Mains Master

Telecom law upgrades for a digital authoritarian state

Context

The online landscape is tainted by disinformation and propaganda, eroding public trust. Rampant data collection has eroded privacy norms. Some nations are gravitating towards digital authoritarianism, emulating China's strict censorship and surveillance. Social media fosters polarized echo chambers and societal division, posing challenges for democratic societies.These challenges highlight the growing struggle to maintain a safe and open digital environment. As governments wield digital power, the need for global dialogue on responsible online governance becomes increasingly urgent.Digital surveillance refers to the monitoring, collection, and analysis of electronic data for various purposes, including monitoring activities, behaviors, or communications of individuals or groups. It involves the use of digital technology to track, record, and analyze information from various sources, such as emails, social media, internet browsing, phone calls, and more.

Political Messaging and Cultural Emphasis

- **Language and Attribution:** The deliberate use of "Bharat" instead of "India" and attributing successes solely to the Prime Minister's vision serve as deliberate strategies to evoke cultural nationalism and emphasize a strong, centralized leadership.

Telecom Bill Analysis

- **Digital Divide Neglect:** Despite symbolic gestures and fund renaming, the bill lacks innovative approaches to address the growing digital gap, failing to offer effective solutions.
- **Lack of Innovation:** The bill doesn't introduce fresh ideas and seems to favor specific corporations, thereby perpetuating the existing dominance of a few players in the telecom sector.

Authoritarian Undertones

- **State Control Reinforcement:** Retaining colonial-era mechanisms with more severe implications, the bill grants potentially broad powers, raising concerns about privacy infringements and increased surveillance.
- **Surveillance and Control Expansion:** Ambiguous definitions and lack of safeguards might pave the way for a surveillance-oriented state, curtailing individual liberties.

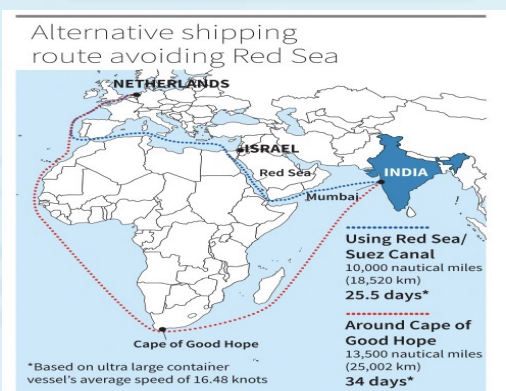
Democratic Erosion

- **Suppressed Opposition Voices:** Suspension of opposition members and hasty bill passage limit dissenting voices, raising doubts about the democratic integrity of the process.
- **Constitutional Veneer over Concentration of Power:** Despite following formal procedures, a visible concentration of power hints at the erosion of democratic norms.

Impact on Citizenry

- **Diversion from Real Issues:** The emphasis on cultural aspects diverts attention from pressing citizen-centric problems, overshadowing genuine concerns.
- **Shift from Democracy to Autocracy:** The bill's narrative suggests a shift away from democratic principles towards a leadership-driven governance model, potentially concentrating power and diminishing democratic checks and balances.

Red Sea attacks: Rerouting of ships to push up cost, impact India's trade



Impact on Global Trade: Red Sea/Gulf of Aden Crisis

- **Attacks by Iranian-backed Houthi Militants**
- Recent attacks on ships passing through the Red Sea/Gulf of Aden by Houthi militants have disrupted global trade routes, compelling container ships to divert via the Cape of Good Hope. this geopolitical turmoil.

Consequences of Route Diversions

- **Longer Transit Times and Increased Freight Costs:** Ships taking the longer route via the Cape of Good Hope burn significantly more fuel, doubling the travel time to more than two weeks and raising transit costs by a million dollars per trip.
- Need for Additional Shipping Capacity: Around a million TEUs of additional shipping capacity may be required due to increased sailing time and reduced turnaround time for ships.

