

# An Overview of Cyber-Crime: The need for research and policies of cyber-safety and security in Mizoram.

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**Abstract:** The Internet has dramatically changed the way people interact and information has become more available. The development of information technology has made a tremendous contribution to the world but it also created a space for more criminal activities known as “Cyber Crime”. This paper reviewed the literature on the growth of Cyber-crime and views the context of Mizoram and Cyber-crime related and found out the need for more in-depth research due to the lack of resources available on Mizoram scenario on the internet, users and cyber-crime and the need for policies of cyber safety and security.

**Index terms:** *Cyber-crime, Mizoram, Internet, Policy, Cyber-safety*

## History of the Internet

Internet is said to be the product of the Cold War (Baran, 2004) Internet that was only used among a small group of people is not only used for gathering information such as search engines but is also used extensively for sharing information through email and others, providing communication through online platforms, selling and buying goods online and for interaction and for socializing. At first, the internet was not meant to be user-friendly and was only restricted to the sharing of scientific and research information among a community of experts. (Kasturi & Vardhan, 2017) The Americans were prepared with bomb shelters and stocking of food for the possible nuclear attack in the height of the Cold War, but the government at that time acknowledged that there could be a massive problem in communication if war takes place, knowing the traditional technologies would not be enough. The government needed a new strategy for communication and in the 1960s a group of people achieved the idea of a computer-based communication system which resulted with the internet. (Kasturi & Vardhan, 2017)

Another version of the origin of the Internet was as early as 1956, when a devotee of Marshall Mc Luhan, Joseph C.R Licklider foresaw the linking of computers to create citizens, which thrust experts to pursue the vision which led to the development of the internet. (Baran, 2004)

When the Soviet Union launched Sputnik in 1957, Advanced Research Projects Agency (ARPA) which later became the Defense Advanced Project Agency (DARPA) in 1972, immediately funded research related to technological development among Universities and later become interested in a computer that can be used for communication and begin funding projects related to it. (Baran, 2004) As mentioned before, the idea to a developed computer that could communicate with each other without a central system was achieved and was given much interest which results to a determination of research that began on January 2, 1969. (Kasturi & Vardhan, 2017)

With different achievement over the years, the primary concept behind networking the Internet Control Protocol called Network Control Protocol soon came into development. (Kasturi & Vardhan, 2017) The University of California, Santa Barbara and the University of Utah, went online with switching network called ARPANET in 1969 using Honeywell Computers at Stanford University, UCLA which became operational in one year. (Baran, 2004) And in 1972, ARPANET introduced the network ability to the public and since then the development of network has been growing quickly and it was realized that this new communication network was much larger than they could imagine. (Kasturi & Vardhan, 2017)

And many developments have been growing ever since, with Ray Tomlinson creation on email program in 1972, the word “Internet” was coined by Vinton Cerf and Robert Kahn in 1974. In 1979 Steve Bellovin created a bulletin board system called Usenet, also known as network news and IBM also created BIT, and later in 1992, the World Wide Web was released in 1992. (Baran, 2004)

For over a period of time people begin to recognize network of networks like the Internet, and it was assumed that it was Vinton Cerf who is known as the Father of the Internet to be the first one to use the term internet.

## Internet Revolution

The world has witnessed the emergence of the internet in the '90s and there was a great expectation on the effect it would have on different sectors of the society. The 90's view a promising future with countless revolution that closes down many traditional corporations, an arise of new entrepreneurs producing new wealth, availability of computers and networks that help in the performance of school with rising of e-learning and Government would make use of Information and Communication Technology in services and taking actions in accordance with fast feedback they get from public. (Kasturi & Vardhan, 2017)

The internet thus has a great impact all over the world in terms of communication, commerce, and other sectors. According to the internet world statistics, there are about 3.5 billion people who used the internet in 2015 i.e around 40% of the world

population access the internet. It can be seen that the uses increase rapidly as it was just 1% of the population that used the internet in 1995. (Kasturi & Vardhan, 2017) Even though there is no doubt that transformation had taken place when it comes to communication, it is still too early to predict the outcome with the still growing development of technology.

