Cyber-crime in India: How awful is it?

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Abstract—During the beyond years, the Internet has evolved into the so-called “Web 5.0”. Nevertheless, the huge use of the offered Internet services has rendered man or woman users an ability goal to cyber-criminals. The paper gives a evaluate and evaluation of various cyber-crimes and compares these findings to those of our preceding paintings. The provided results cover all the instances that were reported to the Cyber Crime and Computer Crime Unit of the Indian Police Force.

Keywords—Cyber-crime, cyber-crime detection, cyber-crime prevention.

I. INTRODUCTION

PERSONAL computers, smart telephones and cellular devices are ubiquitous in modern-day, technologically advanced societies. In addition, the enlargement of the Internet and Web 2.0 has given residents a big form of alternatives and offerings, for this reason allowing them to talk and collaborate among them. On the alternative hand, the so-referred to as our on-line world tends to be exploited through cyber-criminals, who are capable of attack their sufferers past any geographical constraints, as long as they may be online. Thus, the wide proliferation of Information and Communications Technology (ICT), similarly to the several positive results to the citizens and the society in trendy, provided a new field of criminality in cyberspace. The time period cyber-crime integrates all these crook sports that are made with the use of computer systems and the Internet, including monetary frauds, child pornography, identification robbery and highbrow belongings crimes. It is worth stating that in many cases the use of computer systems does no longer trade the fundamental person of against the law. For instance, a bribery stays a bribery, regardless of how the money became transferred (electronically, in the case of cybercrime) and regardless of the reality that using a pc can have an effect on the degree of the offence. Nevertheless, the introduction of facts and communication structures has virtually induced a qualitative alternate. The Internet is attractive to technologically perceptive criminals as it provides them the possibility to locate and research their sufferer’s behavior, widens their field of hobby and gives them the ability to exchange their identity. More importantly, they could perform from some other country consequently making. Their prosecution a complicated count number, because of the exceptional prison frameworks and the international approaches that have to be accompanied Which will arrest them. Contrary to traditional crimes, the offender and the victim are seldom in the equal physical place. Therefore, the law enforcement groups face several difficulties in each investigating and final such crime instances.

Cyberspace is nowadays characterized as the fifth not unusual domain (the others being land, sea, air and outer area) and is in great need for coordination, cooperation and prison measures amongst all nations[1],As cyber-crimes have a tendency to grow every day, leading to soaring revenues for the criminals and luck of agree with the Internet for the customers. According to recent reports, over 75% of online shoppers referred to protection as a number one difficulty to worry approximately when conducting business over the Internet [2].In India, cybercrime expenses to corporations greater than $10.3 million year, while inside the US one in five on line customers has been a sufferer of cybercrime in the closing two years, equating to $8 billion [2]. Another report on cyber-crime [3] Remarks 556 thousand and thousands of customers being manipulated each year, that is in truth extra than the complete populace of the European Union. More alarmingly, less than 1/2 of all victims call their prosecution a complicated count number, because of the exceptional prison frameworks and the international approaches that have to be accompanied Which will arrest them. Contrary to traditional crimes, the offender and the victim are seldom in the equal physical place. Therefore, the law enforcement groups face several difficulties in each investigating and final such crime instances.

II. METHODS OF DETECTION

A. Preparing

Preparation is the foundation of any cyber-security strategy. It involves several steps such as awareness, education, and training. Awareness is crucial as it helps employees to identify and understand the types of cyber-crimes and their consequences. Education is the next step where employees are trained on how to prevent and respond to cyber-crimes. This includes understanding the importance of strong passwords, not clicking on suspicious links, and reporting any suspicious activity.

B. Detection

Detection is the process of identifying potential cyber-crimes. This can be done through various methods such as monitoring network traffic, analyzing logs, and using intrusion detection systems (IDS). These methods help to identify potential threats and alert the security team to take action.

C. Response

Response is the process of responding to cyber-crimes. This involves several steps such as containment, eradication, and recovery. Containment involves stopping the threat from spreading further, eradication involves removing the threat from the system, and recovery involves restoring the system to its original state.

D. Recovery

Recovery is the process of restoring the system to its original state after a cyber-crime. This involves several steps such as data backup, data restoration, and security audits. Data backup involves creating copies of important data to ensure that it can be restored in case of a cyber-crime. Data restoration involves recovering the data after a cyber-crime. Security audits involve checking the system for vulnerabilities and fixing them to prevent future cyber-crimes.

E. Monitoring

Monitoring involves continuously monitoring the system for any signs of cyber-crimes. This includes monitoring network traffic, analyzing logs, and using intrusion detection systems (IDS). These methods help to identify potential threats and alert the security team to take action.

