gambling

4. Is restless or irritable when attempting to cut down or stop gambling

5. Gambles as a way of escaping from problems or of relieving a dysphonic mood (e.g., feelings of helplessness, guilt, anxiety, depression)

6. After losing money gambling, often returns another day to get even ("chasing" one's losses) (7) Lies to family members, therapist, or others to conceal the extent of involvement with gambling
(8) Has committed illegal acts such as forgery, fraud, theft, or embezzlement to finance gambling

(9) Has jeopardized or lost a significant relationship, job, or educational or career opportunity because of gambling

(10) Relies on others to provide money to relieve a desperate financial situation caused by gambling

B. The gambling behaviour is not better accounted for by a Manic Episode (American Psychiatric Association, 2000b, pathological gambling).

1.4 Multimedia Addiction:

A multitude of new multimedia technologies have been developed over the last 50-75 years that have altered the way people travel, live and interact. These new multimedia technologies have increased people’s capacities and abilities. However, they may also lead to maladaptive behaviours. It has been asserted that all forms of multimedia technology are bound to impact on their users, in both positive and negative ways. The emergence of this form of addiction is based on the assumption that all new multimedia technologies potentially contain inducing and reinforcing features, much like other forms of addiction that may contribute to addictive tendencies. Actually the term addiction means the high degree of likeness towards a particular thing or subject. So if somebody addicted towards something then he loses control over his own mind and faces difficulties to get rid of the claws of the object (Morse & Flavin 1992). The Multimedia addiction has been dubbed ‘the new cigarette’ and one of the biggest non-drug addictions of the 21st century.
Most of the adolescents spent too much of their time with multimedia technology. According to Marks (1990) Media addictions are a type of behavioural addiction in which there is no chemical substance involved. Multimedia addicted adolescents are very much preoccupied for their multimedia gadgets and can’t stay without them. They often check their internet or mobile for email and social networking sites. They sending unnecessary SMS, playing video games and chatting through social networking sites. Such behaviours were commonly seen in addicted to multimedia. Often these adolescents are unable to separate from these multimedia technologies and feel worried, irritable and desperate when they forget to take them along. They may experience like the mobile phone is ringing or vibrating. Adolescents with poor coping skills, often find it difficult to deal with day to day minor issues and problems, so they engage with mobile or internet to distract themselves from stressful situations. Frequent use of this behaviour is a potential risk factor of multimedia addiction.

Multimedia refers to the types of devices most commonly used for communication and entertainment purpose including: Internet (including social networking sites, online games, online shopping etc), Mobile phone (including phone calls and text messages), Video games and Television (including television shows and movies). So mainly four types of multimedia addiction including in this study: Internet addiction, Mobile phone addiction, Television addiction and video game addiction.

1.5 Internet Addiction:

The origins of the Internet can be traced back to 1969, when the U.S. Department of Defence began funding the U.S. Advanced Research Project
Agency in developing technology for exchanging information through its various networks. However, the Internet as we know it today, using the Transaction Control Protocol/Internet Protocol (TCP/IP), started in 1983. In 1992 the WWW graphics based software arrived and since then it has spread very swiftly (Gattiker, 2001). As a comparatively recent innovation, the emergence of the Internet as an essential communication tool through the existed since the early 1990s, the Internet has quickly become an exciting new concept which brings a special character and convenience to our lives. With the Internet it sometimes appears that anything might be possible. Thus, the number of Internet users has increased rapidly.

The term “Internet addiction” was proposed by Dr. Ivan Goldberg in 1996 for pathological compulsive Internet use, has recently turned out to be a phenomena, which is tried to be defined through various terms such as “net addiction”, “internet addiction”, “online addiction”, “internet addiction disorder”, “pathologic internet use” and “cyber disorder” (Eichenberg & Ott, 1999). In present time most of the youth, adolescents as well as children are internet addict. They spend their most of the precious time on internet for entertainment, shopping, chatting etc. Internet is increasingly having more influence on all aspects of the society as it has become an integral part of our daily lives in the present time.

Internet addiction has been become a global concern to the people and can be classified as a mental and physical health issues. There is even a proposal to include Internet addiction in the next revision of the Diagnostic and Statistical Manual of Mental Disorder. Internet addiction means the over use of Internet to
such extent that our everyday life collapses. At the end it leads to complete breakdown of our personal and social relationship, work and sleep routine as well as our mood and thinking capability. In other words we can say that the over use of Internet creates disturbances in our daily life. The Internet has become an important tool for education, entertainment, communication, information sharing and an essential part of everyday life all over the world and its use increases especially among adolescents. Internet addiction is a very serious problem for adolescents. Easy access and social networking are two of the several aspects of the Internet fostering addictive behaviour.

