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DAILY EDITORIAL ANALYSIS

TOPIC

INDIA'S UNTAPPED DATA: STRATEGIC ASSET FOR INDIA

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Context

- India holds the potential to transform itself into a global leader in data-driven innovation by technological advancement, and social development in a rapidly growing digital ecosystem.

Digital Data Generation

- **India as Highest User Count:** India accounts for an **estimated 20% of the world's data production**, with millions of users on social media platforms like Facebook, WhatsApp, Instagram and YouTube.
  - Additionally, 82.6% of Indian email users prefer Gmail.
- **Global Comparison (Natural Resources vs. Digital Data):** Other nations have capitalized on their inherent strengths:
  - **China**: Controls 70–80% of global rare earth processing
  - **Australia**: Leads in iron ore mining
  - **Chile**: Dominates copper production
- **Generative AI Boom:** The value of data has been amplified by Generative AI:
  - McKinsey estimates it could add $2.6 to $4.4 trillion annually to the global economy.
  - Productivity gains from AI could reach 40%.

Concerns & Challenges

- **Underdeveloped Infrastructure:** India's natural advantage in digital data remains largely untapped.
  - Despite **generating a fifth of the world's data**, it holds **less than 2% of global data centre capacity.**
- **Infrastructure Deficit:** Global data centre power capacity is projected to triple from 59 GW (current estimate) to 171–219 GW by 2030, growing at a CAGR of 19–27%.
  - In contrast, India's capacity is currently just 900 MW. Even if it doubles in the next five years, it will remain vastly insufficient.
  - Traditional barriers such as, Unreliable power supply, Limited cable landing stations, and Insufficient undersea cable capacity.
- **India's Data Centre Gap:** India's current data centre capacity: 900 MW (approx); Expected to double in five years.
  - Still a small fraction of the needed 40 GW by 2030.

Why Do Data Centers Matter?

- These are more than repositories for digital storage — they are foundational to **economic growth, national security, and technological innovation**.
- They act as backbones for **critical sectors** such as fintech, e-commerce, healthcare, and artificial intelligence.
- They enable secure, high-speed processing, ensure regulatory compliance, and attract FDI — forming a robust ecosystem that powers digital economies.
- A 2017 MIT study found that data-driven firms outperform others, with 4% higher productivity and 6% higher profitability.

- **Case Against Mandatory Data Localisation:** While data localisation mandates may seem like a quick fix, they have significant downsides:
  - May trigger retaliation from other nations, hurting Indian exports
  - Could raise service prices and reduce competition
  - Smaller firms may exit the Indian market
  - May be viewed as a trade barrier, leading to legal disputes

Policy Landscape and Reform Readiness

- **Positive Policy Environment:** India is now better prepared to grow its data infrastructure, with:
  - Digital Personal Data Protection Act (2023) ensuring secure, compliant data use
  - 100% FDI permitted for data centres
  - Global companies localising services (e.g., Facebook, YouTube)
  - Large employable workforce ready to support the industry

- For more information on initiatives, kindly visit the following link: **https://www.nextias.com/ca/editorial-analysis/07-01-2025/digital-governance-in-india**

Learning from Global Leaders like US and China

- **United States:** It offers tax breaks (sales, property, income), accelerated cost recovery, renewable energy credits, and subsidised electricity.
- **China:** It classifies data centres as national strategic projects, offering ultra-low electricity tariffs, corporate tax cuts, and green data centre incentives.

Recommendations for a Data-Centric Future

- **Infrastructure:** A proportional data infrastructure would demand at least 20% of global data centre capacity.
  - India needs to invest $400 billion, creating 1–2 million direct jobs. support up to 6 million indirect jobs, and construct 800 million sq. ft. of infrastructure, to match its data output.
- **Tax Incentives:**
  - 10-year tax holiday for data centres.
  - Customs duty exemption on data centre hardware.
  - 5% GST on infrastructure and services.
- **PLI and Design-Linked Incentives:** Extend PLI-type schemes currently used in electronics manufacturing to the data centre industry.
- **Infrastructure Financing:** Concessional loans for green and high-efficiency data centres.
  - Subsidised electricity, with the ability to purchase directly from discoms.
- **Regional Hubs Development**: Leverage cities like Dehradun, Shimla, and Chandigarh—where cooling costs are lower—to develop data centre hubs connected via dedicated fibre corridors.

Road Ahead: Urgency and Opportunity

- As global data production surpasses the sum of all prior human history annually, the stakes have never been higher. Data infrastructure is no longer a technical issue—it is a matter of economic sovereignty, technological competitiveness, and geopolitical resilience.

Mains Practice Question

[Q] How can India effectively harness its vast untapped data reserves to achieve economic growth, technological leadership, and social development, while addressing challenges like data privacy and infrastructure gaps?

Source: BS

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