# Sovereign AI on the rise as nations move to reduce dependence on global superpowers

As the U.S. and China compete for AI dominance, other countries, including India, are pursuing Sovereign AI to stay secure and competitive.

- ➤ Sovereign Al is a nation's capacity to produce artificial intelligence using its own infrastructure, data, and workforce. Why are countries pursuing sovereign Al?
- ▶ Economic Advantage: All is projected to generate trillions of dollars in economic dividends and productivity gains, currently benefitting Global North at the expense of Global South.
- **Strategic Autonomy:** All is becoming a pillar of **economic and military power**. Countries don't want to be dependent on the US or China for foundational All models and computing power.
- Data Sovereignty: To ensure critical data (citizens' data, defense, infrastructure, healthcare) stays within national control and is not processed by foreign tech giants. E.g. US based models such as ChatGPT, Grok, etc.
- Cultural Preservation: Sovereign foundation models, such as Large Language models (LLMs), can be trained on local datasets (e.g. dialects, societal practices) to promote inclusiveness and revitalize indigenous languages.

### What are the challenges for India?

- ➤ Foreign dependency: For technology, components and infrastructure. E.g. silicon chips.
- Funding: To setup large Al factories, a huge sum of money is required both from private and public sector at the initial stage.
- Skilled workforce: India lacks the high-skilled manpower required for manufacturing advance chips and AI LLM development.

### BharatGen: India's Sovereign Al Initiative

- About: It is India's first sovereign, multilingual, and multimodal LLM.
- Developed by: Department of Science and Technology (DST) under the National Mission on Interdisciplinary Cyber-Physical Systems (NM-ICPS) in 2025.
- Goal: It aims to create a complete AI stack (integrating text, speech, and document vision) for India in 22 Indian languages, capable of supporting sectors like governance, industry, education, agriculture, healthcare, and digital inclusion.
- Key Applications include:
  - **⊙** Krishi Sathi: A voice-enabled WhatsApp advisory tool for farmers.
  - e-VikrAI: It generates product descriptions from a single image, assisting small sellers in expanding their digital presence.

# Digital Sequence Information is one of the main issues under Treaty on Plant Genetic Resources

UN Special Rapporteur on the right to food cautioned that Digital Sequence Information (DSI) could fundamentally undermine the mandate of the International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA). About ITPGRFA

- ITPGRFA, adopted in 2001 and enforced since 2004, is a legally binding agreement under the Food and Agriculture Organization (FAO).
- ▶ It aims to ensure the conservation and sustainable use of all plant genetic resources for food and agriculture and fair and equitable sharing of benefits arising out of their use.
- India is a contracting party to the treaty.
- Treaty's governing body meets every two years.

# Digital Sequence Information (DSI)

- DSI on genetic resources is a placeholder term in the discussions under the 1992 Conventions on Biological Diversity.
  - ⊕ However, there is no consensus on its exact definition under CBD.
- ▶ Generally, DSI refers to digital storage of genetic data derived from DNA, RNA, proteins or other biological sequences.
  - DSI is a tool for scientific research used by the public and private sectors, supporting sustainable development.
- ➤ Cali Fund for DSI: A global benefit-sharing mechanism was created at CBD COP-16 to ensure that profits from the use of DSI are shared fairly, supporting biodiversity conservation, capacity-building, and indigenous communities.

### Significance of DSI

- Food and Nutritional Security: Enables faster, more targeted development of climate-resilient and disease-resistant crop varieties.
- Preservation of Agrobiodiversity: Complements physical gene banks with digital repositories, safeguarding valuable genetic traits.
- Global Scientific Cooperation: Digital access democratises breeding research and enhances innovation in developing countries.

### Challenges in DSI Governance

- Unclear Definition: There is no global consensus on what constitutes DSI, creating ambiguity in regulation.
- Digital Biopiracy: DSI can be exploited without consent or disclosure.
- Weaken Farmers' Control: DSI risks marginalising farmers and indigenous communities who are traditional custodians of genetic knowledge.







# Emerging use of Artificial Intelligence is fuelling infringement of personality rights

Recently, actors Abhishek Bachchan and Aishwarya Rai Bachchan filed a lawsuit alleging that AI-generated videos portray them in fictitious scenarios, infringing upon their personality rights.