Internet usage in India is on the rise. The population of India is around 1.2 billion as of 2012, of which the number of Internet users (both urban and rural) is around 205 million. It is estimated to increase to 243 million by June 2014, and India will be the second leading country after China which currently has highest Internet user base of 300 million (Internet and Mobile Association of India, 2013).

Young (1998) has proposed criteria patterned after the DSM-IV-TR criteria for pathological gambling. In employing her criteria, only non-essential Computer/Internet usage (e.g. non-business or non-academic use) is considered. Internet addiction is present when five or more of the eight criteria are present during the past 6 months and mania has been ruled out as a cause:

1- Preoccupation of the Internet.
2- A need for increase time spent online to achieve the same amount of satisfaction.
3- Repeated efforts to curtail Internet use.
4- Feel irritability, depression, or mood liability when Internet use is limited.
5- Staying online longer than anticipated.
6- Putting job or relationship in jeopardy to use Internet.
7- Lying to others about how much time is spent online.
8- Using the Internet as a means of regulating mood.

According to Young, et al. (2000) Internet addiction is a broad term covering a wide variety of behaviours and impulse control problems. They are further breaks ‘Internet addiction’ in to five subtypes and suggest that people typically become addicted to a particular application that acts as a trigger for excessive Internet use.

The five subtypes of Internet addiction are as follows:

1    Cybersex addiction :

This occurs in individuals who typically engaged in viewing, downloading and trading online pornography or are involved in adult fantasy role-play chat rooms.

2    Cyber – relationship addiction :

Addiction to Social networking sites, chat rooms and messaging to the point where virtual online friends become more important than real – life relationship with family and friends.

3    Net Compulsions :

This subtype includes a broad category of behaviours, including online gambling, shopping or stock trading.
4  Information Overload:

The World Wide Web has created a new kind of Compulsive behaviour that involves excessive web surfing and database searches. These individuals spend a disproportionate amount of time searching for, collecting and organizing information.

5  Computer addiction:

Most computers come equipped with pre-programmed games and people become addicted to playing them at the cost of work performance or family obligations.

1.6  Mobile Phone Addiction

Mobile phones came to India in the mid-1990s, when the Indian government liberalized the economy to let western companies and products enter the Indian market. Initially due to high costs, Mobile subscriptions were very few and the service was mainly adopted by business executives and professionals. However, in January 2000, the government introduced a new policy called NTP99, which replaced the high-cost, fixed licensing regime with a lower cost licensing structure leading to a drop of over 90% in cellular tariff rates. The lowering of costs, which encouraged price wars among the cellular operators, and their promotion as fashionable technology has led to a massive boom in the Mobile phone subscription levels, especially among the younger population (Fraunholz & Unnithan, 2006). A couple of years ago, Motorola, a well-known cell phone company, launched its “Moto Yuva” range of cell phones. The term “Moto Yuva” stands for “Motorola for youth”. “yuva” means youth in Hindi (Mukherjee, September 24, 2008)
According to **Telecom Regulatory Authority of India**, there are about 929.37 million mobile phone subscribers in India make it the world’s second – largest cell phone using developing country in the month of May, 2012 (TRAI, 2012). Mobile phone is a very important communication tool and became the integral part of everybody’s life. The Mobile phone is a life line for young generation in present time.

Terms such as "Mobile phone addiction" (Park 2005; Ahmed et al., 2011; Szpakow, et al., 2011) "Smartphone addiction" (Casey 2012; Lee et al., 2013) "problematic Mobile phone use" (Billieux et al., 2008; Takao et al., 2009), "Mobile phone dependence" (Satoko, et al., 2009; Choliz 2012), "compulsive Mobile phone use" (Matthews et al., 2009) and "Mobile phone overuse" (Perry and Lee 2007), have all been used to describe more or less the same phenomenon, that is, individuals engrossed in their Smartphone use to the extent that they neglect other areas of life. The most commonly used terms to describe this kind of addiction are "Mobile phone addiction" and, recently, "Smartphone addiction".

While Mobile phones are extremely attractive as a tool for communication and interpersonal interaction, there has been an increased risk in its problematic use. Mobile phone is also a serious problem for an individual’s social life and work, although this type of addiction is not recognized as a diagnostic category at this time in DSM-IV. Psychiatrists consider Mobile phone addiction to be an Obsessive-Compulsive disorder. Addictive people tend to feel depressed, lost and isolated without a Mobile phone. Their work and lives are sometimes disturbed by frequent calls, text messaging, web browsing and online
chats. Generally people get disturbing when their phone ringing and they are doing work. There is a wide variety of new Mobile phone functions; including camera, Internet, music player, FM Radio, gaming features etc.

