Chapter 3

REVIEW OF PUBLISHED LITERATURE
3.1 Introduction

A literature review is a body of text that aims to review the critical points of current knowledge including substantive findings as well as theoretical and methodological contributions to a particular topic. Literature reviews are secondary sources, and as such, do not report any new or original experimental work. No study can be undertaken without reviewing and analyzing the literature available related to the field of study. Review of Literature is an important component of research by which multifaceted understanding of the phenomenon becomes the part of researcher’s cognitive personality.

Review of literature on Cyber Crime and Social Networking Sites is to find out what research has already been undertaken in the area of Cyber crime and Social Networking Sites, what type of theoretical explanations have been given about this new technological crime which is spreading very fast all over the globe, what have been the causes behind occurrence of Online crime and what effect it reflects on Indian society. Besides all this, it is also worthwhile to find out what laws and legislations are present to deal with Cyber crime and issues related to Social media. As the subject of Cyber crime and Social Networking Sites is new in the field of Sociology and Criminology, there is a paucity of literature in this area. Not only this, the available literature has many
limitations as the area of Cyber crime and Social Networking is wide and dynamic.

3.2 Classical Thinkers on Technology and Crime

Many prominent classical sociologists have contributed towards the social thought on social order, effects of science and technology and crime in society. It is worthwhile to note their viewpoints before reviewing the current literature on technology and crime. Durkhiem\textsuperscript{1} stressed up on the scientific approach in social thought and viewed a higher rate of crime as inevitable for a modern organic society. He even calls crime as ‘functional’ because it brings all organs of society together to find a common solution. In terms of Marx\textsuperscript{2}, crime arose as a symptom of the contradictions within capitalism. The contemporary society is dominated by Globalized Capitalism which has brought in new forms of crime. Weber\textsuperscript{3} analyzes society as a ‘rational society’ built around logic and efficiency rather than on morality or tradition. A modern society is rational society which has seen the emergence of technological specialization, social change and new forms of crime. These classical thinkers expressed their views on technology, crime and its effects on society with a focus on concerns about the changes resulting from technology. Besides they also felt that advancement of
technology would result in new forms of crime which are now visible in modern society.

3.3 Contemporary Thinkers on Technology, Change and Crime

Merton (1968)\textsuperscript{4} examine ‘anomie’ as a condition that occurs when discrepancies exist between societal goals and the means available for their achievement. This results in a discrepancy between goals and means which produces the various combinations of behaviour in accepting or rejecting the means and goals (Innovation). Even though the rapid growth of technology has manifest functions, however, it has also led to some undesirable consequences like cyber crime. Giddens (1991)\textsuperscript{5} paints a new picture of Modernity by calling it as a ‘Juggernaut Engine’ which goes asunder with no control of humans over it. Both the trust mechanisms (symbolic tokens and expert system) associated with modernity and the distinctive 'risk profile' it produces, always threaten our trust and leads to insecurity. Beck (1992)\textsuperscript{6} labels the contemporary world as both industrial society and risk society. The indiscriminate use of technology has associated risks which are yet not traceable. Due to the complexity of society and technological advancement, new crimes especially cyber crime have grown creating new type of risk for individuals, organizations and for society. Castells (1996)\textsuperscript{7} believes that
technology is instrumental “Technology is neither good nor bad, nor is it neutral, it is a force”. Technology has changed the societal structure from industrial to network. Network Society is based on nodes of interaction among people all around the globe. However, it has also brought ‘Organised global crime’. It is very easy for criminals to plan and conduct crimes with the help of technology. Wall (2001)\(^8\) discusses about the burst of virtual bubble i.e. the new technology which generates great anxiety. According to him internet is a concept that is invented by the media. Therefore, it is the job of criminologist to understand the behaviour that it describes and to assist the understanding of others. The internet influences the criminal and crime in three main ways; first the Internet is a vehicle for communication which sustains existing patterns of harmful activity such as drug trafficking, second, the Internet has created a transnational environment that provides new opportunities for criminals, and third, is the nature of the virtual environment particularly with regard to the way that it distanciates time and space. Wall explains the negative use of technology but he has not given any probable solutions which need to be taken by policy makers to curb it.

