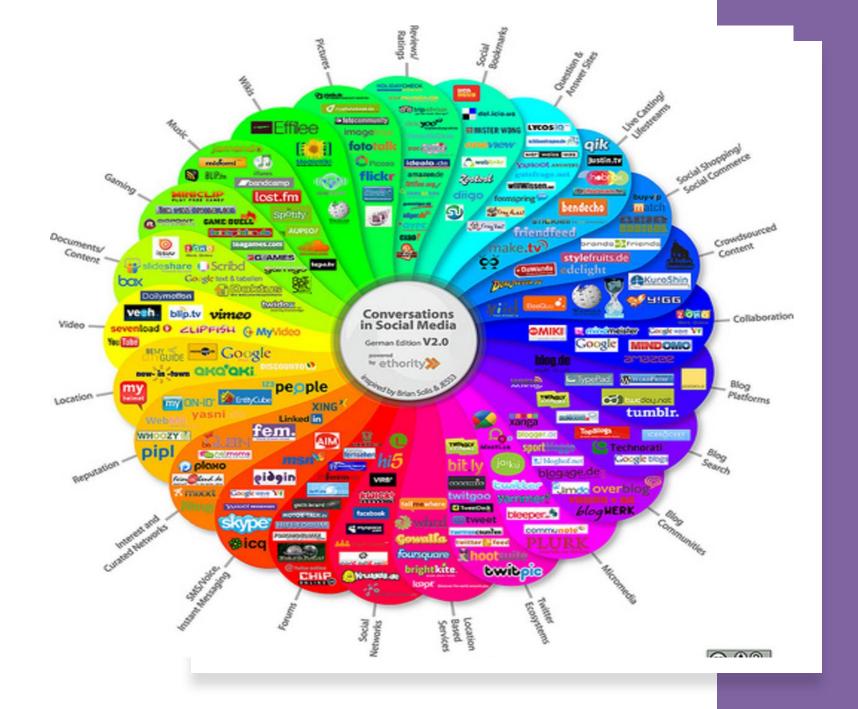
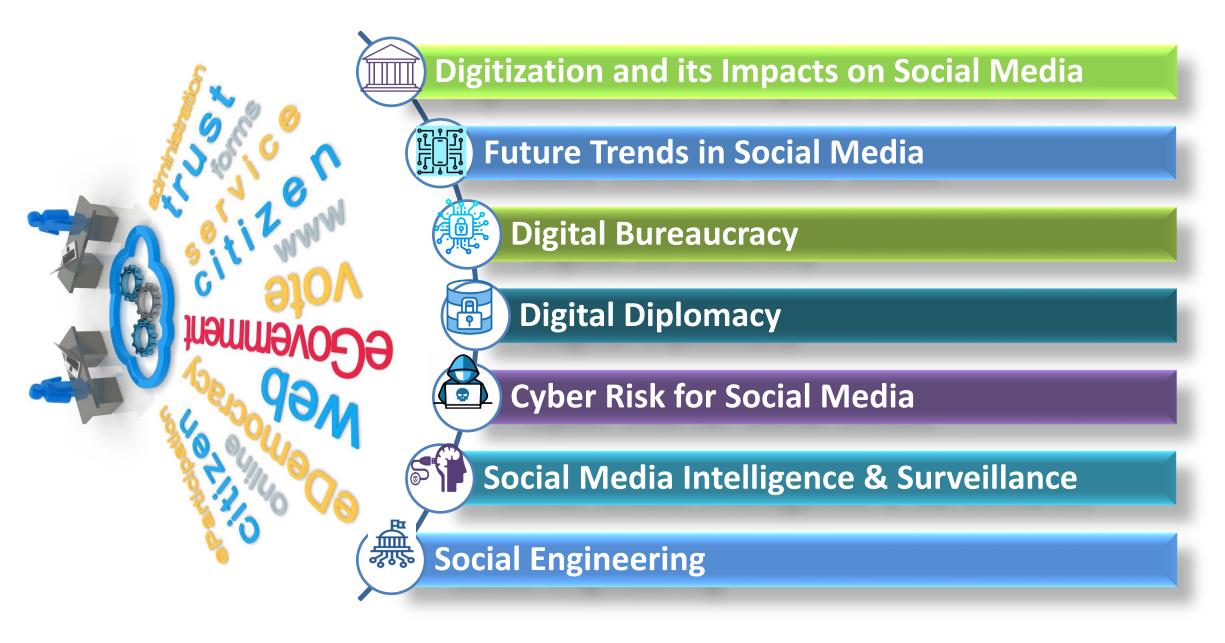
Future of Social Media

By Ayub Shaik



Media...Future of Social Media





Ayub Shaik +91 900 040 4422 smayub@gmail.com

Education

B.Tech., MBA

Experience

20 Years of IT Experience of which 10 with Cyber Defense, Threat Intelligence, Telecom Intelligence & Digital Transformation.