**Signs of Mobile Addiction:**

(1) People spend their maximum time of their Mobile phone.

(2) People having alarms telling them when to do everything in their life.

(3) They install different apps in mobile.

(4) When people meet other people they talk about mobile

(5) People use it in bathroom also.

(6) Experience anxiety when phone is misplaced.

(7) Feel uncomfortable if more than two hours pass without checking phone for messages.

(8) Experience extreme emotions when a cell phone connection is lost.

(9) Answer calls and text messages while driving.

(10) The first thing upon waking is check phone for messages.

Mobile phone is a become status symbol for adolescents in now days. They have mobile phones with them all the time and use to them to organize and manage every moment of their lives. Mobile phone has become vital element to the adolescent but it is reason of addiction also. The Mobile addiction is spreading continuously among adolescents. The image of adolescents with their mobile phones glued to their fingertips, texting, listening to music, playing games or watching a video has become almost iconic.
1.7 Television Addiction:

Television addiction was first introduced in the 20th century and later gained widespread acceptance among parents, teachers and researchers due to its negative impact on its users. It is caused a great change in daily pattern of behaviour. Television is an important tool for most people, young or old, as today most information are delivered to the public via this technology. It can now be assessed easily via cables or satellite, which could provide consumers with every type of information that they need, either for work, leisure, interest and so forth. With the emergent of this media and the production of various programs, television has caught the attention of most people, comparable to other media. Television is the most accessible media to most people, including adolescents and misuse of television by adolescents is very common. Adolescents who are more attached with television means that they have more problems with their family, school and working place.

For the past 15 years, the American Academy of Pediatrics (AAP) has put their concerns about amount of time children spend viewing the television (AAP, 2001). Referring to the AAP guidelines, children older than 2 years old should watch no longer than 1 to 2 hours of quality programming, and children under 2 years old should not have any television viewing, as the first 2 years of life is a critical period for brain development. In addition, no Media should be in the children’s room. It is still not clear why parents could allow Media to be in their children room, with access to various channels and leaving them to watch television by their own. In one year, an average child would spend about 900 hours in his school and nearly 1,023 hours in front of a Television (Govin, 2005).
It is then estimated that at average the television is on for approximately 7 hours a day and when the child graduated from high school, he or she might have watched 15,000 hours of Television (Sparrow, 2007). These figures shows that there are increments in the numbers of hours spent in a child’s life, which illustrates the changes of life-style in the adolescents today which television place a huge influence in their daily activities.

The television is often singled out as an object which is responsible for numerous, negative effects on the public and the reason behind many problems which afflict today’s society. That, however, does not mean we can forget about its merits and educational capabilities and, without a doubt, it cannot take all the blame for the increase in the phenomenon of television addiction in the last few years. Like every instrument of communication, the television can be used for good or bad and it can become an object which people depend on when looking to satisfy their needs and when, in a society like today’s, there is a crisis in an institution which is solved by delegating the problem to this communication device, which should not be done as it is not designed for this purpose. Television addiction, like many other types of modern addiction, is in fact the product of a meeting between some modern psycho-social factors and certain behavioural factors; the former provide fertile ground on which erratic behaviour can develop and which can degenerate into various forms of addiction, which can occasionally be found in the same person. When people suffer from modern addictions, such as television addiction, other addictions, which are related, can often be seen; for instance, internet or shopping addictions may cause television addicts to buy the products advertised on the television.
Main signs of television addiction:

(1) Watching television for more than 2-3 hours per day.
(2) Get excited when watching their favorite programs.
(3) Reduction in leisure activities so as to watch television.
(4) Ignoring people when watching television and not tolerating interruptions or comments from others.
(5) Confusion between reality and televised reality and considering what was said on television to be reality and superior to everything else (addicts may even use of sentences from a television program in real conversations)

1.8 Video game Addiction

Video games are extremely popular among children’s, adolescents and adults, but adolescents at the beginning of the 21st century are growing up a gaming generation. They are no longer aware that a world without the Videogames ever existed. Video games are invariably played on a video game system or platform. Traditionally, systems for home use are divided into personal computer (PC) and Video game consoles. A Video game consoles is a small box that accepts games in the form of standardized cartridges, DVDs, Blu-ray discs, or direct internet downloads.