### **An Overview of Cyber-Crime**

The growth and advancement of information technology have made a tremendous contribution to the development of various fields. It has created new opportunities and the paved way in a new world of the internet which give birth to cyber-space (Pandey, 2014) but it also created a space for more criminal activities and because of such criminal misuse of technology that the popular term "Cyber-Crime" came into existence. The term "Cyber-term" is believed to be first proposed by Sussman and Heuston in 1995 (Sarmah, Sarmah, & Baruah, 2017). . There is no single definition of Cybercrime, but the term referred to criminal and illegal activities related to the computer, electronic and electronic networks. According to Merriam-Webster Dictionary (2000) "*Cyber-Crime is a criminal activity (such as fraud, theft, or distribution of child pornography) committed using a computer especially to illegally access, transmit, or manipulate data.*"

Neelamar (2018) mentioned in his book Media Law and Ethics that many of crimes committed are not new but are more traditional where criminals used a new medium to undertake criminal activities such as fraud, theft, blackmail, and others. This may be true but with the development of information technology, the numbers of criminal activities are also increasing where unlike traditional crimes it becomes easier to commit an act of crime in new ways that were not possible before. Criminals may never have to come in direct contact with the victims, and there is no longer need for them to be physically present and then can operate crime from a long distance such as other countries where it is hard to detect them or prosecute them.

In simplest term, Cyber-Crime is categorized in two ways; the first one is a criminal activity in which the computer is the target, where computer is used to target and attack another computer which resulted in criminal activities such as hacking, virus, etc. and the second one is computed as the mean to adopt and used as a weapon to criminal activity in the real-world e.g. Credit Card Fraud, IPR violations, etc. (Cyber Law of India, 2007). But with the increasing activities of crime in Cyberspace, a further classification of Cyber-Crime is categorized in four ways, the first one is Cyber-Crime against an individual which is crime that is committed against an individual by criminals, which include Email spoofing, Defamation, Cheating & Fraud, Cyberstalking, etc. Second is, Cyber-Crime against Organizations is including possession, alteration, deleting and destroying unauthorized of organization data, Cyber terrorism against the Government organization, etc. The third is, Cyber-Crime against Society which includes Pornography, Trafficking, Forgery, Online Gambling. And the fourth one is a Crime against property which includes breaking in and harming of computers, computer system, Intellectual (Copyright, patent, trademark, etc, Property Crimes, Online threatening, etc. (Sarmah, Sarmah, & Baruah, 2017) (Vanathi & Jayaprasanna, 2014). .

### **History and Evolution of Cyber Crime**

The first Cyber Crime was recorded in 1820, a French textile manufacturer Joseph-Marie Jacquard produced the loom, a device which allowed the repetition of series in the weaving of special fabrics. His employees feel threatened to the device, and fear that it could affect their means of livelihood, so they sabotage the device and discourage to produce any new technology. (Vanathi & Jayaprasanna, 2014)

Cyber-crime has evolved over the years with the development of new technology and network system. Many countries over the world are working and planning to prevent and stop cyber-crime, but the attacks continue and the types of attacks keep changing which makes it hard to stop them. The common types of Cyber-crimes that exist in 1997 are viruses that include Morris Code worm and others. In 2004 there was Malicious code, Trojan, Advanced worm and others, and in 2007 crime such as Identifying thief, Phishing started rising and in 2010, DNS Attack, Rise of Botnets, SQL attacks became common. 2013 was about Social Engineering, DOS Attack, BotNets, Malicious Emails, Ransomware attack and presently, Banking Malware, Keylogger, Bitcoin wallet, Phone hijacking, Android hack, Cyberwarfare are the new type of cybercrimes. (Sarmah, Sarmah, & Baruah, 2017)

The study of Cyber-bullying has increased with many research publications over the past few years, while some research claimed that cyberbullying has not increased other have claimed that the rate has increased which led to the attention of media and awareness around the issues. The growth of Information Communication Technology (ICT) has been regarded as the cause of these phenomena. Cyber-bullying shared some similarities with traditional media but is also considered a new problem. Even though young people grow up alongside the emergence of the online world with many benefits, according to Cassidy, they may not be able to handle the problem and issues online. (Cassidy, 2013)

According to Ybbarra and Mitchel (2007) in research among youth in an online survey of 1588, 15% of the youth report unwanted sexual encounter, 33% report online harassment and on online harassment the 9% was specifically on social networking sites. The report also mentions that incident that took place commonly reported on instant messaging (43%), chat rooms (32%), and harassment was more in instant messaging (55%) than through social networking sites (27% ). (Ybarra & J. Mitchell, 2007)

### **Cyber Crime and Mizoram**

When Internet service was provided and cyber cafés started opening, the internet was used for mostly email and chatting. Before 1995 internet service provided to individuals or households with the availability of cyber café have also risen as a business by the year 2000. (Lalfakzuala, 2008) Because of the internet, the public can now easily access the internet; anyone can access

information faster and easier. Mobile phones entered Mizoram in 2004, and according to an economic survey in 2011 in Mizoram, the usage of mobile phones increased rapidly with 5.5 lakhs in February 2010 to 6 lakhs in February 2011 with a total population of around 10 lakhs. With the increased use of mobile phones, the use of social media in Mizoram has also been increasing over the years with easy access and availability provided by mobile phones. (Lalfakzuala, 2008)

