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IMPACT OF INTERNET TECHNOLOGY ON WOMEN'S SAFETY

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Abstract:

Today information technology plays an important role in our day to day life. Due to mobile technology and social media our lifestyle is changing. Rapid innovation in technology is complemented with rise in the crimes against women. The issues of safety of women and other vulnerable area of society are engaging the attention of the police and agencies concerned in and outside the government. The competence of technology in assuring women's safety is questionable. There are many safety apps are available in our mobile. Through this paper we will present positive and negative impact of technology on women's life. Researcher emphasizes on cybercrime incidences and its impact on women in the society. Due to innovation in ICT, Smart gadgets and devices are available that can be help for women security. Out-of-the box solutions and innovative applications that can be embedded in the mobile phones that helps women who are in trouble. Presence of mind, awareness and knowledge of technology are challenging factors for women's security.

Keywords: information technology, crimes against women, women security, Smart gadgets and devices

I] Introduction:

Women have always been the most vulnerable and often exploited part of society. So women security is the important concern all the time^[1]. The women and children harassment are increasing day by day at an exponential rate. Fourth most common crime against Women in India is a Rape cases. According to National Crime Records Bureau (NCRB) 2017 annual report, total number of rape cases are reported across only India are 56,709. Study found that overall 88% of reports reveals

some form of verbal sexual harassment that consist of unwelcome comments of a sexual nature, whistling, leering or making obscene gestures in their lifetime^[8]. The number of reported rape cases has been increasingly over the past decade. Most cases of physical harassment cases are happened when women are alone or while traveling. At late night women feel very insecure to step outside their house^[2]. Today due to technological advancement new security systems are designed for providing security to women so that they never feel helpless while facing such critical situations. An advanced system can be built that can detect the location and health condition of women that will enable us to take action accordingly^[3]. Information and Communication Technology (ICT) is emerging weapon for globalization in social, economic, and political revolution. ICT tools used in governance, education, finance marketing and development like BPO (Business Process Outsourcing) and KPO (Knowledge Process Outsourcing) etc. impact on women empowerment in India^[4].

II] Women Violence through Internet and Mobile Applications:

Millions of girls and women are subjected to deliberate violence due of their gender. Violence against girls and women (VAWG) has no limits, race, culture and income groups, profoundly harming victims, people around them, and society as a whole. Due to advancement in ICT, mobile communication and internet technology the social media promoted new opportunities that may leads to empowered huge chance of VAWG^[5]. Due to internet frames the urgency for effective legal and social controls on attitudes and criminal behavior online. The communication tools accessible by new technologies are being abused by both men and women to assert dominance, to manipulate, to terrorize, to humiliate, and to silence. IT Act clearly reveals different acts for violence, sexual and other offences while using internet and ICT in both online and offline mode Lack of technical knowledge and security awareness allow intruders for easy access to victims for trafficking and other forms of exploitation.

Children are the most target audience as they may have high levels of trust in people and less knowledge of cyber security. Cyber thieves regularly target children and teens where they're most active – chat rooms, social media, video streaming sites and online video games^[7]. Awareness among the parents security awareness are more likely to reduce cybercrime incidence. Following are some prominent method of cybercrime among women's/girls:

1. **Hacking:** Unauthorized access to systems or the illegal use of technology or resources for the purpose of getting personal information, altering or modifying information, or defaming and denigrating the victim and/or VAWG organizations called as hacking e.g., passwords violation and monitoring computer functions illegally, blocking computer resources, websites etc.
2. **Impersonation:** Use of technology for accessing the private information, embarrass or

shame the victim, creating fraudulent identity documents, contact victim for sensitive information etc. considered as impersonation. e.g., sending offensive emails from victim's email account; calling victim from unknown number to avoid call being blocked.

3. Surveillance/Tracking: The use of technology to monitor a victim's activities and behaviors in real-time or historically e.g. GPS tracking using mobile, recording keystrokes to recreate victim's activities on computer.

4. Harassment/Spamming: Using technology intruders may continuously contact, annoy, threaten, and/or scare the victim. This is ongoing activity, behavior and not a single isolated incident e.g., persistent mobile calls/ texts; filling up voicemail with messages so no one else can leave a message

5. Recruitment: Technology can be used to trap potential victims into violent situations; e.g., fraudulent postings and advertisements (dating sites; employment opportunities); traffickers using chat rooms, message boards, and websites to communicate/advertise etc.

6. Malicious Distribution: Manipulate and distribute defamatory and illegal materials related to the victim and/or VAWG organizations using technical resource; e.g., threatening to or leaking intimate photos/video, technology used as advertising tool to encourage violence against women.