Certification

ISO27001

ISO 22301 LI

CoBIT5

TOGAF 9

Prince2

CBCI (BCM)

MCITP

CCNA

Oracle Big Data

Oracle Virtualization

Oracle DB12

Oracle GTM

Expertise

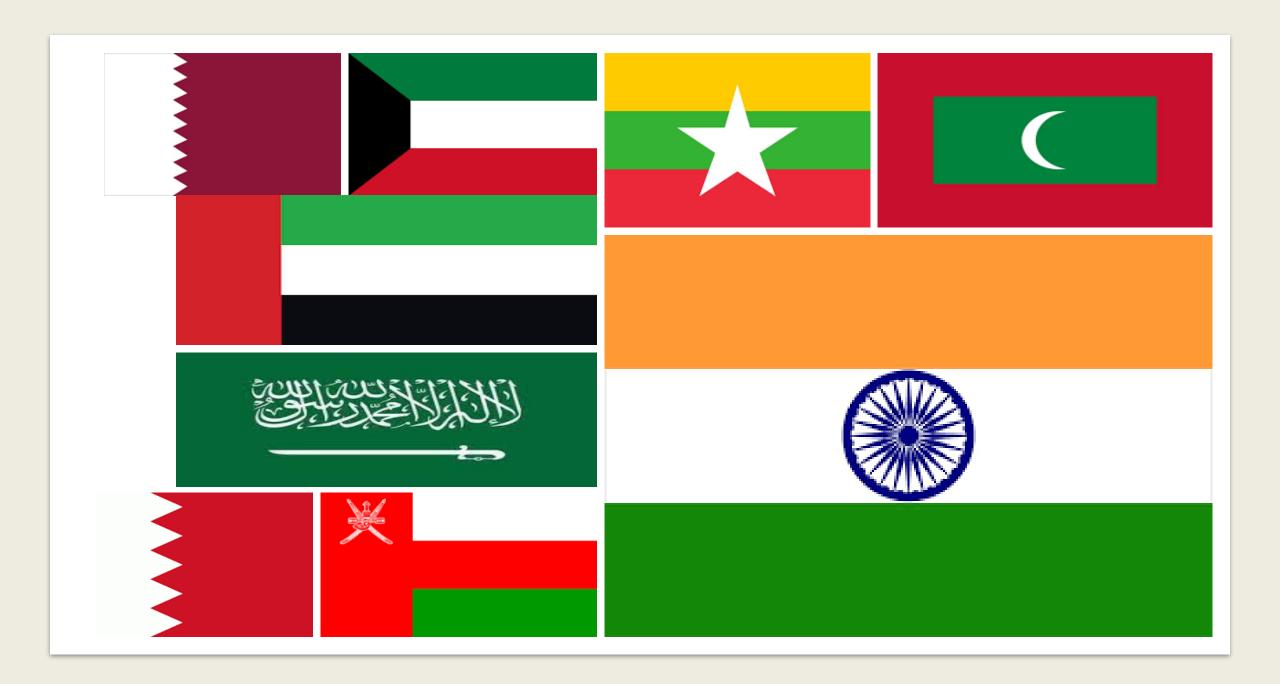
Cyber Risk Advisor to the Governments, PSU's & Critical Infrastructure Entities







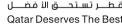






Strategic Customers

























MINISTRY OF FINANCE

































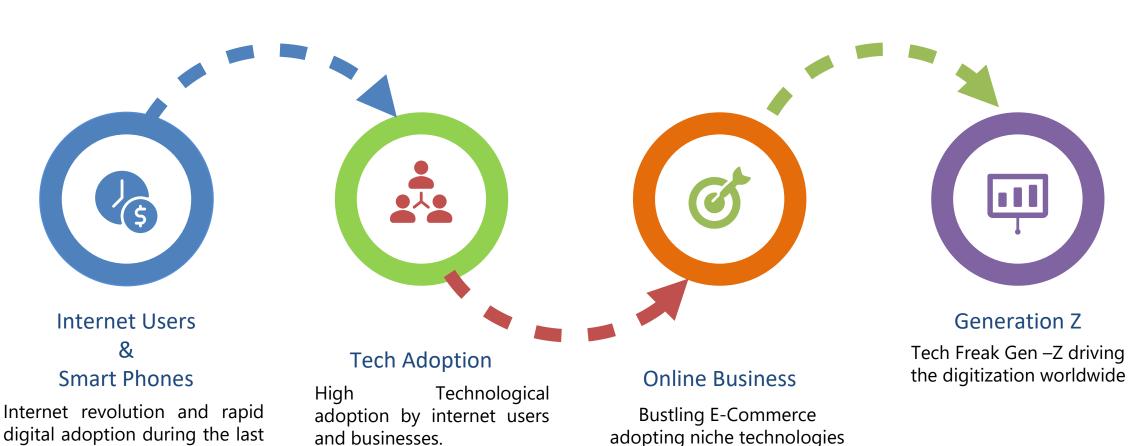






Digitalization Factors

The implications of COVID-19 have accelerated digital adoption. The increasing use of technology to work, play, and stay connected have shaped new digital habits.



