CROSS & CLIMB ROHTAK
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TECHNOLOGY AND THE CHALLENGE OF EQUITABLE EDUCATION

- The **evolution of digital technology in India over the past three decades has brought with it new opportunities and challenges**, especially in the field of education.
- The **COVID-19 pandemic accelerated the digital transformation in rural India**, providing an unexpected push toward digital education.
- The **Annual Status of Education Report (ASER) data reflect this transformation, highlighting the growing accessibility of smartphones**, the integration of digital learning tools, and the potential of technology to bridge educational gaps.
- However, **despite these advancements, significant challenges remain, particularly in ensuring that technology benefits the underprivileged** and enhances learning outcomes effectively.

Challenges in Utilising Technology for Education

- **Limited Access to Devices and Internet Connectivity**
  - Although smartphone ownership has increased significantly in rural India, **access to personal devices for education remains uneven.**
  - **Many households share a single smartphone** among multiple family members, limiting children's ability to use it for uninterrupted learning.
- **Digital Literacy and Lack of Technological Awareness**
  - Digital literacy, **the ability to navigate digital platforms, search for relevant content, and use educational applications, is still low** among many rural students, parents, and even teachers.
  - ASER data suggest that **a large percentage of mothers in rural India have received little to no formal education.**
  - M**any teachers in rural schools have limited exposure to digital teaching methods,** making it difficult for them to integrate technology into their classrooms.

- **Fragmented School Attendance and Learning Outcomes**
  - Although school access has improved in rural India, **learning remains highly fragmented due to inconsistent attendance and varied schooling systems.**
  - **Many children, especially in rural areas, skip school due to economic pressures**, seasonal migration, or lack of parental enforcement.
  - This **makes it difficult to integrate digital learning** as a regular practice.
- **Language and Content Limitations**
  - **Although AI-powered translation tools are improving,** high-quality interactive content in regional languages is still lacking.
  - **Many educational resources are designed from a Western perspective**, making them less relatable for rural Indian students.

The Role of AI and Future Prospects

- As digital learning evolves, **AI presents new possibilities for education.**
- **AI-driven tools can help customize learning paths**, provide real-time feedback, and make educational content available in multiple languages.
- **Language barriers**, which previously hindered access to digital learning resources, **are gradually diminishing due to AI-powered translation and voice recognition tools.**
- However, while technological advancements are promising, **they must be implemented strategically to ensure they serve the needs of the underprivileged.**

Conclusion

- **The rapid expansion of smartphone access has created unprecedented opportunities** for learning, but meaningful progress requires addressing key challenges.
- AI and other emerging technologies hold great promise, **but their benefits must be made accessible to all, particularly the underprivileged.**
- A **strategic approach, balancing innovation, affordability, and inclusivity, will be essential** in realising the true potential of digital education in India.

INDIA'S AI REVOLUTION - SEIZING THE FUTURE

- **The global AI race is intensifying**, with the US making massive semiconductor investments and new open-source models challenging proprietary AI dominance.
- **India has significant potential** to become a leader in artificial intelligence (AI), backed by a robust digital infrastructure and a skilled workforce.

India's Strengths in AI:

- **Enabling ecosystem:**
  - India has an ecosystem that **allows both public and private innovation to flourish**.
- **Growing AI workforce and market:**
  - India has **4,20,000 AI professionals**, one of the largest AI talent pools.
  - With a **92% AI adoption rate**, India leads global enterprise AI integration.
  - The **$17 billion AI market potential** positions India as a major player.
- **Government initiatives and startup ecosystem:**
  - The **IndiaAI Mission** reflects strong government commitment.
  - India has **240+ Generative AI startups**, with 70% focused on industry-specific solutions (e.g., healthcare, education, BFSI, agriculture).
  - **Examples:**
    - **Sarvam AI** - Developing foundational models in Indian languages.
    - **Niramai** - AI-powered breast cancer detection.
    - **BHASHINI** - Breaking language barriers with support for 22+ Indian languages.

Challenges and the Need for AI Hardware Development:

- **Dependence on foreign AI hardware:**
  - **Graphics processing units** (GPUs - key AI components) are controlled by the US.

