

EU artificial intelligence act

Why regulate artificial intelligence?

- As artificial intelligence technologies become omnipresent and their algorithms more advanced capable of performing a wide variety of tasks including voice assistance, recommending music, driving cars, detecting cancer, and even deciding whether you get shortlisted for a job the risks and uncertainties associated with them have also ballooned.
- European Parliament reached a preliminary deal this week on a new draft of the European Union's ambitious Artificial Intelligence Act,

What does the draft document entail?

- The draft of the AI Act broadly defines AI as “software that is developed with one or more of the techniques that can, for a given set of human-defined objectives, generate outputs such as content, predictions, recommendations, or decisions influencing the environments they interact with”.
- It identifies AI tools based on machine learning and deep learning, knowledge as well as logic-based and statistical approaches.

- The Act's central approach is the classification of AI tech based on the level of risk they pose to the “health and safety or fundamental rights” of a person.
- There are four risk categories in the Act unacceptable, high, limited, and minimal.
- The Act prohibits using technologies in the unacceptable risk category with little exception. These include the use of real-time facial and biometric identification systems in public spaces; systems of social scoring of citizens by governments leading to “unjustified and disproportionate detrimental treatment”; subliminal techniques to distort a person's behavior; and technologies that can exploit vulnerabilities of the young or elderly, or persons with disabilities.
- AI is used in healthcare, education, employment (recruitment), law enforcement, justice delivery systems, and tools that provide access to essential private and public services (including access to financial services such as loan approval systems).
- The Act envisages establishing a EU-wide database of high-risk AI systems and setting parameters so that future technologies or those

under development can be included if they meet the high-risk criteria.

- Before high-risk AI systems can make it to the market, they will be subject to strict reviews known in the Act as ‘conformity assessments’ algorithmic impact assessments to analyze data sets fed to AI tools, biases, how users interact with the system, and the overall design and monitoring of system outputs.
- Lawmakers now target the use of copyrighted material by companies deploying generative AI tools such as OpenAI’s ChatGPT or image generator Midjourney, as these tools train themselves from large sets of text and visual data on the internet. They will have to disclose any copyrighted material used to develop their system.



- General-purpose artificial intelligence systems (GPAIS).
- Artificial general intelligence (AGI) is a type of hypothetical intelligent agent.

- The AGI concept is that it can learn to accomplish any intellectual task that human beings or other animals can perform.
- Alternatively, AGI has been defined as an autonomous system that surpasses human capabilities in the majority of economically valuable tasks.

THE HINDU

Coast Guard harbour

- Defence Minister Rajnath Singh and his Maldivian counterpart, Mariya Didi, on Wednesday, laid the foundation stone for the Maldives National Defence Forces Coast Guard ‘Ekatha Harbour’.
- The development of the Coast Guard Harbour and repair facility at Sifavaru is one of the biggest grant-in-aid projects in India.
- The handing over of these vessels is in line with India’s vision of Security and Growth for All in the Region (SAGAR) which seeks to work together with and jointly develop the capabilities of friends and partners for a safe, secure, prosperous, and stable Indian Ocean Region.



THE HINDU

Why cyclone in Bay of Bengal?

- The Bay of Bengal has seen nearly five times the number of tropical cyclones than the Arabian Sea in the post-monsoon period.
- The higher frequency of cyclones in the Bay can be attributed to frequent low pressures created by the warm water of the ocean.
- The Bay is concave or shallow where strong winds push water up, helping in the formation of storm systems.
- The Bay of Bengal is shaped like a trough takes it more conducive for storms to gain force. Moreover, the high sea surface temperature makes matters worse,
- The Bay gets more rainfall with sluggish winds and warm air currents around it that keep temperatures relatively high all year.
- .Lack of landmass between the Pacific Ocean and the Bay causes cyclonic winds to move into the coastal areas causing heavy rainfall.

- The absence of air movements from north-western India towards the Bay in the post-monsoon phase is also another reason for the chances of cyclones in the Bay of Bengal.
- The constant inflow of fresh warm water from perennial rivers like the Brahmaputra and the Ganges makes it further impossible to mix with the cooler water below.
- The threshold value for sea surface temperatures for the formation of cyclones is 28°C, but it is 30°C-32°C over the Bay of Bengal, Arabian Sea, and Indian Ocean. The sea surface temperature of the Bay is higher than the Arabian Sea.
- Based on long-period records, more than 60% of Bay cyclones make landfall in various parts of the Indian east coast.

THE HINDU

NOTTO

- National Organ and Tissue Transplant Organization (NOTTO) is a National level organization set up under the Directorate General of Health Services, Ministry of Health and Family Welfare, Government of India located on the 4th and 5th Floor of the Institute of Pathology (ICMR) Building in Safdarjung Hospital New Delhi. It has the following two divisions:

- "National Human Organ and Tissue Removal and Storage Network"

"National Biomaterial Centre".

- This has been mandated as per the Transplantation of Human Organs (Amendment) Act 2011.
- The network will be established initially for Delhi and gradually expanded to include other States and Regions of the country.
- Thus, this division of the NOTTO is the nodal networking agency for Delhi and shall network for the Procurement Allocation and Distribution of Organs and Tissues in Delhi.
- The National Network division of NOTTO would function as the apex center for All India activities of coordination and networking for procurement and distribution of Organs and Tissues and registry of Organs and Tissues Donation and Transplantation in the country.
- The following activities would be undertaken to facilitate Organ Transplantation in the safest way in the shortest possible time and to collect data to develop and publish the National registry.

THE HINDU

H5N1

- Housing one of the largest livestock reserves across the world, India is at "risk and vulnerable" to the ongoing outbreaks of avian influenza (H5N1) worldwide, a worry compounded by the threat of mammalian transmission, officials have said.
- "Across the world, the virus is being detected among wild birds and other species, which makes the chance of it mutating and becoming harmful greater,"
- H5N1, a highly pathogenic subtype of avian influenza,



THE HINDU

Climate change adaptation

- The cumulative total expenditure for adapting to climate change in India is estimated to reach ₹85.6 lakh crore (at 2011-12 prices) by 2030, the Reserve Bank of India (RBI).
- India's goal of achieving the net zero target by 2070 would require an accelerated reduction in the energy intensity of GDP by about 5%

annually and a significant improvement in its energy mix in favor of renewables to about 80% by 2070-71

- India's green financing requirement is estimated to be at least 2.5% of GDP annually till 2030 to address the infrastructure gap caused by climate events, and the financial system may have to mobilize adequate resources and also reallocate current resources to contribute effectively to the country's net-zero targets.

THE HINDU

GES
REPORTER

