

Editorial of the Day – 30.12.2025

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1. Principal Scientific Advisor's white paper says open access to AI infra key in India (TH)

General Studies 3– Science & Technology

Topic– Awareness in the fields of IT, Space, Computers, Robotics.

Introduction

India's current strategy regarding Artificial Intelligence (AI) is characterized by a "piecemeal" regulatory approach. Instead of enacting a unified, dedicated AI safety law, the country relies on a patchwork of existing legislations like the IT Act and data protection norms. While this method prevents excessive state surveillance, it creates significant vulnerability regarding consumer protection, particularly concerning the psychological impacts of AI. To remain globally competitive, India must now strike a delicate balance between fostering innovation, building domestic infrastructure, and enforcing responsible governance.

India's Current AI Regulatory Approach

Reliance on Existing Laws– Regulation is currently enforced through due diligence requirements under the Information Technology (IT) Act and its associated Rules, alongside financial and data protection regulations.

Fragmented Framework– The absence of a dedicated AI safety framework means that regulation is reactive and scattered across different domains rather than holistic.

The "Duty of Care" Gap– The current legal structure manages adjacent risks (like data theft) but fails to establish a clear state duty of care for AI consumer safety.

Psychological Harm– There is a notable lack of protection against psychological dependence or harm caused by interactive AI, a growing concern globally.

Comparative Global Developments (China vs. India)

China's "Intrusive" Safety Model– China has drafted rules specifically targeting emotionally interactive AI services. Mandates include warnings against excessive use and direct intervention if a user exhibits "extreme emotional states."

Risk– While protective, this incentivizes deeper surveillance of user behaviour to detect these emotional states.

India's "Less Intrusive" Stance– India avoids such deep monitoring, preserving user privacy to a greater extent.

Drawback– The lack of comprehensive safety obligations leaves users vulnerable to manipulation and addiction without regulatory recourse.

Sectoral and Institutional Measures in India

Different regulatory bodies are addressing AI risks within their specific jurisdictions –

Ministry of Electronics and Information Technology (MeitY)– Using IT Rules to combat deepfakes and fraud. Mandating the labelling of synthetically generated content to ensure transparency.

Reserve Bank of India (RBI)– Introduced expectations regarding model risk in credit scoring and financial decisions. Developing the FREE-AI framework to govern AI in the financial sector.

Securities and Exchange Board of India (SEBI)– Pushing for clear accountability from regulated entities regarding how they deploy AI tools in the market.

The Imperative- Building Capacity While Regulating

The "Regulate First" Trap- Adopting strict regulations without having domestic capabilities risks deepening foreign dependency. If India only regulates, it will end up regulating foreign products rather than building its own.

Current Lag- Despite a massive user base and adoption ecosystem, India significantly lags behind the **U.S. and China** in developing "frontier AI models" (foundational models).

Priority Pillars for Growth

1. Access to Compute- Expanding the availability of high-performance computing infrastructure.
2. Workforce Upskilling- Systematically training the workforce to handle and create AI technologies.
3. Public Procurement- Government usage of Indian AI to spur demand.
4. Research-to-Industry Translation- Bridging the gap between academic research and commercial application.

Model Conduct & The Way Forward

Focus on Downstream Risks- Regulation should target high-risk use cases (like health diagnosis or credit denial) rather than stifling "upstream" innovation (research and model building).

Accountability Mechanisms- Implement robust incident reporting systems for AI failures. Enforce product accountability standards.

Avoid Emotional Surveillance- Safety measures should protect users without mandating the intrusive monitoring of emotions seen in other regimes.

Conclusion

India stands at a critical juncture where it must avoid the trap of "overregulation without capability." The path forward lies in a dual strategy- aggressively building domestic capacity-through compute infrastructure and upskilling-while simultaneously enforcing accountability for high-risk downstream applications. By prioritizing product safety and a clear duty of care over stifling surveillance, India can protect its citizens while securing its technological sovereignty.