Baudrillard (2003)\(^9\) opines the post-modern world as characterized by simulations and hyper reality. The era of simulations is an era of information and signs governed by models, codes, and cybernetics.
Present generation believes more in virtual world and gives less importance to real world, because they are infatuated by hyper reality. Jameson’s (2003) concepts of superficiality and lack of depth are relevant to cyberspace. Emergence of social networking sites coincide with superficiality as the people who are connected through these networks lack the basic connection and sentiments which are needed in face to face communication. The ideas of these sociologists have laid the framework within which the modern day society (technology and related crimes) can be interpreted and understood. The platform provided by these theorists will become a base for the review of published research work for the current study.

Majid (2006) provides a sound and concise view of cyber crime. New Crimes appear at a rapid pace and old crimes disappear or change their form and what counts as a crime varies across societies. As Majid Yar highlights, ‘academic criminology has been slow to reorient itself to developments arising in the cyber world’. He has discussed at length the emergence and growth of the Internet and the role it plays in a new range of everyday activities, the extent of cyber criminal activities and what are the problems associated with measuring them. Numerous examples on how cybercrime has posed negative consequence on society are quoted by the author. Various Forms of cybercrime as Hacking,
Pornography, Piracy, and Online hate speech, e-frauds, Identity theft etc are discussed at large. One of the important points raised by the author is that crime and deviance cannot always be strictly separated in criminological inquiry. The dynamics in which the boundaries between criminal and deviant are socially negotiated are a recurrent feature of contemporary developments seen around due to the Internet. Cybercrime has posed new challenges for policing and criminal justice as it is an inherently de-territorialized phenomenon. Besides this, new problems arise because of constraints of limited resources and insufficient expertise. An important question which is unanswered by the author is whether information and communications technologies are crime enablers or crime enhancers. Not only this some of the most recent high tech crimes are not included by Yar; risks by individuals and organized groups posed to critical infrastructure that may be due to political or religious motivations and the risks associated with the new payment system. As we are increasingly moving ahead in the technical world, we need to address these upcoming issues.

**Cavanagh (2007)**\(^\text{12}\) examines the role of the Internet in modern sociology. She explains the rise of the network metaphor in society. In sociological terms, the author went back in explaining community as given by various sociologists. She explains online communities in
contemporary society which have given rise to new forms of social behaviour and interaction. Cyber cultural theories around Identity formation have been examined by the author. In his views ‘Sociology of Technology’ is the need of an hour. Even Marx has talked about Technological Determinism. But for new theorists the process of technological development is driven not by the interests of the ruling class but by their response to the resistance of those they seek to oppress. Cavangah attempts to use various theories to explain the sociological relevance of technology. The author analyzes technological issues whose impact upon societies is substantial. She claims ‘Studies of the Internet often, become obsolete between writing and publication’. This is quite applicable because the pace of change in both the technology and the uses that social actors find in it are dynamic. Even though Cavanagh has discussed theories in detail but has not touched upon how technology can be abused or what type of social disorganization it can bring in contemporary society.

Jaishankar (2011)\textsuperscript{13} signifies the fact that criminal justice still lacks suitable and updated knowledge concerning the modern cyber crime reality. His ‘Space Transition Theory’ is important to understand cyber crime. Anonymity has further become more criminogenic in virtual space. It has aggravated Deviance and Criminal Subculture in
Cyberspace. Social networking victimization especially adolescent victimization has been associated with Routine Activity Theory and Lifestyle Theory. Teenagers explore new technologies because of the freedom these technologies bring, but it also makes them vulnerable to online crime. Although cyber bullying is discussed but within a psychological framework and its social implications are not stated.

