Artificial Intelligence usability and threats in Cyber World

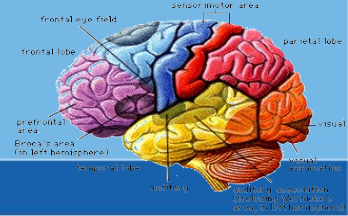**Dr. Gaurav Gupta**

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Evolution of the Desk

Criminals are most creative but extremely lazy people on earth

Artificial Intelligence

- Artificial intelligence (AI) is intelligence—perceiving, synthesizing, and inferring information—demonstrated by machines, as opposed to intelligence displayed by animals and humans.

- Important things to note is that it works well where large data points needs to be analyzed.

- Deep Fakes, Synthetic audio, video and images and data crunching etc.

Computer Frauds and Cyber Crimes (CFCC)

CFCC requires Digital Forensic Investigation

Cyber Crime

1. Thispersondoesnotexist.com using AI, ML.

2. Synthetic Video, images, audio, text, document

3. Counterfeiting

4. Robotic Arms

5. Playing with Emotions and Psychology

6. Human Intelligence against humans

7. Infotainment forensics and car sensors

8. Human sense including Maps, autocorrect, etc

What can go wrong?

1. **One can loose phone**

   - **To random guy**

   - **To criminal guy**

2. **What will you do if you loose your phone**

   - **Find my device**

   - **FIR**

   - **New SIM issue**

   - **Any other thing**

What all is available in phone?

1. **Personal Data**

   - **To random guy**

   - **To criminal guy**

2. **Official Data**

   - **To random guy**

   - **To criminal guy**

3. **SIM**

4. **Device**

5. **Access to various apps, websites**

1. TRAI published Mobile Number Revocation List (MNRL) every month.

2. What can go wrong with this list?

3. What will person who gets your lost phone will do?

Convergence of Technologies to provide Convenience

Rapid speed of change of Technology

What will you do in this case

www.G00GLE.C0M

What will you do in this case

www. SBI.CO.IN

Which one do you think offers more risk if you need to click one

www.OGNC.CO.IN

Can you read what is written below?

I cnduo't bvleiee taht I culod aulaclty uesdtannrd waht I was rdnaieg. Unisg the icndeblire pweor of the hmuan mnid, aocdcrnig to rseecrah at Cmabrigde Uinervtisy, it dseno't mttaer in waht oderr the lterets in a wrod are, the olny irpoamtnt tihng is taht the frsit and lsat ltteer be in the rhgit pclae. The rset can be a taotl mses and you can sitll raed it whoutit a pboerlm. Tihs is bucseae the huamn mnid deos not raed ervey ltteer by istlef, but the wrod as a wlohe. Aaznmig, huh? Yaeh and I awlyas tghhuot slelinpg was ipmorantt!

Exploiting Emotions !

Criminals deceive the human mind by manipulating emotions.

Exploiting emotions leads to computer frauds and cyber crimes:

- **Trust (Calling from bank, link for payments)**

- **Greed (Winning Lottery, Inheritance, free or extremely lucrative deals)**

- **Panic (Card or account blocking, account hacked being misused)**

- **Fear and Fear of Missing Out (offer expiring in minutes)**

- **Threat (someone injured or hospitalised, near and dear one is danger)**

- **Disruption (RFID Tags, Demonetisation, Car key Fobs)**

Creativity Examples

- **Mine social media**

- **Internet and Gaming Addiction**

- **Luring by providing F R E E**

- **Exploiting technology like Artificial Intelligence, Machine Language to develop Deep Fakes (https://thispersondoesnotexist.com)**

- **Robotic Arms**

- **Privacy Violations**

Myth # 1

Social Media Forensics is fun

Reality

It depends

What Google Knows about you

Reality

It will freak you out if you get to know how much of your information Facebook and Google and similar social media sites store about you, without you even realizing it. You can download the data Google has about you at **takeout.google.com.**

The size of this data is typically 5 to 10 GB for each user. The recent expansion of Google's Timeline feature is a goldmine for law enforcement agencies as it can provide investigators unprecedented access to users' location history data, allowing them in many cases to track a person's physical movements over the course of years. Your car knows where you have been, your phone knows more about you than you know about yourself.

Myth # 2
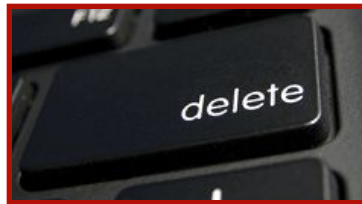
Press **delete** and Data is gone forever

But a forensic scientist will always be able to recover data.