Video game addiction as an Excessive and compulsive use of computer or video games that results in social and/or emotional problems; despite these Problems, the gamer is unable to control this excessive use (Lemmens et
Media and the research literature both are frequently depict new cases of people playing video games to the point that they supposedly have severe detrimental effects on their daily functioning, and in the worst case scenarios may lead to school dropout, loss of job, families and friends, and even death (Allison et al., 2006; Chappell et al., 2006; Skaric et al., 2009; Salmon, 2010).

Most Popular Video games among adolescents:

Among in this age group Strategy games, Action games and Role-playing games were most popular. In a strategy game, the gamer usually leads a faction in warfare. The target is to reduce enemy forces with the ultimate goal being victory. To achieve this, the gamer must exercise superior strategy and tactics to the opponent. When playing offline, the gamer fights the computer or game console, whereas online, different gamers may fight each other. An action game is typically based on shooting or fighting. In shooter games, the gamer usually controls one character and engages in up-close battle with weapons. This genre of games challenge the gamers coordination and reaction-time, as opposed to strategy games which are more based on logic, overview and planning (although reaction-time is also essential to some strategy games).

The action game always provides some goal of the battle, such as capturing the other team’s flag or being the last man standing, and so on. Like in strategy games, the gamer fights the computer or game console when offline. When online, the gamers may fight each other, either individually or in teams.
Both in strategy games and action games, the offline modes usually follow a story line, whereas the online modes tend to be open-ended.

In role-playing games the gamer usually controls one character or a small group of characters, with whom they explore a virtual world. The most popular of these games take place online with thousands of gamers and are referred to as Massively Multiplayer Online Role-Playing Games (MMORPGs).

In the field of research, MMORPGs are commonly the games in question when discussing video game addiction. It has been found that these games are played for longer periods of time than offline games (Ng & Wiemer-Hastings, 2005). The social aspects of the MMORPGs combined with the fact that they are never-ending and run in real-time, are considered factors contributing to addiction by pressuring gamers to devote themselves to the game (Allison et al., 2006). The increasing demands put on the gamers as they make progress in the game appear to pull some gamers in. Evidently, in some cases this can lead to severe detrimental effects on the gamer’s real life, due to neglect of important real life aspects such as school/work, family, friends, sleep, physical health, and so on. For some, the game seems to become more important to the gamers than their real lives (Chappell et al., 2006).

Sign and Symptoms of Video game Addiction:

The first sign of addiction is that the need to play games gets stronger over time. When a gamer starts playing, one or two hours might be enough but gaming addicts become desensitized to the effect of short gaming sessions. They
have to play for longer periods or with more intensity as their addiction worsens. The second sign that someone has a problem with Video game addiction is that the person becomes irritable, anxious or miserable when he or she is unable to play games. The sign and symptoms of this disorder include the following:

(1) Feelings of restlessness and/or irritability when unable to play
(2) Skipping meals and shower
(3) Lying to friends or family members regarding the amount of time spent playing
(4) Isolation from others in order to spend more time gaming
(5) Significant weight gain or weight loss
(6) Sleep disruptions
(7) Mood changes
(8) Avoiding friends and family members
(9) Poor work performance
(10) Poor academic performance

**Effect of Video game Addiction:**

Media and the research literature both are frequently depict new cases of people playing video games to the point that they supposedly have severe detrimental effects on their daily functioning, and in the worst case scenarios may lead to school dropout, loss of job, families and friends, and even death (Allison et al., 2006; Chappell et al., 2006; Skaric et al., 2009; Salmon, 2010). The notion that playing violent video games causes aggressive behavior has been supported by substantial research evidence. The consistency of the results from experimental, cross-co relational, and longitudinal studies demonstrate a that violent video game play is a causal risk factor for physical aggression. This effect
occurs in short-term and long-term contexts, across gender and culture, and to children and adolescents (Konijn et al., 2007; Gentile et al., 2004; Hopf et al., 2008). Playing video games, both violent and nonviolent ones, tends to produce physiological arousal (Swing et al., 2009). Arousal can be measured in experimental studies using indicators such as heart rate, blood pressure or skin conductance.

1.9 Multimedia addiction and Intervention:

An Intervention is a combination of programme elements or strategies design to produce behaviour changes or improve health status among individuals or an entire population. Intervention comes from the Latin intervenire, meaning “to come between, interrupt”. Intervention may include educational programs, new or stronger policies, and improvements in the environment or a health promotion campaign. Interventions that include multiple strategies are typically the most effective in producing desired and lasting change. Intervention may be implemented in different setting including communities, worksites, schools, health care organizations, faith-based organization or in the home. Interventions implemented in multiple setting and using multiple strategies may be the most effective because of the potential to reach a larger number of people in a variety of ways.