2 years are driving everyone

shift their business online



ESSENTIAL DIGITAL HEADLINES

OVERVIEW OF THE ADOPTION AND USE OF CONNECTED DEVICES AND SERVICES



TOTAL POPULATION



UNIQUE MOBILE PHONE USERS



INTERNET USERS



ACTIVE SOCIAL MEDIA USERS



7.93 BILLION

URBANISATION

57.0%

5.32 BILLION

vs. POPULATION

67.0%

5.00 BILLION

vs. POPULATION

63.0%

4.65
BILLION

vs. POPULATION

58.7%



ESSENTIAL DIGITAL HEADLINES

OVERVIEW OF THE ADOPTION AND USE OF CONNECTED DEVICES AND SERVICES



TOTAL POPULATION



3

CELLULAR MOBILE CONNECTIONS



1.14
BILLION
vs. POPULATION

81.3%

INTERNET USERS



658.0 MILLION

vs. POPULATION

47.0%

ACTIVE SOCIAL MEDIA USERS



467.0 MILLION

vs. POPULATION

33.4%

1.40
BILLION
URBANISATION

35.9%

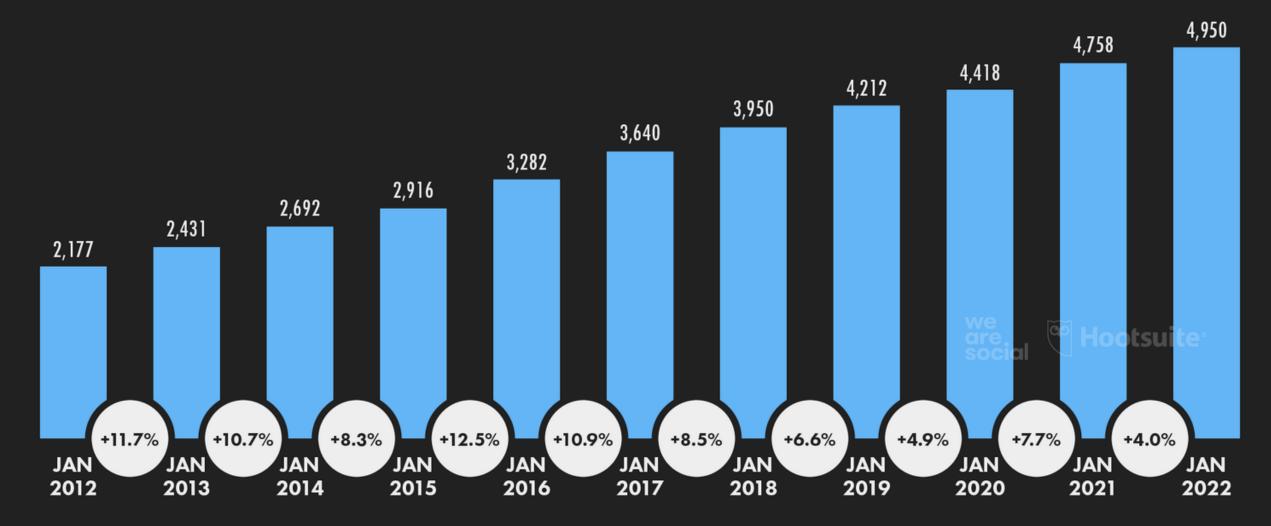




INTERNET USERS OVER TIME

NUMBER OF INTERNET USERS (IN MILLIONS) AND YEAR-ON-YEAR CHANGE











What is Metaverse

Metaverse is an augmented reality platform that allows users to create interactive experiences that merge the digital world with the physical world.

How to Enter Metaverse

https://decentraland.org/

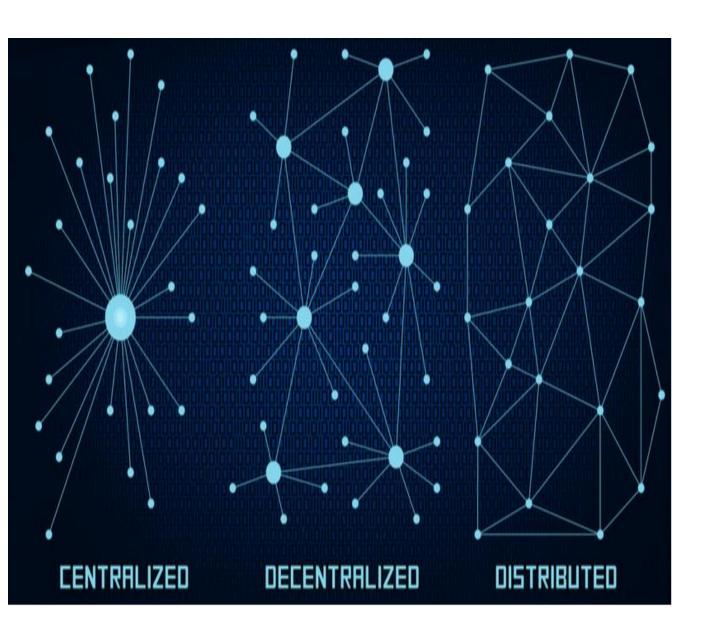
- Create an Avatar
- > Explore the virtual world
- Play games
- Attend Events
- Connect with new friends
- Invest on Virtual real estates
- Trade business using crypto currencies
- Build Business
- Create NFT and Trade

DeepFakes

- Deepfake is a type of artificial intelligence used to create convincing images, audio and video hoaxes.
- Spread misinformation and inspire misunderstanding, fear or mislead.
- Create false narratives of people or group
- Create revenge porn to impact their integrity.
- Generate a specific public image for the subject (and sometimes make a one of themselves that contrasts and depends on the subject's falsified public image)
- Censure or mock the subject for deception
- Societal unrest

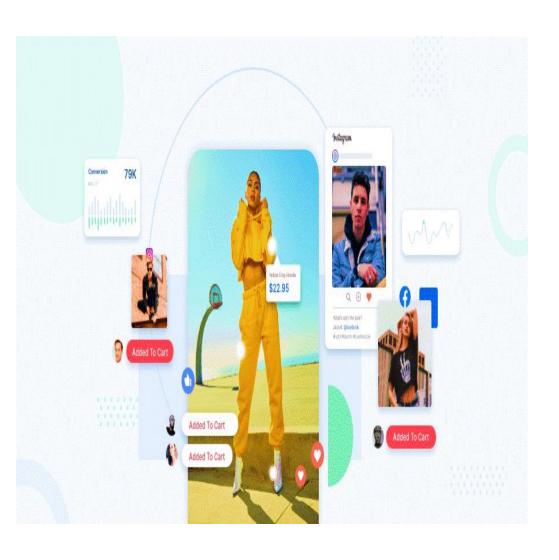


Decentralized Network



- Centralized Network: is controlled by a single admin. A single authority will have all the controls through a single central server.
- Decentralized Network: In this whole network will be distributed, Every node in the network will work as an individual authority. These nodes have their own decision-making powers.
- ▶ Distributed Network: In this no one needs to know or trust anyone else. Each member in the network has a copy of the exact same data in the form of a distributed ledger. If a member's ledger is altered or corrupted in any way, it will be rejected by the majority of the members in the network