And one need many tools to solve cases

Reality

Data once created will always remain in storage media.

Data remains available physically on storage media in most cases.

Deletion event only marks logical deletion of data.

Recovery Depends on capability/ knowledge/ skills/ resources/ motivation of person wanting it back.

Never create a piece of Electronic data (Video, Audio or Text) which you do not want to retain

Forever

(it may haunt you even after a long time)

Internet and Online Gaming addiction is real

Reality

1. Young children aged 10–15 are addicted to online games (PubG, and so on).

2. Teenagers aged 15–17 are surfing Facebook for 2 to 10 hours a day.

3. Youngsters are taking videos and selfies at dangerous locations for TikTok/Instagram platforms and losing their lives due to carelessness.

4. Parents of infants and young children are feeding them while showing animations on tabs/phones.

5. Screen time of children is increasing constantly while outdoor time is reducing and is hampering physical and mental development.

In todays world

Survival of Most Aware is the mantra.

Myth # 4

Free is Always bad

Free is Always Bad

- **F R E E is being used to lure unsuspecting users where most users fail to understand that if you are not paying for it, you're not the customer; you're the product being sold.**

- **Juice Jacking**

- **The Danger of 'Lost and Found' USBs**

Hardware key loggers

cannot be detected through

any kind of

anti-virus or other investigating software

Prevention

is better than Cure

is

Also applicable

in the digital world

CYBER UNSAFE

CYBER UNSAFE

Recent Launch

5 Star Reviews

Bestseller

A HANDBOOK FOR PREVENTING
COMPUTER FRAUDS AND CYBER CRIMES

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GAURAV GUPTA | GARIMA GUPTA

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Myth or Reality 21

Technology Addiction Is Spreading Like an Epidemic and Nothing Can Be Done About It

THIS IS THE REALITY — Availability of economical, technologically enhanced hardware has led to the development of solutions which leverage artificial intelligence and predict the user's psychology, leading to addictive behaviour. The ultimate aim of all service providers is to grab the user's attention and keep them glued to the screen in order to earn maximum profit by selling data or showing advertisements.

There is a race between companies to develop artificial intelligence based attention seeking algorithms leveraging the neuroplasticity of the brain that leads to addiction (digital dopamine). As per a study conducted by NIMHANS, 73 per cent of teenagers in urban India are affected by 'psychiatric distress', and overuse of digital technology has been cited as one of the major reasons impacting mental and physical health adversely. SHUT (Service for Healthy Use of Technology) is one such initiative by the National Institute of Mental Health and Neurosciences Centre for Well-Being helping manage technology addiction. Discrimination based on digital behaviour is real and will have far-reaching impacts on mankind.

It is a great irony that bad things feel good and good things feel bad. So get addicted to good things for a better life.

Myth or Reality 26

Criminals Only Target Big Corporate Houses Rather Than Small Organizations or Individuals

THIS IS A MYTH — Criminals are very lazy people and want to make easy money. Targeting small organizations and individuals instead of big corporate houses ensures lesser chances of being caught up in legal complications. It is less risky to target small organizations and individuals as they will not have sufficient time and resources to fight against criminals.

Criminals target corporates operating in non-IT businesses. As per media reports, some such recent examples are the Big Basket data leak; debit/credit card data leak of a famous Indian bank; and data breaches of the Marriott chain of hotels, JustDial, and edutech startup Unacademy. It has also been reported that footage and live feeds from 150,000 surveillance cameras, including those belonging to carmaker Tesla, were accessed by hackers in March 2021.

Once upon a time, it used to be the case that the wealthier you are, more immune you are to crime. Cyber crime has flippped it the other way in today's Internet era.

Card in Pocket Being Misused

Rahul was on his way to meet his friends for camping. He stopped at a petrol pump to get his car tank refuelled. He paid

Questions
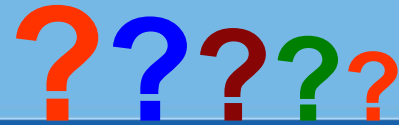
- **Put Pin on your SIM**

- **Lock your phone while driving using google map as it does gets locked automatically**

- **Lock your aadhar biometric**

- **Using Net banking restrict international transaction and put limits**

- **Remove CVV number from back of your credit/debit card**

- **Always take backups at frequent intervals and keep it disconnected and safe**

- **Shred your garbage as it contains useful information**

- **Delete data from social media site as it can revel a lot about you.**

THANK YOU!

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