### 3.4 Typology of Cyber crime

**Hawthorne and Klein (1999)**\(^{14}\) explains the increasing use of women in creating a cyber culture which depict females as cyber barbies and cyber sex objects. The authors have discussed Pornography in detail which is a social trauma. Pornography as one of the first successful e-commerce product has been the foremost crime on the internet. The authors correlate feminism with cyber realm. But other types of cyber crime have not been taken into account by Klien and Hawthrone. They have just focused on women’s use in cyber porn and other issues related to cyber crime specially the misuse of social networking sites is not discussed.

**Philip (2001)**\(^{15}\) warns the use of pornography on the Internet. According to him, ‘Why is so much attention focused on quite innocuous forms of adult material, while something as pernicious as child pornography circulates with such relative case?’ It is media, politicians and law
agencies who have over responded to online obscenity but have failed to grasp the more serious form of electronic market on child porn. Although other forms of deviant acts have their reputable defenders who assert that these activities should not be severely penalized, but for child pornography, there is no such tolerance. Feminists have long argued that “Pornography is the theory; rape is the practice; a corollary declares that” child pornography is the theory, molestation is the practice. The writer highlights on the modern history of child porn, which dates from the general relaxation of censorship standards in the 1960s. The writer has examined various laws related to pornography and also questioned about democratizing porn. He argues that the policies outlined are open to debate because other approaches would not have any real effect and might do more harm than good. Even the traditional strategies for deterrence had little impact in this area. The author had little insight on how to eliminate child porn. He left it at the mercy of society. The role of society in the elimination of child porn is very important, but author has not touched upon this issue. The technical and legal aspects have been given more importance as compared to social aspects.

Jewkes (2006) analyzes typologies of cyber crime in detail. He discusses on-line victimization, the social construction and policy implications of Internet crime, the dichotomous nature of cyberspace,
the impenetrable anonymity of the virtual universe, and the challenges of regulation and control and also provide suggestions on how these crimes can be dealt with. Due to dynamic nature of the Internet crime, the quoted examples and information is not very relevant. It also falls short on social networking sites and virtual reality. A large online population of Asian countries integrated with the unique type of environment, which has given rise to new type of Internet crimes, has not been addressed by Jewkes because of his western orientation.

Clarke (2009)\textsuperscript{17} draws attention on Cyber terrorism. He warns that computer can be used for ‘Net War’ as malicious software can be installed in it even without approval and the users might not know that it is being used against their own country. Cyber terrorism has new scope to reach into cyberspace from physical dimension. It leads to destruction of giant electrical generators, derailing of trains, burning of high power transmission lines, explosion of gas pipelines, crash of aircrafts, and malfunctioning of weapons. Cyber war has the means to launch attack in any part of the world with electronic means. Large scale attack can be easily conducted through internet by abuse of technology. The author surely warns us but he is unable to provide with probable solution to cyber attacks.
Higgins (2010)\textsuperscript{18} observes the use of computers and the change in technology due to new advancements. He also cautions the security of internet users and relates this to emergence of cyber crime. He also examines Cyber pornography which is very much rampant. The author also develops a contextual framework on flow of information on a global level. He discusses hacking as based on technical virtuosity. The advent of computer networking and the popularity of the internet have also given rise to excessive hacking. Not only this, Privacy is at stake because of online transactions are dealt in detail. Higgins suggests that a future effort to safeguard information that is frequently stored in electronic media needs to be analyzed. The knowledge on abuse of technology is very much essential to combat the recent surge in internet related offenses.

Holt (2011)\textsuperscript{19} emphasizes on four major types of cyber crimes, namely cyber trespass, cyber deception/theft, cyber porn and obscenity and cyber violence. He has discussed various criminological theories in the light of changing trends and patterns of crime. He examines hacking and its various forms. He also analyzed child porn in the light of recent legal developments. In addition, he evaluates the law which addresses cyber bullying and cyber stalking. In his views more researches are needed for
creating ‘awareness’ among the common people who Google for anything and almost everything.

