

# CYBER security updates

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## 1. CYBERSECURITY

- RBI's 6 commandments -- self reading for this
- Cert IN— 572% jump in cybercrime in 3 years
- AIIMS server attacked
- Computer literacy in India (NSS survey) — 24% in people above 15 years of age (rural is 18% vs urban is 39%)

Surveillance laws in India

Indian Telegraph Act 1885---allows interception by govt

Section 69 of IT Act 2000--allows electronic surveillance

Judgements

Puttaswamy-- proportionality in usage

People Union of Civil liberties vs UOI 1997---telephonic conversations under right to privacy

SC forms Justice Raveendran Committee to examine Pegasus allegations case

Way forward

- Integrated cyber security command
- Strengthen existing framework like CERT— partner with countries like Estonia
- Cyber resilience— prepare, respond & recover from disruption
- Reduce dependence on foreign servers — build dedicated secured gateway for all govt communication — Maya OS to replace Microsoft in defence ministry
- Cyber forensic labs in states
- Awareness generation
- Rajesh Pant committee,— 0.25-1% of the Union budget for cyber security
- Sanchaar Sathi portal

### DEEP FAKES

What?

Synthetic media---media (audio, video, images ) that is manipulated or either generated by AI

Benefits

Education

Criminal forensic

Artistic expression

Voice cloning initiative—to restore voice who lost it due to diseases

Used in mass media & entertainment

Challenges

- Fabrication--show real people saying and doing things they never did— wrestlers morphed photo
- Propaganda
- Mis trust-- in institutions & diplomacy
- Tarnish reputations -- pornography + privacy
- No legislation---Existing laws inadequate
- National security - could be used by insurgents to stir anti state sentiment
- Lack of skilled cybersecurity personnel — supply has exceeded demand

Best practices

China— banned deepfaked visuals, creators can't modify original material

Way forward

- Regulations
  - AI-based automated tools for detection
  - Blockchains-- digitally sign and affirm the validity of a video or document.
  - Awareness--Educating media users about the capabilities of AI algorithms
  - Laws to regulate & punish bad-faith actors — Digital India Bill to replace IT Act
  - collaborative, multi-stakeholder response
- Ex--Cyber Crime Volunteers programme---citizens flag unlawful content --concept of 'lateral surveillance'

Be part of tackling the infodemic

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Latest developments

- RBI forms working group on digital lending including online platforms and mobile apps
- [content](#)
- RBI bans Mastercard from issuing new cards---non- compliance of data localisation norms of RBI  
Why?--customer privacy, national security
- Ransomware-as-a-service (RaaS)--new biz model
- Akira ransom ware

Cyber attacks---'Solarwinds', 'Colonial Pipeline'

Targets--civilians (Air India. Mobikwik), healthcare systems

## CRITICAL INFRA

Those essential physical and information technology facilities, networks, services and assets, which, if disrupted or destroyed, would have a serious impact on effective functioning of govt.

Ex--Chemicals, Dams, power, banking & financial services etc