F. Reporting

Reporting is the process of reporting any cyber-crime to the appropriate authorities. This includes creating a report on the incident, documenting the process, and reporting to the authorities. The report should include information such as the type of cyber-crime, the date and time of the incident, and the steps taken to respond to the incident.

G. Follow-up

Follow-up involves following up with the authorities and the employees to ensure that the incident is resolved. This includes reviewing the incident report, discussing the steps taken, and providing feedback on the incident.

III. PREVENTION

Prevention is the process of preventing cyber-crimes from occurring. This involves several steps such as awareness, education, and training. Awareness is crucial as it helps employees to identify and understand the types of cyber-crimes and their consequences. Education is the next step where employees are trained on how to prevent and respond to cyber-crimes. This includes understanding the importance of strong passwords, not clicking on suspicious links, and reporting any suspicious activity.

IV. CONCLUSION

Cyber-crimes are a serious threat to individuals, businesses, and governments. However, with the right strategies, these threats can be mitigated. This paper has discussed several methods to prevent and respond to cyber-crimes, including awareness, education, and training, monitoring, reporting, and follow-up. These methods can be used to prevent and respond to cyber-crimes and ensure the security of individuals, businesses, and governments.

V. REFERENCES


VI. ACKNOWLEDGMENTS

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VII. BIOGRAPHIES

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and affront the trouble within a satisfactory possible manner. It is important to attain a safe and reliable our on-line world surroundings inside the context of a rising records society to maximize the benefits of the ICT [1]. The rest of the paper is organized as follows. Section II seems on the associated work and similar projects both domestic and international. Section III provides and analyses the statistical facts, even as Section IV concludes this paper with a few feedback concerning the future route of these studies.

3.1 Cyber Crime

Sussman and Heuston first proposed the term “Cyber Crime” within the 12 months 1995. Cybercrime cannot be defined as an unmarried definition, its miles high quality considered as a set of acts or conducts. These acts are based totally on the material offense item that affects computer statistics or systems. These are the illegal acts in which a digital tool or data system is a tool or a target or it can be the combination of each. The cybercrime is likewise called digital crimes, laptop-associated crimes, e-crime, high technology crime, records age crime, and many others in easy time period we are able to describe, “Cyber Crime” are the offences or crimes that takes location over electronic communications or facts systems. These forms of crimes are essentially the unlawful sports in which a computer and a network are concerned. Due of the development of the net, the volumes of the cybercrime sports are also increasing because while committing against the law there’s no longer a need for the bodily gift of the criminal.

The unusual feature of cybercrime is that the victim and the offender might also never come into direct contact. Cybercriminals often favor functioning from international locations with nonexistent or weak cybercrime laws that allow you to lessen the possibilities of detection and prosecution.

There is a myth many of the people that cyber-crimes can handiest be devoted over the cyberspace or the internet. In Truth cybercrimes can also be dedicated without one’s involvement within the cyberspace, it isn’t always vital that the Cyber crook ought to continue to be present on-line. Software Privateness may be taken for instance.

### 3.1.1 History of Cyber Crime

The first Cyber Crime changed into recorded inside the yr 1820.

The primeval sort of laptop has been in Japan, China and India in view that 3500 B.C, but Charles Babbage’s analytical the engine is considered as the time of modern-day computer systems. In the yr 1820, in France a textile manufacturer named Joseph-Marie Jacquard created the loom. This tool allowed a series of steps that was continual in the the weaving of special fabric or substances. This ended in an exceeding issue among the Jacquard’s people that their livelihoods in addition to their conventional employment have been being threatened, and prefer to sabotage that allows you to discourage Jacquard so that the brand new generation can’t be Applied inside the destiny

#### 3.1.2 Evolution of Cyber Crime

The cybercrime is evolved from Morris Worm to the Ransom ware. Many countries, which include India, are operating to prevent such crimes or assaults, but these assaults are constantly converting and affecting our country.

**Table-1: Evolution of Cyber Crime**

<table>
<thead>
<tr>
<th>Years</th>
<th>Types of Attacks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1997</td>
<td>Cybercrimes and viruses initiated, that consists of Morris Code malicious program and other.</td>
</tr>
<tr>
<td>2004</td>
<td>Malicious code, Trojan, Advanced bug etc.</td>
</tr>
<tr>
<td>2007</td>
<td>Identifying thief, Phishing and many others.</td>
</tr>
<tr>
<td>2010</td>
<td>DNS Attack, Rise of Botnets, SQL assaults etc.</td>
</tr>
<tr>
<td>2013</td>
<td>Social Engineering, DOS Attack, Botnets, Malicious Emails, Ransom ware assault etc.</td>
</tr>
<tr>
<td>Present</td>
<td>Banking Malware, Key logger, Bit coin wallet, Phone hijacking, Android hack, Cyber conflict and so on.</td>
</tr>
</tbody>
</table>