Source- <https://www.thehindu.com/sci-tech/technology/psa-white-paper-says-open-access-to-ai-infra-key-in-india/article70453900.ece>

2. AI That You Can Hold in Your Hand, and that Holds Your Hand (IE)

General Studies 3- Science & Technology

Topic- Awareness in the fields of IT, Computers, Robotics, Nanotechnology, and issues relating to intellectual property rights. (Artificial Intelligence (AI)- Generative AI, AI Agents, and Physical AI.)

AI That You Can Hold in Your Hand, and That Holds Your Hand- 2026 Tech Outlook

Introduction

Unprecedented Adoption- The article highlights that the speed of AI adoption has been incredibly fast, compressing what usually takes decades into mere months.

Integration over Efficiency- While the promised widespread efficiencies of AI are yet to fully materialize, the focus for 2026 is on AI deeply integrating itself into everyday life, moving from abstract tools to personal use cases.

A New Homepage for the Internet (The Shift in Search)

End of "10 Blue Links"- The traditional Google search model of providing a list of links is being challenged. AI is now delivering answers directly in a conversational format, summarizing information from across the web.

The "Zero-Click" Panic- Online portals and publishers fear a "zero-click" future where users get all information from an AI summary without ever visiting the source website, disrupting the traditional ad-revenue model.

Metric Shift- The metric for success is shifting from CTR (Click-Through Rate) to "answers," fundamentally changing how content is valued and monetized.

Changing Internet Economy- New business models are emerging, such as Perplexity's Comet, where browsers and publishers might share revenue based on answers rather than clicks.

AI-Powered Devices & The "AI Phone"

The AI "Butler"- Future devices will act as personal butlers, capable of summarizing emails, reminding users of important tasks, and answering calls on their behalf.

The End of Apps- The article predicts a shift away from individual apps. For instance, an AI agent could book an Uber or order food without the user ever opening the specific Uber or Zomato apps.

Hardware Evolution- There is speculation that major AI players like OpenAI or Anthropic might release their own "AI Phone," threatening the dominance of traditional smartphones and browsers.

"A Rewind on Your Life" (Wearable AI)

Memory Augmentation- New wearable devices (glasses, necklaces) will have the ability to record everything a user sees and hears. This acts as a "rewind" button for life, helping users recall conversations or actionable steps they might have forgotten.

Contextual Awareness- These devices will use AI to take notes on surroundings and interactions, offering a "better version of Google's Android XR glasses".

Social Implications- While useful for memory, this trend raises questions about privacy and the nature of social interactions when everything is being recorded.

AI Agent Orchestration

From Chatting to Doing- If 2025 was about talking to AI chatbots, 2026 will be about AI Agents performing complex tasks independently.

Orchestration- This refers to systems where a master AI coordinates multiple specialized agents to complete a workflow (e.g., executing a marketing campaign involving design, copy, and analytics agents).

Economic Value- This capability is crucial for enterprise efficiency, with the autonomous agent market projected to reach \$51.5 billion by 2026.

Physical AI (Robotics & Automation)

Autonomous Vehicles- Companies like Waymo (in San Francisco) offer driverless rides that are statistically safer than human drivers but lack human connection/interaction.

Humanoid Robots- Firms like Tesla, Boston Dynamics, and Figure AI are developing robots capable of household chores like folding laundry or walking dogs.

Current Limitations- While promising, these physical AI units are currently expensive (prototype costs around \$20,000) and rely heavily on power supply, but they represent a shift of AI into the physical world.

Other Emerging Trends

Social media- A shift towards recreation on platforms and a move away from "beautification" (filters), with raw photos becoming popular again.

Audio Tech- "Earforms" will push the envelope of audio interactions, suggesting a rise in voice-first interfaces.

Conclusion

The year 2026 is poised to be a transformative period where AI moves from being a tool on a screen to an integrated "layer" over our digital and physical lives—reshaping how we search, how we work through agents, and how we interact with the physical world through robotics.