Social Commerce



Social commerce is the use of social media platforms to promote and sell products and services. It encourages and allows users to buy products directly within social media platforms, never having to open another browser

The Six Pillars Of Social Commerce

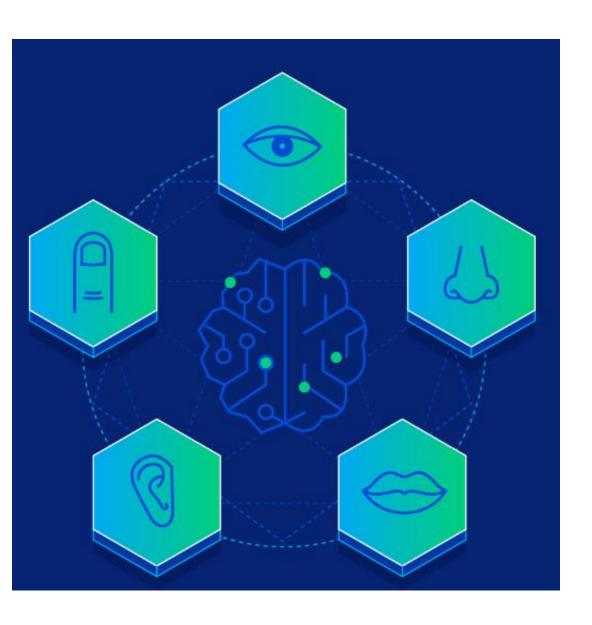
- 1. Buyers' community (GDGT)
- 2. Group buying (Groupon, Living social)
- 3. Purchase sharing (JustBoughtIt)
- 4. Curation (Polyvore, Pinterest)
- 5. Social advice (Fashism)
- 6. Co-shopping

Predictive Analytics



- In social media, predictive models bring out customer patterns derived from the historical and transactional data to identify risks and opportunities.
- > Few types of predictive analytics in social media
 - 1. Performance metrics
 - 2. Audience analytics
 - 3. Competitor analytics
 - 4. Paid social analytics
 - 5. Influencer analytics
 - 6. Sentiment analysis
 - 7. Behavior Analytics

Multi Sensory Social Media



Multi-sensory marketing is the art and science of engaging our senses holistically. Research demonstrates that if we trigger a response from two of your customer's senses, such as sound and visual, a customer's experience is enhanced, and brand engagement is multiplied.

> The five basic sensory systems:

- 1. Visual.
- 2. Auditory.
- 3. Olfactory (smell) System.
- 4. Gustatory (taste) System.
- 5. Tactile System.

Digital Bureaucracy



Government production is based on bureaucracy. The classic bureaucracy is challenged by a shift from paper-based to digitized information, the shift also offers transparency, significant productivity gains, and more efficient service delivery.

Pros:

- > Enhances the access of the civil servants for the people
- > created a positive outlook towards an institution long perceived as opaque and inaccessible.
- increased awareness among people about government policies and programs.
- ➤ opportunity for the bureaucrats to shape the public discourse and engage with the public while being politically neutral.
- created an effective system where we could get citizens' feedback in a seamless manner

Advantages

Connect

- Create engaging posts, photos and videos.
- Conduct Survey for the audience.

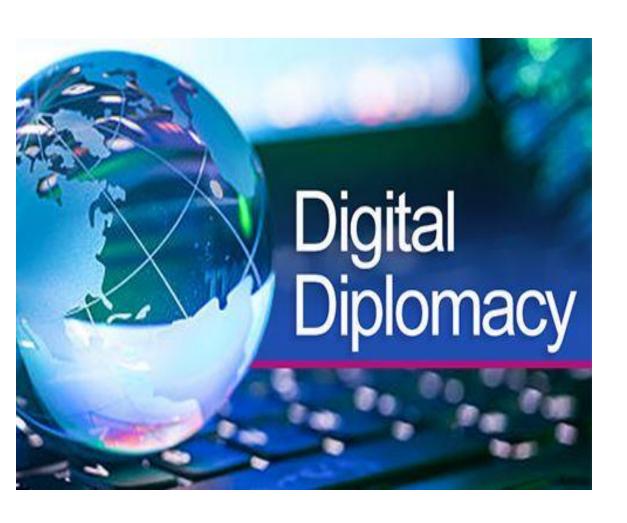
Engage

- Receive feedback from an audience.
- Listen to opinions and commentary on issues.

Manage

- Real time Situational Awareness
- Understand the pulse of the people

Digital Diplomacy



Digital diplomacy refers to the impact of digital technology on diplomacy in three realms:

- Changing digital geopolitical and geo-economic environment for diplomatic activities (sovereignty, power redistribution, interdependence)
- Emerging digital TOPICS on diplomatic agenda (e.g., cybersecurity, e-commerce, privacy protection, and
- ➤ New TOOLS for diplomatic activates (e.g., social media, big data, AI).

Digital Diplomacy Goals



"Huh. So Iran just friended us on Facebook ... Like, do I accept?"