3.5 Effects of Technology and Cyber crime on Society

Kraut (1998)\(^{20}\) in one of his earliest studies conducted on the use of the Internet evaluates socio-psychological effect of Internet. It was noted that the more use of Internet is associated with a decline in communication among family members, decline in social association and increase in aggression and depression. Many scholars argue that it is networking which makes people isolated and drift them apart from real life genuine social interaction, while others argue that internet leads to better social association. Kraut compares Internet with the television. Both are primarily used for the purpose of entertainment and information. Even though his study indicates that the use of computer and the internet leads to development of new skills and confidence but when people use these excessively to learn new games, for networking and for seeking new information, it consumes excessive time and leads to reduction in leisure time with the family and sometimes leads to social isolation. The findings of his study highlight that teenagers use the Internet for more hours as compared to adults. This study was conducted in America in 1998. According to Kraut ‘Greater use of Net shows a
decline in social involvement’. Online friendships have more limitations as compared to face-to-face friendships. Finally, he discusses the need of policy and technology interventions at individual and social level for better interpersonal communication.

**Mckenna and Bargh (2000)** believe that people are increasingly using Internet because it is a fast and an easy way to maintain contacts with those who are far away. However, people have apprehensions on the changes which internet will bring. It may be because of the fear of the unknown that has been a feature of most of the previous technological breakthroughs like television. A Mckenna and Bargh point out that interaction on the Internet is different from that in real life. For this they analyze four reasons; First, the possibility of anonymity on the Internet, second, physical distance is not a limitation at all on the Internet, third, physical appearance and visual cues are not important and, fourth, time has no relevance on the Internet. The negative effect of anonymous communication through the internet is a cause of concern. Researchers have found that people behave more openly on the Internet than in face to face communication. The hate groups and racists use anonymity over the Internet to harass minority groups by sending threatening e-mails and hateful messages. Looking at the other side it is the internet which provides the opportunity to engage in new roles and identity construction.
than is possible in the non-virtual environment. Introverts turn to internet as a way through which social connections are enhanced. However, the authors have not discussed the negative effects of internet in real life.

Heuven and Botterman (2003)\(^\text{22}\) opine that e-frauds and identity thefts have caused financial loss on a global level and is a challenge for the nation’s infrastructure and security. Further, cyber criminals are using networks to commit traditional crimes online such as child pornography and pirated software. Legislation and effective enforcement is needed to counter attack viruses, hackers and terrorists. However, the authors have not discussed the effects of cyber crime on society. They have limited themselves on technical issues.

Brenner (2010)\(^\text{23}\) highlights the fact that common man has a limited knowledge about the crimes which occur in cyberspace. Online crimes nowadays have an impact on the lives of individuals and on society as a whole. Cyber crime as Brenner explains is not a new form of crime. The information that we post online makes us vulnerable to cybercrime. Brenner discusses hackers as ‘computer whizzes’ who attack websites for online extortion. The crucial point is that a lack of sufficient number of law enforcement and security experts in the field of cyber crime makes us more vulnerable to cyber attacks. However, the techniques which are deployed to prevent computer intrusions are far behind the
techniques used by cyber criminals. The author criticizes law enforcement agencies while he himself has not analyzed as how technology can be used effectively to control cyber crime.

Furnell (2002)\textsuperscript{24} examines the development of information society and the history of Internet. He talks about various tools and skills that are used in hacking. He characterizes malware viruses and malware incidents. Not only this, Furnell observes social, political and commercial impacts of hacking. He describes hackers as the members of an emerging subculture in modern society. He also identifies the causes of the development of negative stereotypes of hackers. But Furnell has not discussed the means and measures to control hacking.