#### 3.1.3 Classifications of Cyber Crime

Cyber Crime can be classified into four essential categories. They are as follows:

- **Cyber Crime towards individuals:** Crimes which can be Committed by way of the cyber criminals in opposition to a character or a person. A few cyber-crimes towards people are:

  - **Cyber Crime towards people:** Crimes, which might be dedicated by using the cyber criminals against a person or a person. A few cyber-crimes in opposition to people are Email spoofing: This technique is a forgery of an email header. The manner that the message seems to have obtained from a person or somewhere other than the real or real source. These procedures are usually used in unsolicited mail campaigns or in phishing, because human beings are likely going to open an electronic mail or an e-mail when they suppose that the email has been dispatched by means of a legitimate supply.
III. CYBER CRIME INCIDENTS IN INDIA FOR 2011 AND 2012

Cyber Crime Examples Several instances of the well-known “Nigerian letters” cybercrime occurred in December 2011. These involved sending emails to internet users for supposedly pending large amounts of money, mainly earned by participation in lotteries. The purpose was to collect personal information from the recipients of these letters. The messages were written in English and were also sent to mobile phone numbers. These messages were announcing to the recipient that they had won e.g. two million euros. In a second cybercrime case in September 2011, three people were accused of fraud and for exploiting a mobile phone company. By using advanced techniques, they succeeded in hacking into the company’s computer systems and they managed to illegally sell internet connections to Cuba. The result was the company to be charged with the amount of 690,501 Euros. The result was the company to be charged with the amount of 690,501 Euros.
B. Cyber Crime Statistics for 2011

According to statistical information supplied by means of the Ministry of Citizen Protection of the Greek Government for 2011, most people of cybercrime cases the usage of social networks were made through Facebook, as it’s miles shown in Figure 1. Significantly fewer cases the use of different social networks (e.g. Twitter, Zoo, Badoo, Adoos, Windows Live) had been recorded.

The most important cyber crime instances the usage of Facebook for 2011 out of a total of 327 (proven in Figure 1) are broken down as follows: 203 cases of capability suicide, 30 cases of hacking of personal facts (photographs published without permission, fakeprofiles), 17 cases of statutory rape and 15 cases of threats.

Computer crime or cybercrime in India has been evolving swiftly in the 21st century. Technical aid scams, at the side of impersonation of the IRS, are among the maximum not unusual varieties of self assurance hints used with a purpose to obtain money from unsuspecting victims. Cybercrime and cybersecurity are troubles that could hardly ever be separated in interconnected surroundings. The fact that the 2010 UN General Assembly resolution on cybersecurity addresses cybercrime as one primary mission underlines this.

Cybersecurity performs an essential function inside the ongoing improvement of information technology, in addition to Internet offerings. Enhancing cybersecurity and defensive essential facts infrastructures are essential to each kingdom’s security and financial nicely being. Making the Internet safer (and defensive Internet users) has grow to be indispensable to the improvement of recent services in addition to government policy. Deterring cybercrime is an crucial aspect of a country wide cybersecurity and critical information infrastructure safety method. In unique, this includes the adoption of suitable rules towards the misuse of ICTs for crook or other purposes and sports meant to have an effect on the integrity of national critical infrastructures. At the countrywide degree, that is a shared responsibility requiring coordinated motion related to prevention, instruction, reaction and restoration from incidents at the part of government government, the personal zone and residents. At the nearby and global stage, this entails cooperation and coordination with applicable partners. The method and implementation of a countrywide framework and method for cybersecurity for that reason calls for a comprehensive method. Cybersecurity strategies for example, the development of technical protection structures or the training of customers to save you them from turning into sufferers of cybercrime – can assist to reduce the threat of cybercrime. The improvement and support of cybersecurity techniques are a important detail within the combat towards cybercrime.
As quickly as computer systems emerge as an vital a part of our lifestyles, the danger of information leakage has also improved. Hackers are usually in search of to get right of entry to confidential facts, for that they may be growing their techniques and techniques.

Today Cybercrime has reached the extent of competition. Organizations are spending millions to protect their person’s information. Somehow, the non-stop evolution of attackers is making it impossible to achieve this. Hacker’s community is supplying hacking as a provider and making it a enterprise of hacking with greater advanced and prepared structure. Thus, it creates opposition inside the commercial enterprise and attracts extra attackers to sign up for and take part.

Cyber-assaults that started from the unmarried Creeper virus has now reached to a large collection of viruses and malware.
There are many cases in the records that modified the arena of hacking. The virus that modified the contemporary day cybercrime “Morris Worm” was one of the first computer worms distributed thru the Internet in 1988. It became first to advantage media interest.

REFERENCES