Goals of Digital Diplomacy

- Public Diplomacy
- ➤ Knowledge Management
- > Information Management
- > Consular communication & Response
- ➤ Disaster Response
- > Rescue Operations
- > Internet Freedom
- Policy Planning
- > External Resource

Types of Cyber Attack



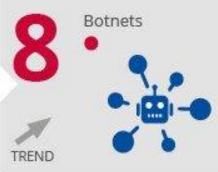


Phishing







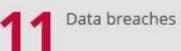








KILL CHAIN











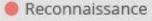


Exploit kits









TREND













Global Cybercrime Damage Costs:

- \$6 Trillion USD a Year. *
- \$500 Billion a Month.
- \$115.4 Billion a Week.
- \$16.4 Billion a Day.
- \$684.9 Million an Hour.
- \$11.4 Million a Minute.
- \$190,000 a Second.





Online Fraud Trends

10. Fake Invoices

Finally, fake invoice scams plagued Canadians last year. You might have online accounts to many sites that charge money for certain services, like Amazon, UPS, Canada Post, or iTunes. You might get realistic-looking invoices via email from sites like these.



1.Online Purchases

"From fake websites to counterfeit goods to free trial traps and more, online purchase scams are everywhere," said the BBB. You can watch out for these scams by shopping on reputable websites, reading all terms and conditions, and being wary of "too good to be true" offers.

2. Wire Fraud/Spearphishing.

More than \$20 million was lost to wire fraud, through wire and email transfers.

*Canadian businesses lose millions every year

"Canadian businesses lose millions every year to those posing as CEOs who redirect company money through wire and email transfers."

9. Shady Contractors

"Yes, this is still a problem," says the BBB. "Contractors without a conscience who take your deposit and disappear."

More than \$3 million was lost to shady contractors last year.

8. Advance Fee Loans

More than \$1.5 million was lost to these last year, where shady lenders guarantee you'll get a loan, asking for upfront payment as security.

The BBB suggests that if you're approved for a loan and they request money as security, walk away, always research reputable lenders, and a guarantee of a loan before a credit check is suspicious.



Cyber Frauds in 2022



4

3. Romance Scams

More than \$19 million was lost to catphishers last year. The BBB advises you never send money to someone you've never met, always meet in person, and don't give out personal information like your email and phone number.

7. Miracle Weight Loss Scams

Losing weight is a popular goal, but the best way to get there is through diet and exercise! According to the BBB, if a fat-burning product looks too good to be true, it probably is .



6. Income Tax Scams

Ah, the classic and widespread CRA scam. Threatening phone calls from the "CRA" plague people across the country. The BBB advises that the CRA doesn't make threatening phone calls, won't solicit information via email or phone, and Canadian government agencies don't accept payment in Bitcoin.

Over \$5 million was lost to income tax scams last year.



5. Cryptocurrency Scams

"Cryptocurrencies are speculative, high-risk investments that are mostly unregulated. As they have captured the attention of investors, so too have fraudsters taken notice."

More than \$1.7 million was lost to these in 2017. The BBB says there's an elevated risk of fraud and manipulation here, and some offerings might not comply with securities laws.



This one was the number one scam in 2016, but in 2017, more than \$5 million was lost to these scams. Employment scams target Canadians through reputable employment websites. According to the BBB, you should keep in mind that if you didn't apply for a job, you didn't get hired, a legitimate company wouldn't ask you to wire money as a "test",



Social Media Intelligence

Introduction/ Social Media Intelligence Cycle

TARGETS

- What problems do we have?
- What information do we need?
- What departments should be included?

ENGAGEMENT

- Speak to your customers
- Drive new business
- Encourage repeat sales

Social Media Intelligence Cycle

TOOL SELECTION

- Finding a suitable Monitoring tool
- How broad is their coverage?
- How deep can you dive into the data?
- What metrics can they analyse?
- What additional services (support) do they offer?

ANALYSIS

- Analysis of the results
- Recommendations and action plans
- Performance measurement & optimisations

FILTERING

- Structuring the data
- Filters: channels, topics, authors, countries, time, sentiment etc.

GATHERING DATA

- Creating queries for brand / product / topics /market
- Gathering relevant data

Social Media Analysis

SENTIMENT ANALYSIS

Sentiment analysis refers to the class of computational and natural language processing study of people's opinions, appraisals, and emotions toward events, institutions or other subject matter in order to extract subjective information, such as opinions, expressed in a given piece of text.

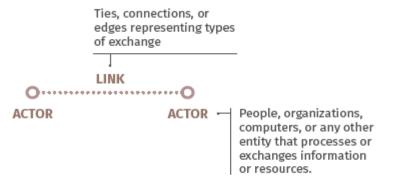
Positive Negative Neutral

CATEGORIES

- Document Level Analysis
- Sentence Level Analysis
- Aspect Based Analysis
- Comparative Analysis

SOCIAL NETWORK ANALYSIS

Social network analysis is a technique used to map and measure social relations. They are used in investigative tools to discover, analyze, and visualize the social networks of criminal suspects.



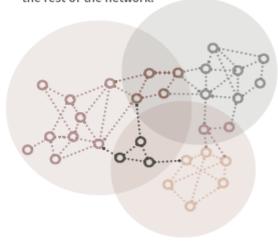
Centrality Analysis

Centrality analysis aims at determining more important actors of a social network so as to understand their prestige, importance, or influence in a network.