Arquilla (2001)\textsuperscript{25} views ‘Net war’ as a term that is derived from the effects of Information revolution. The author evaluates organized terrorist groups who are using Information Technology, particularly in the middle east countries. He also suggests a Counterterrorism policy. Network oriented terrorists also use information technology for making disruptive attacks. It includes hacking computer system through e-bombs and spamming to deface web sites. Pakistan’s Lashkar-e-Taiba claimed to attack Indian military websites in early 2000. Thus Technological Revolution has ushered an era of Internet Activism. The author emphasizes on counter net war. The rise of net war and its early effects
on society implies a greater need for governments to come together and work together against ‘Net war’. Even though he talks about controlling net war, he could not suggest ways to counter attack the terrorist or cyber criminals. He also limits his study to Middle East countries.

Rege’s (2009) paints a different picture of the internet which offers an alternative venue for romantic endeavors. According to him there are four factors, which make online dating attractive; First of all, people do not have to leave their homes or workplaces to date, second there is no fear due to the anonymity on the internet which allows individuals to participate privately in dating, third, people experience new forms of online dating such as live chats, instant messaging, Flirtatious emoticons, winks, nudges etc, and fourth, it serves as perfect match because people can choose someone of their interest. Online dating sector has proliferated since 1990s and it has fourth highest earning in internet industry after online gambling, digital music and video games. However, this successful industry is not left apart from cyber crimes. This article explains in detail Romance Scams on the Internet which not only results in emotional damage but also cost loss of millions of dollars each year. Russian and Nigerian scammers are famous in this as they created fake identities on various social networking websites and lured the victims. Victims experience a range of negative emotions such as
anger, resentment, fear, depression etc. He concludes with a note that online romance scams are here to stay for long in society. So, it becomes necessary to devise means to control them.

**Kluver (2003)** addresses the issue that the ‘Net’ empower communities and individuals to revise their identity again and again. Various functions of the net are discussed by him in detail. He views that apart from the technical functions of the net, even social and psychological functions are fulfilled. The countries in Asia are increasingly using the Internet for economic reasons. This has given rise to unanticipated consequences such as growing inequality between social classes (i.e. digital divide) and nations. Some people have access to digital resources while others are cut off from this. The people who have access to Internet and latest technologies are considered as superior by those who do not have access to technology. According to International Labor organization there is a widening digital divide between countries and even within countries. Another point raised by the author is about ‘Monitoring’ the Internet. Although constant monitoring is done by Electronic Privacy Information center, Privacy International or The Global Internet Policy Initiative, yet it is debated that social networking sites should not be monitored. However, specific reference to some of the countries such as India is not mentioned. As Internet
subscribers are constantly increasing in the Indian subcontinent, therefore a new form of culture and patterns have emerged in Indian society. The author has not taken into account the effects of cyber space.

3.6 Social Networking and Adolescents

Ahn (2011) emphasizes on youth participation on social networking sites. He is keen to capture the youth and their use of technology to develop relationships, interact with friends and learn new skills. Ahn questions on various key issues-Does adolescent participation in Social networking sites exposes them to online harm or help them develop relationships? Does excessive use of Social networking sites affects student learning or academic achievement? He points out that instead of talking about ‘technological determinism’, now the need is to talk about ‘Social Informatics’ because social forces along with cultural norms and behavioral practices influence how one ultimately uses the technology. According to him, ‘Warranting theory’ is based on the principle that human beings judge others on the basis of profiles, i.e. on Social networking sites we are judged by the company we keep. In addition social networking site provides a platform to teenagers to develop personal as well as social identities. He mentions about the digital divide which is a vital component of present society. If a student is not allowed to use new technology and participate in online communication; he
won’t be able to develop technical literacy which will create digital divide in the long run. He further says that the use of social networking site does not affect academic grades of students but on the contrary, it helps them to develop new perceptions during the learning process. It helps youth in learning and practicing new skills which are not available offline.