### **Personality Rights**

- Personality rights encompass an individual's exclusive control over the commercial use of their identity, including their name, image, voice, behaviour, and other unique attributes of their persona.
- In India, personality rights are not defined by a specific statute but are protected through common law, Article 21 (Right to Privacy), and various intellectual property laws.
  - Information Technology Act, 2000, and the 2024 IT Intermediary Guidelines address impersonation and deepfakes.
  - ⊕ The Copyright Act, 1957, grants performers exclusive rights, allowing them to control how their performances are reproduced and to object to any distortion or misuse.
  - Trade Marks Act, 1999, permits individuals, particularly celebrities, to register distinctive attributes of their persona, such as names, signatures, or even catchphrases, as trademarks.
  - Supreme Court in several cases highlighted AI infringements as breach of right to privacy or intellectual property rights.
    - In Anil Kapoor Case (2023), court banned reproduction of Mr. Kapoor's identity while in Arijit Singh Case (2024), court protected Mr. Singh's voice from Al replication.

Al and Personality Rights

- Social Concerns: Deepfakes, Al-generated content that swap faces or voices, propagate misinformation, enable extortion, and erode public trust.
- ➤ Commodification of Human Identity: Al can create celebrity likeness for endorsements, films and advertising, and raise questions about posthumous personality rights.
- Data Misuse: Al scraping collects personal photos, social media data, and digital footprints to train models, often without authorization.
- Liability Issues: There are issues in holding creators and distributors of deepfakes accountable due to associated anonymity.

Australia to become first country to ban social media for children under 16 years

From **December 10, 2025**, social media companies such as **Facebook**, **Instagram**, **YouTube**, **etc**. can be fined up to **AUD 50 million** for failing to remove such accounts from their platforms.

What are the concerns regarding social media usage in children?

- Mental Health: Children addicted to social media often show increased rates of anxiety, depression, and low selfesteem.
- Physical Health: Exposure to certain content promotes sedentary behavior, eating disorders and unattainable beauty ideals leading to issues like disrupted sleep patterns, obesity etc.
- Social development: Constant use of the virtual platforms reduces face-to-face interactions leading to social isolation, strained family relations and inability in emotional regulation.
- Online safety concerns: Social media makes children susceptible to cyberbullying, harmful content, and online sexual predators.



- Limit development of digital skills: Limits positive impacts of using social media such as creative expression, collaborative learning via educational content, interest-based networking, etc.
- May push children to unsafe places on the Internet E.g. Dark Web.



Alternative approaches to tackle social media addiction in children

- ➤ Restricted usage: E.g. allowing access to educational and creative learning streams.
- ➤ Children-focused platforms: E.g. Instagram Teen accounts with built-in protections.
- Adopting Best Practices: E.g. Digital De-Addiction (D-DAD) centres of Kerala police provide free counselling to kids with digital addiction.







### Supreme Court reprimands government over non-compliance with CCTV directive in police stations

The directives were issued in Paramvir Singh Saini v. Baljit Singh Case, 2020 to install CCTVs in the premises of lawenforcement agencies including NIA, CBI, and police stations to prevent custodial torture.

▶ Under the judgement, the Court had mandated the constitution of Oversight Committees at the State and District levels along the lines of a 2018 Central Oversight Body (COB) at the Union level.

Safeguards related to custodial torture in India

- > Constitutional:
  - Article 14 Right to equality before law
- ▶ NHRC's Guidelines on Custodial deaths (1993): It calls for reporting of custodial death or rape within 24 hrs of occurrence.
- Previous SC Judgements:
  - D.K. Basu vs. State of West Bengal (1997): Provided specific quidelines for safeguarding of detainees and procedure for arrest.
  - Prakash Singh vs. Union of India (2006): Ordered the setting up of a Police Complaints Authority in each state to look into complaints against officers of and above the rank of SP in cases related to custodial death.
  - Shafhi Mohammad v. State of Himachal Pradesh (2018): Directed the Ministry of Home Affairs to set up a Central Oversight Body (COB) to implement videography in crime scenes.

#### Also In News



# **Constitution Day**

Constitution Day is **celebrated every year (since 2015) on November 26** to commemorate the adoption of the Constitution of India on **26 November 1949**.

Constitution became effective on 26 January 1950, observed as Republic Day.

What makes Indian Constitution so resilient?

- Rights:
  - Group-differentiated and affirmative rights to address historical inequalities e.g., reservations.
  - Proactive equality measures like Articles 15(2),
    17, and 23 that curb discrimination from both state and private actors.
- ▶ Independent Institutions: E.g. Supreme Court, Election Commission, CAG, etc. to keep check on powers of Legislature and Executive.
- ➤ Constant Evolution: E.g. one-third reservation to women in legislature (106<sup>th</sup> Amendment).



# **Exercise in News (Ex-SURYAKIRAN)**

India - Nepal Joint Exercise Surya Kiran XIX – 2025 will be held from 25 November to 08 December 2025 at Pithoragarh, Uttarakhand.