- **Strategic need for indigenous AI hardware:**
  - India must develop its **own AI hardware** to ensure technological sovereignty.
  - Investment in AI hardware will **create jobs, attract capital, and drive innovation**.
  - India can position itself as a critical global supply chain player.

Roadmap for India's AI Leadership:

- **Innovation with cost-effectiveness:** Inspired by ISRO's frugal engineering, AI development must be **energy-efficient** and cost-effective.
- **Open-source AI development:** Encourage an open-source AI ecosystem with strong software-computing convergence. Develop AI solutions for key challenges in education, healthcare, and governance.
- **Sovereign AI models:** Build AI models that are based on **Indian datasets,** free from external biases. Develop end-to-end AI ecosystems, not just application layers.
- **Multilingual and multimodal AI models:** India's 22 official languages and regional dialects require AI models that **ensure linguistic inclusivity**.
- **Global AI leadership and policy advocacy:** As a **Quad** partner, India must negotiate for Tier-I status in AI diffusion. Push for unrestricted access to AI computing resources.
- **Mission-driven urgency:** AI leadership demands a mission-driven approach, with clear policy and regulatory support.

Conclusion:

- India must transition from a service provider to a **global AI innovator.**
- India has the **necessary foundation** to catalyse both the pace and scale of a new wave of digital transformation.
- India must take decisive steps to **build and fortify the hardware backbone** powering AI systems, ensuring that they deliver unmatched efficiency, reliability, and scalability.
- **Strategic investments in AI infrastructure**, talent, and policy will define India's role in shaping the future of AI.

REPO RATE CUT BY RBI - A SHIFT IN MONETARY POLICY
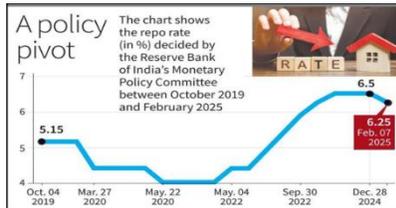
- **Repo rate cut:** The repo rate is the **interest rate at which a central bank lends money to commercial banks**. The term "repo" stands for **"repurchase option"**. The RBI reduced the repo rate from **6.5% to 6.25%.**

- **Inflation outlook:** Inflation is expected to ease to 4.4% this quarter and further moderate to 4.2% in 2025-26.

- **Impact on loans:** The reduction in the repo rate could lead to **cheaper loans** for homes, cars, and other purposes.

- **First rate cut since 2020:** The last rate cut occurred in May 2020 when the repo rate was reduced to 4% during the COVID-19 crisis.

Digital Security Initiative - Introduction of 'bank.in ' Domain:

- **Exclusive internet domain for banks:** The RBI has announced the launch of the 'bank.in ' domain for Indian banks **to enhance trust in digital transactions**.

- **Objective:** To reduce cybersecurity threats, prevent phishing, and streamline secure financial services.

- **Implementation:**
  o The Institute for Development and Research in Banking Technology (**IDRBT**) will act as the exclusive registrar.
  o Actual registrations will begin in April 2025.
  o Detailed guidelines for banks will be issued separately.

- **Future expansion:** Plans to introduce '**fin**.**in**' for non-bank financial entities in the future.

Market Reactions of the RBI'S MPC Decisions:

- **Stock markets:** The Sensex fell by 198 points (0.25%) to 77,860.19, while the NSE Nifty declined by 43 points (0.18%) to 23,559.95.
- **Banking sector performance:** The BSE Bankex fell by 0.49%.
- **Bond markets:** The 10-year bond yield increased slightly to 6.70%.
- **Rupee movement:** The rupee **appreciated** by 15 paise to 87.43 against the US dollar.

Future Monetary Policy Expectations:

- **Less restrictive policy on the anvil?** Malhotra hinted that the MPC might shift its stance from neutral if inflation-growth dynamics turn favorable.
- **Expected rate cuts:** There are expectations of two more rate cuts in 2025 if inflation moves as projected.
- **Aspirational growth target:** The RBI Governor expressed a desire for 7% GDP growth.