Mizoram has become connected with Cyber World where bank accounts and personal information are easily linked. The mobile phone provides easy accessibility and social connection, and the increasing development of technology also attributes to the rise of crime as well. Now, a bank can be robbed through a computer, extortion, and blackmail can be done through Electronic Mail, Mobile phone and other technologies have become a tool for terrorism and since the internet has no physical boundaries, the perpetrators are much harder to find. (Lalthlamuana, n.d.) Under the Information Technology Act-2000, there have been 81 cases registered in Mizoram with 2 cases in 2009, 3 cases in 2010, 5 cases in 2011, 4 cases in 2012, 9 cases in 2013, 25 cases in 2014, 9 cases in 2015, 16 cases in 2016 and 8 cases in 2017. (CID, CRIME, Mizoram, n.d)

According to Lalthlamuana, Chief Informatics Officer, Dept. of Inform. & Com. Technology, the misuse rate of Information Technology has also risen and due to the ignorance and lack of security, many youths are suffering from it. He also said that since misuse of IT has the ability to disrupt our community and state the need for Cyber Security and Social security is very important. (Lalthlamuana, n.d.) Bank fraud and abuse of social media have been increasing in the state of Mizoram, and the victims are mostly women and children of cyber-crime (Northeast Today, 2018)

Irene Lalruatkimi studied the social networking sites usage pattern among 210 college students in Aizawl, Mizoram and she mentioned in her research paper that youth are using social media to pour out their feelings, and suggest that it may be a way for them to release their stress, and she also viewed social networking sites as a social support system among youth. But she also mentioned that this could lead to a negative impact on their lives as they are documenting their lives publicly, cyber-crime has also emerged. (Lalruatkimi, 2017)

With many discussion forums created on social media, users seem to rely for information on one of these for forums as news spreads faster with no time or geographical barrier. Citizen journalism rises, but with this viral message and hoax news has also spread with cases such as a hoax story of a girl being gang-raped in the city which became registered for the spread of wrong information. The rapid spread of information, especially through social media, can lead to law and order problems. Oversharing of pictures of the victims' bodies or information also spread rapidly as well as (The Indian Express, 2015).

“Social media as a tool for micro-aggression: A case study in Mizoram” reported three cases related to social media incidents in Mizoram and in one case, three men brutally attack two men on July, 2015 and with the growth of social media used, it has become easy to circulate and received news and other information, and this assault had been circulating in social media platform like Facebook and Whatsapp that turned the news into a communal issues but the Police arrested these three men that same night, and investigate the motive it turned out that attackers were highly intoxicated, and this assault was not personal vendetta but an intoxication that went wrong. Later, the issues were addressed with the right information. (Lalmuanpuii, 2017) Other case was about social media post that was circulated on the Mizo in Online Communities in Facebook that hurt the sentiment of a particular locality perpetrator share a post on in Special Report - one of the biggest Mizo Online Community in facebook with more than 1 lakh member accusing that six “non-locals” men of sexually assaulting a girl student inside a hardware store, which turned out to be false and but it has strived up issues in the social media community as well as the locality of that place but the issues were addressed before any communal or other issues took place. (Lalmuanpuii, 2017)

## Conclusion

The development of information technology has also no doubt brought an easier way of committing a crime behind screens without physical or geographical barriers, and as seen from the literature, the use of social media has also been increasing with youth exposing themselves vulnerable even though it has provided much supportive benefit for them. (Lalruatkimi, 2017) It is suggested that this is due to the ignorance and lack of security which led to the suffering of especially on youths, women, and children. The misuse of Information technology has also disrupted the community as seen in the example of two cases in the above literature, the need for Cyber Security and Social security is very crucial. (Lalthlamuana, n.d.) Although the rate of cyber-crime is not as high as different parts of the world, it is crucial to take note and assumed that many crimes are not reported and the need for prevention and policies are important to avoid future problems as well.

Therefore, based on the literature the researcher suggested a crucial need for cyber-crime research in Mizoram due to a gap that can be seen in this area of research and in order to take up policy and prevention and awareness, research is necessary. The researcher also suggests, the following points for addressing cyber-bully in a school environment, suggested by Cassidy which can be adapted and changed according to future research on cyber-crime ie. Policy and procedure that suggested anti-bullying policy that prohibited behaviours and address jurisdictional issues, Curriculum that include internet etiquette School climate that is healthy, Professional development that gives importance to look out for signs and others, School outreach to the community: Education for parents, sharing of information, Relationship with police, Establishing a cyber-bullying task force and Modelling for students (Cassidy, 2013)

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