#### **About Exercise Surya Kiran**

- ▶ It is a joint military exercise between the Indian Army and the Nepal Army being held since 2011.
- Objective: to jointly train for Sub-Conventional Operations focusing on Counter-Terrorism, Jungle Warfare, Mountain Warfare, Humanitarian Assistance and Disaster Relief (HADR), etc.



### **Operation Pawan**

Status of Custodial deaths in India

a year (as of 2023).

ratified it.

SC's Centre for Research and Planning data show 1,754 custodial deaths in prisons in

⊕ 1,237 enquiries into custodial deaths

India has signed the UN Convention Against

Torture (UNCAT) in 1997, but it has not yet

remained pending in district courts for over

Chief of the Army Staff (COAS) paid homage to martyrs of Operation Pawan for the first time.

#### **About Operation Pawan**

- It was launched in 1987 by the Indian Peace Keeping Force (IPKF) after the Indo-Sri Lanka Accord in 1987.
- Purpose: To disarm militant groups, particularly the Liberation Tigers of Tamil Eelam (LTTE) in Sri Lanka.



#### **Mule Accounts**

There is a rise in hotspots where mule accounts are being used to undertake cyber frauds. E.g. Jamtara (Jharkhand), Nuh (Haryana).

Around 8.5 Lakh Mule Accounts in more than 700 Branches were detected under Operation Chakra-V of the CBI to crack down cyber frauds.

#### **About Mule Accounts**

- They are bank accounts used by criminals for laundering illicit funds with/without the knowledge of the account holder.
- Mule accounts mask the identity and origin of illegally obtained money, making it difficult for authorities to trace the actual source of funds.
- RBI developed MuleHunter.AI, an AI-based mule account detection tool for real-time monitoring.









### Ozone

NOAA and NASA have ranked the ozone hole in 2025 over Antarctica as the fifth smallest since 1992.

#### **About Ozone**

- ➤ The ozone layer shields life from harmful ultraviolet (UV) radiation from the Sun.
- ➤ Location: Stratosphere (between 15 and 35 kilometers above the Earth's surface).
- Ozone depletion process starts when human-made compounds containing chlorine and bromine rise high into the stratosphere.
  - Reduced ozone allows more UV rays to reach the surface, resulting in crop damage, increased cases of skin cancer and cataracts etc.
- As part of 1987 Montreal Protocol, countries agreed to replace ozone-depleting substances with less harmful alternatives.



#### **ON Court**



# Nayi Chetna 4.0

Union Minister launches Nayi Chetna 4.0 - National Campaign on Gender Equality and Women Empowerment. **About Nayi Chetna 4.0** 

- It is a month-long campaign by Ministry of Rural Development under Deendayal Antyodaya Yojana -National Rural Livelihoods Mission (DAY-NRLM).
  - Involves SHG participation and convergence of 11 Ministries.
- ➤ Aim: To strengthen community action against genderbased violence and promote women's safety, dignity, and economic empowerment across rural India.
- Focus areas:
  - ⊕ Enabling safe mobility.
  - Recognising women as key economic contributors.
  - Addressing unpaid care work through shared community responsibility.
  - Enhance women's access to assets, credit, skills, and markets to expand entrepreneurship and livelihood opportunities.

A year has passed since the country's first 24x7 open and networked (ON) court was set up in Kerala's Kollam district by the High Court of Kerala.

#### **About ON Court**

- The ON Court allows cases to be filed at any time of the day.
- The ON Court functions entirely online, allowing e-filing, digital document verification, SMS/email summons, virtual hearings, and real-time updates for lawyers and litigants.
- **Significance:** Compared to physical courts where such cases take years, the ON Court disposes cases in about 140 days, improving efficiency, reducing paperwork, and enhancing access to justice.

### **Place in News**



### **About Dr. Verghese Kurien (1921-2012)**

Birth anniversary of Dr. Verghese Kurien is celebrated on November 26 as the National Milk Day.

About Dr. Verghese Kurien (1921-2012) He was born in 1921 in Kozhikode (Kerala).

- ➤ He was the architect of India's White Revolution (Operation Flood), which helped India emerge as the largest milk producer in the world.
- ➤ He acted as the Founder Chairman of National Dairy Development Board (NDDB), Gujarat Co-operative Milk Marketing Federation Ltd. And Institute of Rural Management (IRMA) at Anand.
- ➤ He also revolutionized the edible oil business by introducing 'Dhara' in 1979.
- ➤ Awards: Ramon Magsaysay Award for Community Leadership (1963), World Food Prize (1989), Padma Vibhushan (1999) etc.





























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