7. Revenge Porn: It consist of intimate videos of another individual online with the aim of publicly shaming or individual posting either intimate photographs also humiliating that person, and even imposing real damage on the target's 'real-world' life. This is also called as non-consensual pornography. Posting of naked pictures and sending them usually via text messaging as an aspect of sexing. Bluett-Boyd reveals that "there is a gendered expectation for girls to provide nude images that draws on already existing social norms and scripts about heterosexuality, male entitlement and female attractiveness."

8. Anonymous Sharing: Anonymous sharing is popular communication practice among tweens and teens. Many messaging Apps like Snapchat allow users to post images and messages that only show up temporarily and then are removed. On the internet is temporary nothing is temporary.

Cyber thieves and bullies can create trap and easily take screenshots, photos of information, images before they removed. Popular apps like Whisper keep a user's identity unknown, while others like Anomo is a social networking app completely anonymous that gives you total choice and control to reveal certain pieces of yourself to the people you interact with. If your adolescents want to share anonymously. Using chatting applications you can chat one-on-one privately, play fun icebreaker games or you can share information about yourself^[8]. "After School" is one of the educational application developed precisely for teenagers and contains

information about social campaigns, scholarships and resources for counseling. Before allowing child for using anonymous sharing apps, discussion regarding their sharing, contact people, safety, and confidentiality should be check and monitored by their parents for their security. It is observed that Kids are very cautious of any messages containing links or attachments. So it is necessary to aware them regarding malware attachments and phishing incidences.

9. Indirect Messaging: The majority of social media sites have direct/indirect message features for connecting with friends, family and strangers. Indirect messages are popular with cyber thieves who place links directing to phishing sites and harmful downloads.

10. Video Streaming: The world of television programs and cable networks, familiar to many parents, has given way to online celebrities and YouTube videos for their children. Every day, YouTube users watch more than 1 billion of videos in hour. All of this traffic draws the attention of scammers and cyber thieves looking to hack the system for profit.

11. Online Games: Today video games are the most entertainment tools for kids, especially those that let them share their experiences and creations with others. Most of the video game has as some type of social component built in.

According to survey percentage of women using internet as a freedom, percentage of male and female use of social media and percentage of women abused online shown in following fig.No.1.2 and 3 respectively.

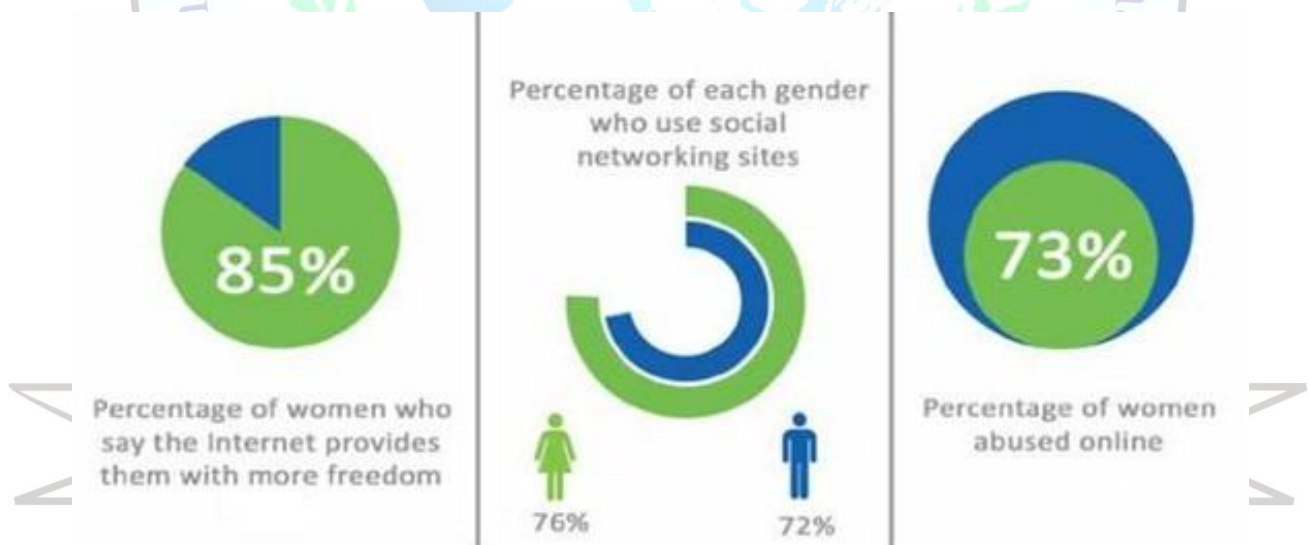


Fig 1. Internet Freedom for women Fig 2. Gender wise use of Social Media

Fig 3. Women Abused Online

As per cybercrime report the large number of cyber stalking victims registered in Maharashtra State and percentage of crime is increasing gradually as depicted in the table1. Table 2 reveals the cyber-attack cases various states in India.