In an another important work, Ahn (2012) presents a study that explore adolescents use of social networking sites and their experience on bridging and bonding social capital. ‘Social Grooming’ is an online setting is quite different from social grooming in an offline setting. Online members disclose information about themselves on the profiles. Self disclosure and networked communication build a natural relationship. It is consistently found in many researches that social networking sites are related to higher social capital. The author has examined a potential positive outcome between adolescents and use of social networking site. Nowadays a significant portion of teenage life is influenced by Social networking sites. These concerns are particularly heightened in the case of children and adolescents. This article provides exploratory evidence that participation in various online communities has differential relationships with social capital. Activities and experiences on various social networking sites enhance Social-
information-seeking behaviour. This article suggests having more positive effects of social networking sites than negative ones. The author has not seen any adverse effects of these sites, because he focuses on positive relationship between use of social networking sites and social capital.

The authors Das and Sahoo (2011)\textsuperscript{30} evaluate social networking sites and believe that private and public life in the age of social networking cannot be demarcated. A person becomes helpless to control the distribution of personal data, image or video once it is posted on a website. Even though, people set privacy level but still it is being shared with an unknown web administrator. Using the information available on Facebook profile one can easily determine the physical location of a person. Social networking sites are becoming a privacy threat to an individual. The authors also highlight the biological impact as people are immersed in a virtual world of relationships. Another disadvantage of social networking site is that the people who spent a lot of time chatting with friends and browsing profiles divert their mind from other primary work, and it becomes a habit for them to visit their profile several times a day. This problem has become much acute in developed countries and in extreme cases the employees are even sacked. The authors also point out that a new type of Internet addiction has emerged called as
‘Facebook Addiction Disorder’ in which people become addicts of the internet. Cyber criminals get help from social networking sites. Victims can be easily lured on social networking sites by pedophiles. The actual identity of anyone in cyberspace cannot be identified and the criminals take advantage of this. Cyber crimes through social networking sites include posting objectionable content on users’ profile, creating fake profiles to defame a person and getting access to someone’s profile by hacking. Social networking sites have the power to destroy relationships and can make life miserable. The authors have not given any means and measures on how to be safe online.

He’tu and Morselli (2011) believe that with the popularity of social networking sites, street gang subculture has emerged online. Internet has emerged as a key outlet for such gangs. But authors emphasize the fact that street gangs do not proactively use the Internet to recruit anyone into a gang. However, social networking sites have created a way in which all those who share common values underlying the street gang lifestyle come together. These groups also interact with a wide number of people which is not possible through physical interactions. New type of illegal activities is also done through social networking sites. The authors emphasize that literature on social networking sites and criminal organizations is growing steadily. The grave problem of online crime is
that with the growth and change in social networking sites, the picture of online organized crime will change every year.

Mikami (2010) explores the developmental context of social communication by emphasizing on the fact that adolescent period is a time when peer interaction has the greatest impact on individual, social and behavioural functioning. The quality and quantity of peer interaction increases dramatically during this time. Now-a-days, significant portion of the peer interaction occurs online for many adolescents. The author provides two arguments on online interaction; first argument emphasizes that online interactions are of poor quality than offline interaction while the second argument says that the internet represents a new medium for youth. He states that Internet-based interactions result in poor quality of relations than do face to face interactions because nonverbal cues and body language are absent online. He further argues that the use of internet contributes to poor adjustment because online social interaction does not substitute for intimate face to face relationship. Another viewpoint indicates the characteristic of the individual’s face to face relationship also plays a vital role in an online medium. He opines that adolescents with strong positive face-to-face relationships may be those who frequently use internet for social communication as an additional venue to interact. They are extroverts with less social anxiety and more
sociable in face to face interactions. The Demographic Moderators report gender equivalence on the use of internet. This study is contrary to some previous studies that suggest low correspondence between online and offline relationships and which asserts that maladjusted youth are drawn to the Internet more in comparison to well adjusted youth of society. His finding was that the balanced youth (both in early and late adolescence) were those who use online social communication. This study neglects the negative effect of social networking sites and focuses on its positive aspects only.

