

Cyber Security Awareness Challenge: In India

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Abstract - Now days we are surrounded by internet. And the Infosec ¹ is the important feature of internet world. The information security is necessary for web based services. Every organizations, institutes and firms also maintain security of their information and they continuously worked to keep their data safe and secure. Organizations and private firms continuously trained their security professionals with latest technology. Information security is necessary for organizations as well as internet users who are using web based services like social networking, real time applications, E-mails. Organizations and firms know the importance of security but the user who does not know much about internet and security of information. The research will show why information security is necessary for organizations as well as other internet users, and how can they keep secure their information, how does their information used by hackers and what techniques used by hackers. And why security awareness is necessary for internet users and organizations. And what step is to be taken by government.

Key Words: Infosec, Cyber crime, Digital Signature, Cyber Law, Cyber Security.

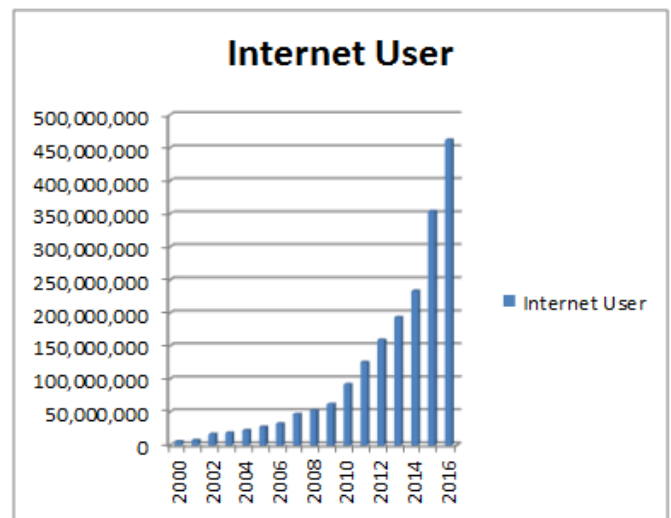
1. INTRODUCTION

Before 15 august 1995, Internet had been in India for many years in the form of ERNET². This was provided to government offices, scientific research centers, Organizations but from 15 august 1995 internet was available for all but in limited area by VSNL (Videsh Sanchar Nigam Limited). Since then till now internet area and internet users are continuously growing. But there is lack of awareness as compared to internet or technical growth in India. Private firms, government organizations, institutes aware about information security and they trained their security experts time to time according to new technology but there are huge internet users who don't know about information security and less aware about information security. They actually don't know how to protect their information from being misused by others because lack of awareness towards security. Most targeted peoples are general public because their information can be easily available from social networks and from their personal sources and by various cyber attacks, as well as other firms and organizations are also targeted because of their own

frustrated employees or by hackers for their entertainment or for money.

1.1 Internet Statics of India:

Before 15 august 1995 internet was only available to limited fields such as scientific research centers, government offices, military or some of educational institutes. After the internet available publically the users are continuously vary. This sounds good that the internet users are continuously growing since 1995 to now but the risk of cyber attacks or cyber crime also increasing. Now internet facility is easily available to all without paying huge amount the internet facility cost is low as compared to previous years and cell phones are the best gadget to use internet and connect worldwide without any extra effort. The internet statics shows how internet users are growing year by year:



2. Cyber crime:

Any unlawful act that committed knowingly or unknowingly through any electronic communication device or network like computer, cell phone, internet etc. that causes loss of time, money, privacy or integrity of target. Cyber crime committed:

- Cyber crime against individual
- Cyber crime against organization
- Cyber crime against society
- Cyber crime against
- Cyber crime against property

¹ Infosec - Information Security.

² ERNET – Educational Research Network

There are various reasons behind committing Cyber crime that are:

- Crime committed for personal entertainment
- To harass someone personally using cyber bullying or cyber stalking
- To earn money via blackmailing
- To take revenge for personal reason

There are various Cyber crime techniques but few of them are mostly used as Cyber attack techniques in India:

- Hacking
- Forgery
- E mail spoofing
- Cyber bullying
- Cyber stalking
- Spamming
- Pornography
- Online frauds
- Salami attacks
- Cyber defamation

According to NCRB³ Cyber crime are increasing day by day and due to lack of awareness most of the crimes are not filed or action not taken against crime.

3. Challenges or Need for Cyber security awareness:

The biggest challenge for cyber security awareness in India is population. We can spread security awareness at metro cities, urban areas, sub urban areas but what where the literature percentage is below 20% and they are using cell phone and internet facility but they actually don't know about the legal or illegal activities over internet they unknowingly committed crimes where law will be helpless because that act is illegal but the offender is innocence. While the biggest challenge amongst them all are well educated populations because they tend their selves so smart and techno friendly when the point comes on awareness they neglect the security features and sometimes commit such unlawful act to check whether something happened or not. The huge internet users come into age group between 18 to 35 years. Government may taking action against cyber criminals and introduced cyber law but people and companies are lake aware about security and they neglect the awareness. Most of the companies neglect security audits. There are millions of companies whose working online or their data uploaded on server but due to improper guidance or neglecting behavior or lack of security experts their customer's information accessed by hacker and they sell out that information at international market and earn money. All the banking system is online now but most of the banking sites or ATMs get hacked by hacker and transactions made online without knowing account holder. So that there are need of expertise of this field or need to keep update security policies as well as security techniques and should be aware about latest techniques and how to overcome them. Cyber crime is going to be so challenging for India in few years.

4. For awareness steps should be taken:

- There should be campaigning about cyber security awareness.
- There should be compulsory training program for all that will describe about cyber crime and cyber security.
- Government should place cyber security experts in every field.
- Cyber Thana or cyber cell must be in every district or in every city.
- The awareness should be friendlier and guidance should be easy for all.

5. CONCLUSIONS

Cyber security awareness or infosec awareness is necessary in India because internet is easiest way to commit crime there is no need to go out criminal only needs a network, a system or target that may be individual, organization, society or any property. Cyber crime continuously growing and almost everyone is targeted by different types of cyber attacks. So that the cyber security awareness should be spread more and more. Innocent people do not know how their personal information is being used by hackers and sell in international market. Cyber crime and cyber security is the biggest challenge for India as well as for other countries. Even now day's conventional crimes also committed using high technology that also comes into cyber crime category. There should be a strong strategy against cyber crime and cyber criminals that takes action against them and prevent from getting targeted. And should be a separate cyber court and cyber lawyer so that the number of pending case in India will be minimized. The more aware about information security the less target the people or organizations. And the cyber law should be more effectively come on force for cyber crimes and need for more implementation.

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³ NCRB: National Crime Records Bureau