Table 1: State-wise Cyber stalking Cases (Sec 354D IPC) ^[9]

State	No. of Cases
Maharashtra	301
Andhra Pradesh	48
Haryana	27
Telangana	26
Madhya Pradesh	25
Total India	542

Table 2. Cyber Attacks in India ^[9]

Publishing material containing sexually explicit act on the internet (Sec67A)		Publishing material depicting children in a sexually explicit act (Sec67B)		Publication of obscene sexually explicit act in electronic form (not specified in the report)	
Assam	92	Uttar Pradesh	16	Uttar Pradesh	517
Karnataka	42	Assam	8	Assam	288
Telangana	35	Madhya Pradesh	7	Karnataka	157
Maharashtra	27	Himachal Pradesh	4	West Bengal	90
Odisha	24	Rajasthan/Tamil Nadu	2	Haryana	83
Total	220	Total	37	Total	978

III] Women Security through Internet and Mobile Applications:

On-line safety tools and apps provides innovative tracking, monitoring and reporting methods; they represent civil society's immediate response to dealing with VAWG. Today the wave of safety technology developed for smartphone that include GPS trackers to lead people to your location users, through whistles to get bystanders attention, automatic video recordings to capture proof of a crime etc. For example, Guardly and BSAFE are free downloadable apps available for women's safety. Other examples include:

1. HARASS map: It is a mobile application that uses interactive online mapping that help to reduce social acceptability of sexual harassment. Reports are mapped and alerts messages are displayed as a red dot for intimidation. It is approved by the Egyptian Center for Women's Rights ^[10].

2. SafetiPin: It is a mobile application for women's safety which display location information and alerts for specific locations. Location wise Incidence history is store in this app and according to this data location map is developed to provide alerts about specific locations. It helps for the people moving to new city or unknown place this app helps to provide safety information according to types and score of incidences occurs in specific area. This is one of the safety application provides GPS tracking, directions for safety location and pin the safety or

unsafety location. It is Multilanguage application provides emergency helpline numbers in the nearest area.

3. VithU app: Using this application alert messages are sent out to the registered contacts, who receive your message along with your physical location.

4. Nirbhaya: It is one of the secure applications provided by the government for women's safety. The app sends an alert to resisted contacts with the user's location. The user can choose to send the alert in the form of an SOS (Save Your Souls) message, phone call, or a Facebook post. The app also provides the user with the facility of sending an alert by just shaking their phone in a situation of emergency. It also sends the user's location to chosen contacts every two hours and after a 300-meter change in position.

5. Pukar: Sends SMS alert with GPS location to preset emergency contacts at regular intervals. Safeguards the phone itself by making it silent and dimming the screen.

6. Raksha: Send location alert to emergency contacts even without switching on the app by pressing volume button. User can also dial 100 number and sends SMS even there is no mobile internet reaches.

7. GoSafely: Once activated, it alerts your contacts if you shake the phone vigorously or unplug the headphones. Emails and or text messages are sent with GPS location. Updates send at every minute till the app is disarmed. Each alert message includes your GPS location, street address (if available) and a 30- second audio recording etc.

8. Smart 24*7: Panic alert notifies emergency contacts; it records voices and takes photographs during the panic situation and transfers these to police. There's a call center and the user's primary contact can track movements.

9. Women Safety Security: The app recognizes shouting and crying as distress signals and sends text messages to emergency contacts with location.

10. Being Safe: In critical situation, the user can use this app to inform contacts about their location. Through this application you can allow to send alert to multiple contacts for emergency help. Also, besides the registered contacts, other users of this app in certain area range will be informed.

11. Smart Watch: The GPS and GSM integrated with smart watches is connected via Bluetooth to the smart phone and ring the alert notification to the emergency contact and signal is sent to nearest police station within GPS as an immediate alert It will be able to track the alert signal and find the location.

Conclusion:

The Internet plays important role in our day-to-day life. Women/ girl child security is a very

important concern. Due to advancements in technology and social media, it is very difficult to protect our personal information. Cybercrime incidences are increasing day by day due to lack of security awareness of ICT, internet and social media addiction and lack of security measures, etc. There are most mobile applications and websites create a trap for a user to collect confidential information from the women and leads to major cybercrime incidence like harassments, impersonation, hacking, etc. Due to innovation in ICT and the internet government and police departments provide many free mobile applications for women security. GSM, IoT based applications, tracking system, smart watch these are modern technology would be able to provide help and care toward the women and they will safer and allows them to work even at late nights and traveling to any place at any time without any fear. This system also helps to plan better security by classifying various threat regions from the data obtained from the database and hopefully reduce the crime against women to a great extent.

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