Welsh (2011) calls today’s generation “digital natives” or the “i-Generation”, A set of studies reveal the psychological and sociological effects of constant networking. Even though studies reveal some of the positive aspects of Facebook such as a shy kid who gets a good experience by building online relationships, but negative traits like narcissism, lack of empathy, increase in aggression and mental illnesses like schizophrenia and depression are also reported due to excessive use of social networking sites. It is observed that online social networking distract adolescents from studies. It results in poor academic performance. Adolescents who are dependent on technology are poor in interpersonal skills. Not only this, but they are unaware that even after removal of photos or information posted, somewhere someone might
have saved it online/offline. Welsh warns the digital generation to use online sites with precaution. However, he did not analyze the causes behind the lack of concern on privacy issues by adolescents.

### 3.7 Issues on Privacy and Safety

Koh (2006) is critical about online strangers and highlights ‘The Misconception’ that parents have in their minds about children’s susceptibility to online dangers. According to him people believe that problems due to online strangers only happen once in a blue moon because people do not read about it every day in the newspaper. The fact is that children and families who are victims generally do not discuss their personal and painful experiences in society. Adults have a difficult time with the use of Internet because it is a new technology and online crimes magnify the risks associated with the use of technology. Cyberspace is a place, which does not discriminate against race, colour, religion, socio-economic status or gender. Every child online is at some risk. The author suggests that most effective way to combat the risk is through parental involvement. Koh also highlights the fact that Cyber bullying results in consequences such as; children to change schools, drop out of schools, being expelled, charged in civil suits and most important committing suicide. The children who are constantly bullied
do not report it because they feel that if they report the incident, the bully may harass them offline or a parent's reaction might be to remove internet privileges. The author suggests that children need to be taught online manners, just as they are taught everyday manners. He also advises parents to install a “Monitoring device” on the computer. The use of such software is viewed as a way to help adolescents who are tempted through various online means. The author also mentions about privacy issues that need to be taken care of; Cookies, Phishing (Identity Theft), online shopping, frauds and scams etc. He believes in ‘Netiquette’ i.e. the etiquette for the Internet, which means following ethical behaviour while online. People need to follow some guidelines on the net and also teach children how to protect themselves from various forms of online risks. Even though author concerns about children who surf online but he fails on account of providing suitable guidelines which need to be followed by online population.

The article by Tynes (2007) provides a valuable insight to parents especially who prohibit their adolescents to use social networking sites and other online spaces where predators can lurk. The author gave the example of internationally recognized Internet expert Donna Rice Hughes, who recently launched the National Internet Safety Awareness and Parental Empowerment Program in collaboration with the U.S.
Department of Justice. He suggests that parents should monitor teen online behaviour. Some parents are so much concerned that they force their children to avoid virtual world. But this is not good for adolescents and youth because it limits avenues for beneficial, cognitive and psycho-social environment that is available to youth online. For example, adolescents often ask their online friends for help in homework and assignments and seek advice on various courses they should pursue. For this they take help of an extended online peer group. An important mention is made about online games which help adolescents to develop cognitive skills which help in development of reasoning and mathematical solutions. Moreover, cross cultural and inter-racial interaction also develops online. Different cultural backgrounds are discussed across social and ethnic boundaries. It helps in the development of new perspective in adolescents. The author finally advises parents to increase awareness and technological knowledge. Parents should maintain open dialogue with their teens and help them to protect their privacy online. Even though author has given valuable insights and provides a balanced view of social networking sites, but he has underestimated various types of cyber crimes, which are rapidly increasing on social networking sites. It is also true that adolescents not only learn and seek latest information online but they also learn new and abusive language on these sites.
Chandra (2013)\textsuperscript{36} evaluates the problem of children’s vulnerability to cyber crime through social networking sites which has become a favourite pastime among them. Cyber bullying and Stalking are a cause of concern for parents. Dr. Jitendra Nagpal, senior consultant, In-charge of Institute of Mental health, Moolchand Medicity said, “Around 60 to 70 percent cases of behavioural problems in children are associated with misuse of virtual space. Parents should talk with their kids and give them time instead of leaving them in the world of computer.” The article has caused turmoil in a parent’s mind who otherwise feels proud of their much technical savvy kids. It is a time when parents should guide their teenage wards about risks in the form of cyber crimes through Social networking sites.