Community Detection Methods

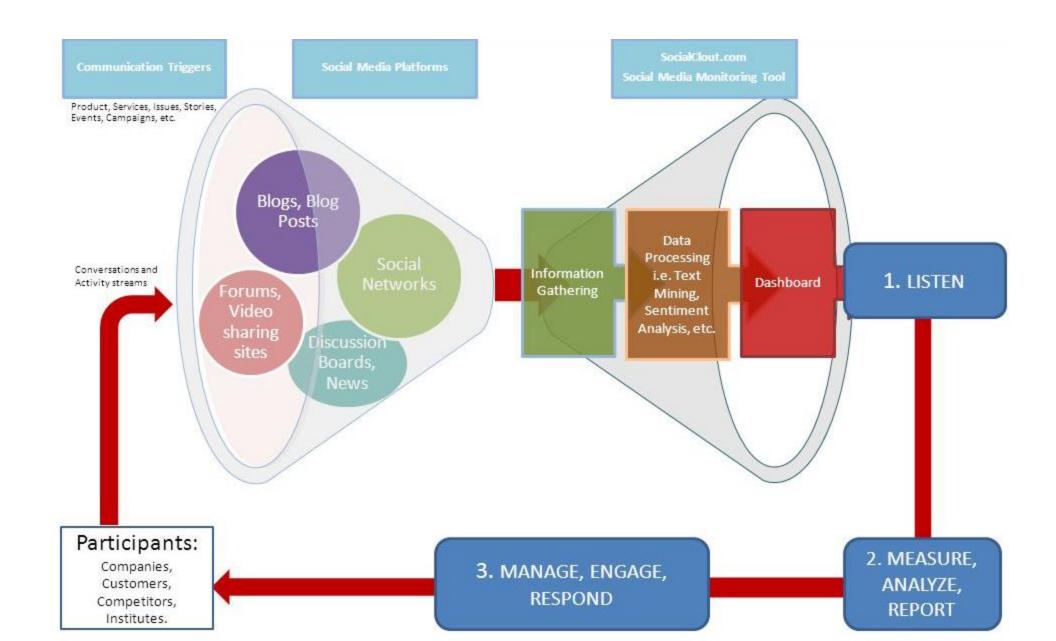
Community detection methods identify groups of actors that are more densely connected among each other than with the rest of the network.



OSNIT Framework

Username O Email Address O Domain Name	Geolocation Host / Port Discovery IPv4 IPv6 BGP Reputation Blacklists		Shodan Mr. Looquer Scans.io ZoomEye Nmap (T) Internet Census 2012 Internet Census Search urlscan.io Scanless	
IP Address O	Neighbor Domains Protected by Cloud Services			
Images / Videos / Docs	Wireless Network Info	8	WiGLE: Wireless Network Mapping	
Social Networks		O	OpenCellid: Database of Cell Towers	
Instant Messaging		0	Wireshark	
	Network Analysis Tools	0	NetworkMiner	
People Search Engines	IP Loggers		Packet Total	
Dating ()	ir Loggers	0	NetworkTotal	
Telephone Numbers			RecruitEm	
6////	Annual Reports	ŏ	LinkedIn	
Public Records (1)	General Info & News		Market Visual	
Business Records O	Company Profiles	8	Jobster	
	Employee Profiles & Resumes	X	XING	
Geolocation Tools / Maps	Additional Resources		Indeed	
Search Engines Search Engines Forums / Blogs / IRC OSINT Framework	Additional Nesources	8	IntelTechniques Resume Search CVGadget LeadFerret.com	
Language Translation				
Metadata ()	General Info		OnionScan	
Mobile Emulation	Clients	0	Tor Scan	
Terrorism	Discovery	0	Onioff	
		0	Hunchly Hidden Services Report	
Dark Web O	TOR Search	0	docker-onion-nmap (T)	
Digital Currency	TOR Directories	Turant	Onion Investigator	
Digital Currency	8	Tor2web	× 10 1 10 10 10 10 10 10 10 10 10 10 10 1	
Classifieds		IACA Dark Web Investigation Sup	https://openphish.com/feed.txt	
	Phishing O		PhishTank	
Encoding / Decoding (IOC Tools		PhishStats	
Tools	TTPs		FilistiStats	
		IBM X-Force Exchange		
Malicious File Analysis	2	Malware Information Sharing Plat	form	
Exploits & Advisories	8	Malware Patrol Project Honey Pot		
Threat Intelligence	0	Cymon Open Threat Intelligence		
OpSec	0) mlsecproject / combine		
	0	hostintel - keithjjones Github		
Documentation Q		massive-octo-spice - csirtgadget	s Github	
Training (Bot Scout		
		Blueliv Threat Exchange (R)		
	O	APTnotes		
	O	HoneyDB		
	Ö	Pulsedive		