Since Multimedia addiction was first introduced in the research literature and media, many research studies have been undertaken in an attempt to define, explore, investigate and predict addiction and identify possible interventions or treatments for Multimedia addiction. Seven possible interventions have been identified as well as therapeutic approaches such as Cognitive Behavioral
Therapy (CBT), Reality Therapy, and Group Counseling etc for reduce Multimedia addiction.

1.2 Researchable Questions

This study aimed to provide an understanding of Multimedia addiction and its impact on personality of adolescents. Therefore, the following specific research questions were addressed.

- What is the extent of Multimedia Addiction among adolescents?
- Is there any relation between Multimedia addiction and Personality dimension of adolescents?
- Is there any difference between Gender and Multimedia addiction among adolescents?
- Which type of Intervention Module are required to reduce the Multimedia addiction among adolescents?
- Will Intervention module reduce the Multimedia addiction among adolescents?

1.3 Justification/Scope Of The Study:

Looking at the present Scenario it was realized that Multimedia technology is very useful for users to find information, communicate with others, entertainment, study purpose, fills leisure time as well. But if use of multimedia continues without any restriction, then multimedia will become very serious and they affects negatively on adolescents personality. Adolescent’s personality is largely affected by all forms of Multimedia.
In India, there is little hard research of Multimedia addiction rates and the positive and negative impacts of Multimedia use by adolescents, however very little research has been conducted on this societal problem within the Indian context. Similarly, there is very few research with Intervention module of addictive use of Multimedia and very few studies are conducted in the metro cities of India. The present study is sought to bridge these gaps by conducting a research on Impact of Multimedia Addiction on Adolescents Personality and effect of Intervention.

In the light of this study researcher wants to make people aware especially who are involve take care of adolescents such as parents, teachers and counselors. Most of the parents were born in the generation without multimedia technology, their knowledge and skills about this multimedia technology may not be as good as their children who are born in this multimedia technology generation. Learning how to use multimedia technology and its applications for adolescents is just like learning how to read and write. Adolescents are more and more likely to expose to Multimedia technology at an earlier age. Parents are eager to give their children’s video game, smart phone as soon as possible, to nurture them with the best and latest learning modality, hoping they can be winners from the beginning of life. Parents are promoting use of Multimedia technologies without thinking about its bad effects. When the adolescents grow older and are spending much more time in the use of multimedia technology, parents are worrying that this could be harmful to their children. This study will give them baseline information with scientific results about the personality and addicted behaviour of adolescents towards the growing multimedia addiction. Through this study, they may start to
This study can provide information on the symptoms of the Multimedia addiction, impact of Multimedia addiction on adolescent’s personality and also intervention for multimedia addicted adolescents. So in this study is the main thing to start so that this problem can be solve and considering the above facts in mind, the investigation entitled “Impact Of Multimedia Addiction On Adolescents Personality And Effect Of Intervention” was undertaken with the following objectives:

1) To study the extent of multimedia addiction among adolescent.

2) To study the influence of multimedia on personality development of adolescent.

3) To develop need based Intervention module for multimedia addicted adolescent.

4) To apply the developed Intervention among adolescent and ascertain their effects.

1.4 Hypothesis:

In view of the presumed relationship and based on objectives of the study the three null hypotheses were formulated:

Ho1 : There is no significant relation between Multimedia addiction and the adolescent’s personality.

Ho2 : There is no significant difference between Multimedia addicted and non-addicted adolescent’s personality.
**Ho3 :** There is no significant difference in the mean score of pre-condition and post-condition of the adolescents.

### 1.5 Limitations of the study

There are several limitations to this study that may reduce the generalisability of any conclusion reached:

1. **The research examined the Multimedia addiction on adolescent’s personality in a particular area of Gorakhpur (U.P.); it might be difficult to generalize the study’s findings further than the country in which the research was conducted because each society and culture has its own demographic profile and social norms that may influence adolescent’s personality with regard to multimedia use.**

2. **The second limitation was that the adolescent respondents might not have honestly reported their Multimedia use and symptoms of Multimedia addiction and also personality related questionnaire, despite the fact that questionnaire were answered anonymously and that teacher were kept away from the classrooms where information was being collected.**

3. **The third limitations was, there may be other things affected by Multimedia instead of Personality in adolescents, that our study missed and did not consider these things and not included as variables in this study.**

**Delimitations of the study :**

Only those adolescents were selected who were using Multimedia like Internet, Mobile, Television and Videogame.