Conclusion:

- The RBI's rate cut signals a shift in monetary policy to stimulate economic growth while maintaining inflation control.
- With a neutral stance, the central bank is balancing inflationary concerns and global uncertainties while ensuring stability in India's financial markets.
- The introduction of the 'bank.in ' domain is a crucial step toward securing India's digital financial ecosystem.
- **The market remains cautious, awaiting further policy signals from the RBI.**

SHATAVARI PLANT

In a bid to raise awareness about the health benefits of medicinal plants, a species-specific campaign titled "Shatavari –For Better Health" was launched by Minister of State (Independent Charge), Ministry of Ayush.

- **Asparagus racemosus** (family Asparagaceae), also known by the name Shatavari, is one of the well-known drugs in Ayurveda. Shatavari means **"acceptable to many".**

- It belongs to **family Liliaceae** and commonly known as **Satawar or Satamuli.**

- **Appearance:** It is a **woody climber** growing to 1-2 m in height. The leaves are like pine needles, small and uniform and the flowers are white and have small spikes.

- **Habitat and Distribution:** Its habitat is common at low altitudes in shade and in tropical climates throughout Asia, Australia and Africa.

- In Ayurveda, this amazing herb is known as the **"Queen of herbs",** because it promotes love and devotion.

- **Charak Samhita,** written by Charak, and **Ashtang Hridyam,** written by Vagbhata, **list racemosus** as part of the formulas to treat women's health disorder.

Uses of Shatavari Plant:

  o The dried roots of the plant are **used as drug.** The roots are said to be tonic and diuretic and galactagogue, the drug has ulcer healing effect probably via strengthening the mucosal resistance or cytoprotection.

  o This herb is highly effective in problems related with **female reproductive system.**

SWAVALAMBINI PROGRAMME

- It was launched by the **Ministry of Skill Development and Entrepreneurship** (MSDE) through **Indian Institute of Entrepreneurship** (IIE), in collaboration with **NITI Aayog** in Assam, Meghalaya and Mizoram.

- This initiative is aimed at **empowering female students** in select **Higher Education Institutions (HEIs)** in the northeast by equipping them with the essential entrepreneurial mind-set, resources, and mentorship they need to succeed in their entrepreneurial journey.

- Those who successfully build their ventures will be recognized and awarded, ensuring that their success stories inspire others. This initiative will define a clear process for how we nurture and scale women-led enterprises in India.

- The initiative aims to provide structured training through the **Entrepreneurship Awareness Programme (EAP)** which introduces 600 female students to entrepreneurship as a viable career option.

- For 300 selected students, the Women Entrepreneurship Development Programme (EDP) offers an intensive 40-hour training covering crucial business aspects such as training and skilling, access to finance, market linkages, compliance and legal support, business services, and networking opportunities.

- This will be followed by **six months of mentorship** and handholding support to help participants translate their ideas into sustainable prospects.

NATIONAL COMMISSION FOR SAFAI KARAMCHARIS

Recently, the Union Cabinet approved a three-year extension of tenure for the National Commission for Safai Karamcharis (NCSK).

- It was first set up in 1994 under the **National Commission for Safai Karamcharis Act, 1993.**

- It was functioning as a statutory body till 2004, when the law lapsed.

- Since then, the commission is acting as a **non-statutory body** under the Social Justice Ministry with its tenure being extended from time to time.

- **Functions of National Commission for Safai Karamcharis:**
  - The NCSK gives recommendations to the Government regarding specific programmes for welfare of Safai Karamcharis, study and evaluate the existing welfare programmes for Safai Karamcharis, investigate cases of specific grievances etc.

- o The NCSK has been assigned the work to monitor the implementation of the **Prohibition of Employment as Manual Scavengers and their Rehabilitation Act, 2013.**
- o It is the only body keeping track of sewer deaths in the entire country.

DONKEY ROUTE

Indian deportees from the US, arriving in Amritsar, recently shared their harrowing experiences using the "donkey route" for illegal immigration.

- **Named after a Punjabi idiom referring to an arduous, unplanned journey**, it involves **crossing multiple international borders**, often through **treacherous terrain,** under false promises of legal entry.

It typically **involves illegal border crossings via indirect routes** with multiple stops in different countries.

- o For instance, individuals might obtain a tourist visa for the European Union's Schengen Area, allowing free movement across 26 countries, and then illegally enter the UK with the help of "consultants" or "agents."
- o These agents often charge hefty fees for services ranging from fake documentation to smuggling via shipping containers.