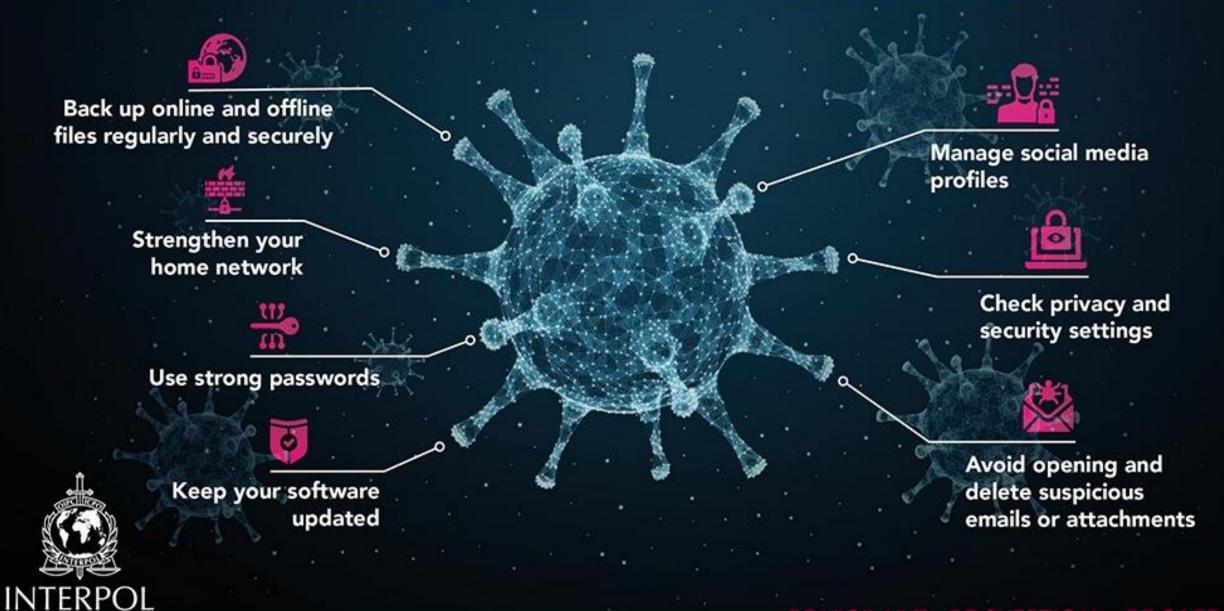
Social Media Monitoring



Social Media Listening

Reactive Monitor Social Strategic Social Social Media Listening Listening Intelligence Alerts **Google Alerts** Monitor 'owned' Listen to brand Listen and Insights to social conversations engage with a inform or Periodic checkrecalibrate embassies. purpose **SCOPE** ins on social Follow marketing or channels Monitor social competitors & **Enterprise** business for 'bad' news industry trends listening strategy strategy **REACTIVE PROACTIVE STANCE INSIGHTS BIG DATA DATA TOOLS MULTIPLE FREE PAID TOOLS** TOOLS TOOLS

CYBER SAFETY CHECKLIST



How to Report Cyber Crime

भारत सरकार GOVERNMENT OF INDIA गृह मंत्रालय MINISTRY OF HOME AFFAIRS www.cybercrime.gov.in





राष्ट्रीय साइबर अपराध रिपोर्टिंग पोर्टल

National Cyber Crime Reporting Portal



Indian Cyber Crime Coordination Cent

urces Section"

REPORT WOMEN/CHILD RELATED CRIME +

REPORT OTHER CYBER CRIME

TRACK YOUR COMPLAINT

CYBER VOLUNTEERS +

RESOURCES +

CONTACT US

HELPLINE



HELPLINE NUMBER

1930







If you are a victim of Financial Cyber Fraud

Dial Helpline Number 1930









Advantages of e-Governance



Cybersecurity Threats



Vulnerabilities in the source code



Misconfigured system components



Trust configurations



Weak credentialing practices



Lack of strong encryption



Insider threat



Psychological vulnerability



Inadequate authentication



Injection flaws



Sensitive data exposure



Insufficient monitoring and logs



Shared tenancy vulnerabilities

OWASP Top 10 Vulnerabilities

2021 OWASP Top 10

A01 Broken Access Control

A02 Cryptographic Failures

A03 Injection

A04 Insecure Design

A05 Security Misconfiguration

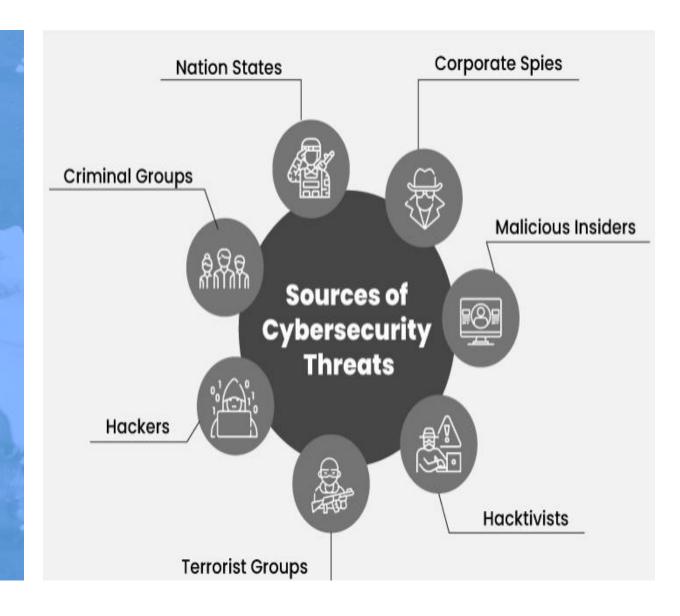
A06 Vulnerable and Outdated Components

A07 Identification and Authentication Failures

A08 Software and Data Integrity Failures

A09 Security Logging and Monitoring Failures

A10 Server-Side Request Forgery (SSRF)