The article ‘Social Networking Sites raging craze among teens’ by Mishra (2013)\textsuperscript{37} points out the rapid growth and popularity of social networking sites such as Facebook and Orkut in society. As information is easily accessible on these social networking sites, students rely on these sites blindfold. It reduces the learning and research capabilities of students. The adolescents are eager to join these sites in spite of proposed age limit, otherwise they are termed as old fashioned and outdated. These sites have become a medium of fashion symbol as teens upload their latest photographs on these and expect to receive comment.
Moreover, psychiatrists say that the teens who involve in many activities on social networking sites while studying, results in less attention, which eventually causes poor academic performance. Dr. B.P. Sinha, a Psychiatrist said, “Children below 13 years of age are not mature enough to use these sites and hence become a computer addict, which reduces their academic performance and concentration as well. Teens who constantly use these social websites may also become more prone to mental ailments like depression and obsession”. This article highlights the negative effects of social networking sites on teenagers who are excessively engaged in these without realizing how it will affect their academic, psychological and health aspects.

3.7 Laws and Legislations on Cyber crime

Duggal((2009)\textsuperscript{38} a prominent Indian Advocate in Supreme Court and Cyber expert, provides a comprehensive overview of the cyber law scenario in India. He recommends the upgradation of the current cyber law acts, and contextualizes these developments with respect to actual reported cases of cyber law in India. The author calls for more training and technical expertise of police officers on the intricacies of cyber crime; he gave an instance of police officers carrying away computer monitors during a raid in Mumbai, thinking they were the actual
computers. However he has not touched social aspect of cyber crime and limits his vision on legal issues surrounding cyber crime in India.

**Vadhera (2012)** feels that social networking sites have become a melting pot of opinions and ideas which targets government, politicians etc. It is used sometimes to spread communal hatred, disharmony and dissatisfaction towards the government. In spite of the Indian government’s insistence on networking giants to remove the objectionable material from the net, they did not respond to the repeated requests to block the inflammatory contents which “offend Indian sensibilities”. This created tension between government and social media companies. In December 2011, a journalist lodged a private criminal complaint against 21 networking sites, in whose support he submitted the materials which had derogatory articles pertaining to various Gods. In January 2012, Indian Court warned these sites that access to their websites will be blocked if they fail to remove objectionable content from their pages. The article gives an insight on how the fate of various social networking sites in India is changing and whether it will curb most cherished freedoms.

**3.8 CONCLUSION**

From the above review of literature, it is evident that the role of technology is neither good nor bad, it is neutral. It is used as a force to
generate energy in society. Nevertheless, cyber crime is the product of technological development. Social networking has become so predominant in our lives because we all are living in “Network Society”. We are in touch with the world constantly. Although, a massive literature has been generated on Cyber crime and Social networking sites, still ambiguity persists on the impact of technology and social networking sites on society because still the effect is in the infancy stage and much needs to be done. Indian society has a dearth of relevant literature on cyber crime and social networking sites. It is also noted that very few studies have been conducted and reviewed on adolescents’ use of social networking sites in Indian context. The studies which are conducted on the effects of these sites on adolescents provide a mixed stand. The following chapter ‘Research Strategies’ explains various objectives, tools and techniques used in the study conducted on adolescents in Jaipur city.
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