Online Fraud & Cyber Security

Dr. Kirti Arekar

Professor & Program Director (CPDS)

National Institute of Securities Markets

(A Capacity Building Initiative of SEBI)

Introduction to Online Fraud

Cyber Crime refers to criminal activities that occurs in the digital realms, specially targeting computers, network and electronics devices.

These crime often involves the theft of sensitive information, fraud or the disruption of the services.

Example – A cybercriminals hacks on the individual's email account, steal their personal information and uses it to commit identity commit, take out loans and purchases on the victim's name.

Types of Online Fraud

CYBERSTALKING

IDENTITY THEFT

FRAUD

HACKING — THE ART OF EXPLOITATION

Online Staking – Harassing or threatening someone online, often through repeated unwanted contacts.

Example – A person receives numerous unwanted messages from an ex-partner on social media, causing distress and fear for their safety.

Stealing someone's personal information to impersonate them for financial gain or other nasty purpose.

Example – A hacker obtains a individual's social security number and uses it to apply for a credit card in the victim's name.

Using digital means to deceive someone in order to obtain money, property or services.

Example – A scammer pretends to be representative from a victim's bank and convenience them to provide their account details, which are then used to steals funds.

Unauthorized access to computers, networks or data.

Example – A cyber criminals get the access of sensitive data, such as customer data.

Techniques used in Committing Online Fraud

Manipulating people into revealing confidential information or performing action that compromise security.

Example - A scammer possess a tech support representative and convinces the victim to provide their login credentials.

Sending fraudulent emails or messages designed to trick receivers into revealing sensitive information or downloading malware.

Examples – An email, disguised as a sincere request from a bank, directs the recipients to a fake website where they are asked to enter their account details.

Malicious software that infiltrates a target system to steal data, cause damage, or facilitate further attacks.

Example – A victim unknowingly downloads a ransomware program which encrypts their files and demands payments for their release.

Overwhelming a target website or network with a flood of traffic causing a disruption in the services.

Example – A group of hackers launch the DDOS against the popular e-commerce sites, rendering it inaccessible to customer during a crucial sales period.

Motivation behind online Fraud

Financial Gain

Many online fraud driven by the desire of the money.

Example – A hacker steals and sells credit card information on the dark web for personal enrichment

Activism

Some cybercriminals engage in hacking to promote a particular cause or ideology .

Example – A hackers group spoils the government website to protest censorship policies.

Surveillance

Cyber criminals may be involved in spying on individuals, organizations and governments to obtain sensitive information.

Example – State-sponsored hackers infiltrate a foreign companies to steal intellectual property or trade secretes.
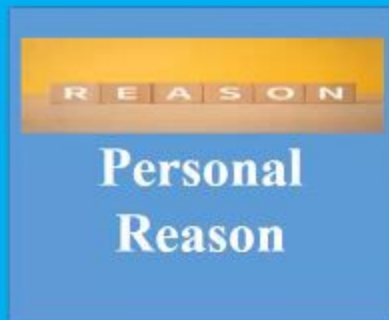
Personal Reason

Some cyber crimes are motivated by the personal grudges , jealously or desire of revenge.

Example – A dissatisfied employee damages a company's network after being fired.

Impact of Online Fraud

- Loss of Personal Data
- Financial losses
- Reputation damage
- National Security Implication
- Psychological impact

Channels of Online Fraud or Cyber Crime

- Online platforms and networks

- Social media and cyber crimes

- Dark web and Dark web Channels

- Malware Distribution Channels

Online Fraud Methods

- Online Stalking and Online Squatting

- Online Extortion and Online Cheating

- Cyber Warfare and Cyber Terrorism

- Phishing & Hacking

Computer Hackers

1. WHITE HAT HACKERS

2. BLACK HAT HACKERS

3. GREY HAT HACKERS

Online Fraud Management & How to Prevent it?

- Prevention Controls

- Detection Controls

- Mitigation Controls

- Encryption/Decryption

Incident of Online Fraud/ Cyber Crime

- Cyber Crime Reporting

- Cyber Crime Investigation

- Cyber Crime Management

- Evidence Collection & Chain of Custody

Electronic Transaction & How to Prevent cyber crime/fraud?

- Online Transactions

- Mobile Payments

- Digital Wallets

- Block Chain Transactions

TOP 5 HOLLYWOOD MOVIES ON HACKING

WARGAMES

BRUCE WILLIS
DIE HARD
WITH A VENGEANCE
JEREMY IRONS   SAMUEL L. JACKSON

BASED ON THE INTERNATIONAL BEST SELLING NOVEL
STIEG LARSSON'S
THE GIRL WITH THE
DRAGON TATTOO

CITIZENFOUR

GOODBYE, FRIEND.
MR. ROBOT
THE FINAL SEASON: 10.6