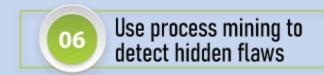




BEST WAYS TO IDENTIFY A SECURITY VULNERABILITY









O2 Analyze system log data



O7 Review the source code



Use a penetration tester or white-hat hacker



O8 Audit the IT supply chain



Leverage a threat intelligence database

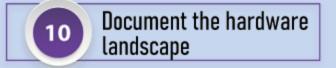


Automate the security testing process



Simulate a social engineering attack

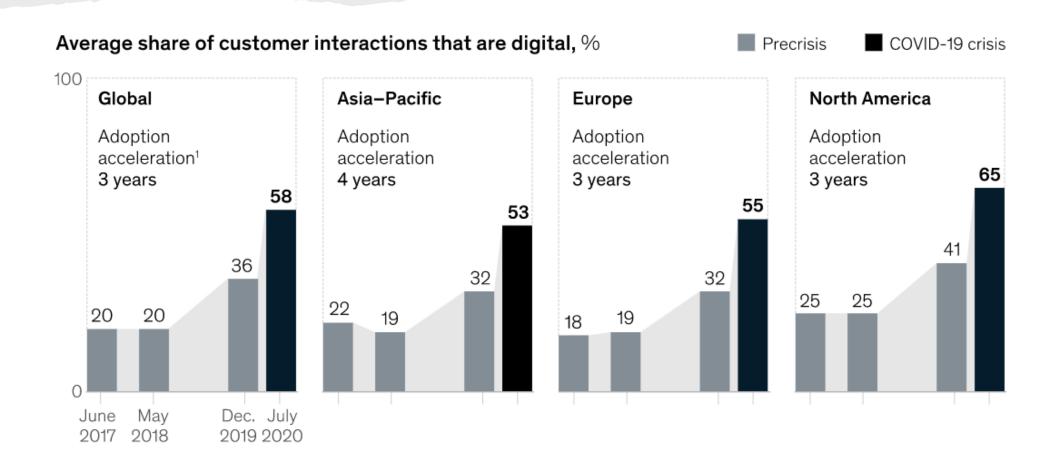








Digitization Adoption Rate





RECENT DATA BREACHES

2.5 mn

Airtel: Name, DoB, phone numbers, address, Aadhaar. Up for sale for bitcoins worth \$3,500 3.5 mn

MobiKwik: KYCinfo 20.0 mn

BigBasket: Personal information, address, PIN, IP addresses, etc for sale for \$40,000

22.0 mn

Unacademy: User name, password, and email

35.0 mn

Juspay: Masked card data & card fingerprint data was for sale for \$5,000 Bitcoins

Source: News reports

Fraud Types



CUSTOMER FRAUD

Targeting Individuals through bogus telemarketing emails, Ponzi schemes

ASSET MISAPPROPRIATION

Skimming of cash & cash larceny & misuse of company assets



INSURANCE & BANKING FRAUD

Bogus health insurance claims, business insurance claims & fraudulent bankruptcy

TYPES

OF FRAUD



STATEMENT FRAUD

Overstating revenue, earnings, and assets along with Understating Liabilities



INTELLECTUAL PROPERTY THEFT

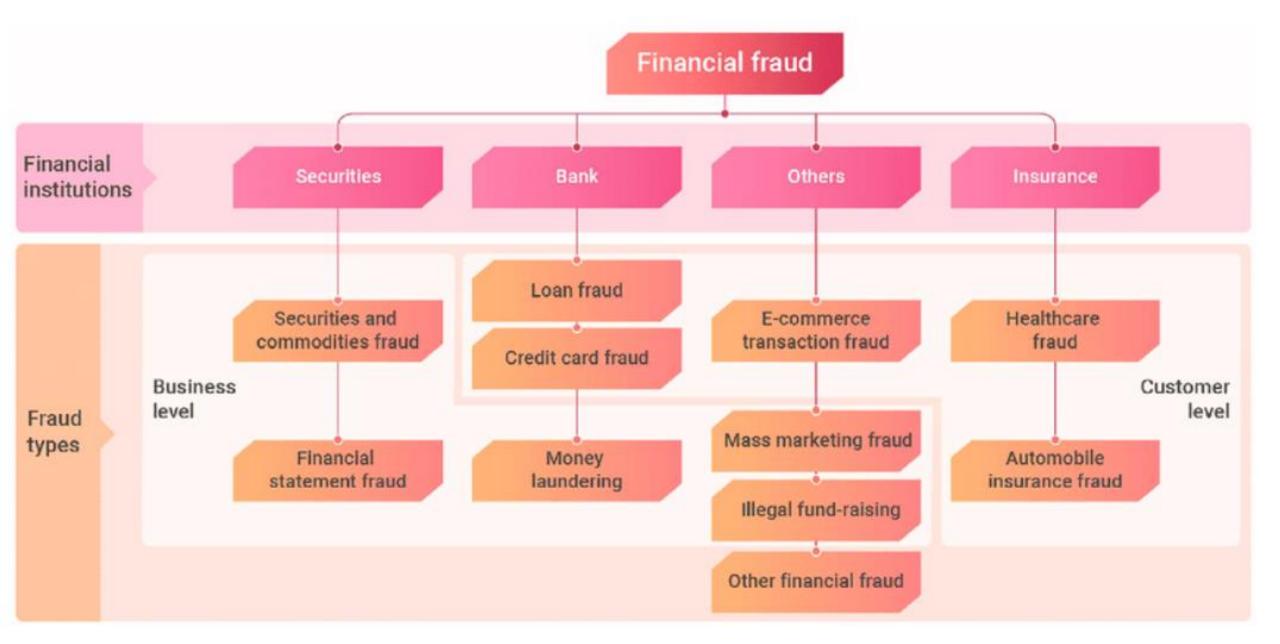
Theft of intellectual property and trade secrets



CORRUPTION

Includes bribery, extortion, intimidation, kickbacks, theft, etc.

Fraud Classification



Banking Frauds



Cybercrime stats 2022

More than

90%

of **small and midsize enterprises** reported a cyber-attack that had a severe impact on their business.

By 2023, the **DDoS** attack number will rise to:

15.4
million

IOT gadgets get around:

52K

attack every month

Key Challenges in detecting Financial Fraud

Extremely high false positives



Fraud Detection Methods







HUNTMETRICS

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