Impact on Freight Charges and Trade

- **Expected Rise in Freight Charges:** Freight charges are estimated to double to over $2,000 per TEU due to added expenses, including various surcharges and contingency charges introduced by shipping lines.

Double Blow to Global Trade

- Combined Impact of Red Sea and Panama Canal Disruptions
- Red Sea crisis compounds with a previous disruption in container vessel movement through the Panama Canal, significantly affecting global trade routes from Asia to Europe and the Eastern Coast of the United States.

Implications for Indian Trade

- **Effects on Indian Exports and Imports:** India's trade, including exports of engineering goods, textiles, tea, and imports of electronics and minerals, faces disruptions due to issues in the Red Sea and the Suez Canal.

Geopolitical Context and Sectoral Impact

- **Cause and Reaction to Attacks**
- **Houthi Militants' Motivation:** The attacks by Houthi militants were triggered as a reaction to perceived Israeli actions against Hamas, leading to the redirection of major shipping lines.
- **Impact on Indian Trade:** Shipping lines utilized by Indian traders, such as Mediterranean Shipping Company, Maersk, CMA CGM Group, and Hapag Lloyd, shifted their routes, affecting India's exports and imports.
- **Sectoral Implications**
- **Effects on Specific Industries:** Various industries like coffee exporters and cashew manufacturers in India anticipate adverse impacts on exports, increased insurance rates, higher freight charges, and extended delivery times to Europe and the US.
- **Potential Shifts and Opportunities**
- Evolving Export Pricing and Food Supply Dynamics: Expectations of changes in export pricing and supply disruptions in sectors like wheat supply, possibly leading India to play a significant role in strengthening the food security of the Middle East and North Africa (MENA) region amidst this geopolitical turmoil.

Dubious ways of ratingagencies

The article criticises Credit Rating Agencies (CRAs), notably the big three, for their opaque methodologies in assessing sovereign ratings. It highlights biases favoring certain economies, impacting borrowing costs for developing nations. The narrative calls for greater transparency, suggesting reliance on repayment history and clear governance indicators for fairer assessments.

Challenges with Credit Rating Agencies (CRAs) in Assessing Sovereign Ratings

Opacity in Methodologies and Discriminatory Aspects

- **Opaque Methodologies:** The methodologies used by CRAs, notably the big three (Fitch, Standard & Poor's, Moody's), lack transparency, especially in parameters favoring public-owned banks in developing economies versus foreign-owned banks, impacting the ratings of developing nations unfairly.
- **Expert Consultation Opacity:** The selection process for experts consulted in rating assessments lacks transparency, further complicating the interpretation of the methodologies and ratings.
- **Lack of Clarity in Parameter Weights:** CRAs do not clearly disclose the weights assigned to different parameters, leaving readers to speculate on their significance, leading to potential biases.

Discriminatory Practices and Consequences

- **Rating Downgrades and Impact:** Developing nations face a higher percentage of credit rating downgrades compared to advanced economies, influencing borrowing costs significantly.
- **Subjectivity Favoring Advanced Economies:** There's a perception that subjective assessments favor advanced economies, evident in over 95% of credit rating downgrades affecting developing countries despite milder economic contractions.

Implications on Developing Sovereigns

- **Limited Access to Funding:** Downgrades hamper access to affordable long-term funding from international capital markets for developing countries.
- **Qualitative Over-Qualification:** Over-reliance on qualitative factors overrides significant macroeconomic improvements in credit ratings, exemplified by India's static BBB- rating despite significant economic growth.

Alternative Approaches and Transparency Needs

- **Relying on Historical Repayment Records:** Using a country's consistent debt repayment history as a benchmark for evaluating willingness to pay back debt obligations to eliminate biases and inaccuracies in qualitative judgments.
- **Need for Transparent Governance Indicators:** Governance indicators should rely on clear, measurable principles rather than subjective judgments by CRAs to improve assessment accuracy.

- **Call for Transparency in Recommendations:** CRAs are urged to provide clear insights and guidance on specific reform areas needed for a credit rating upgrade to enhance transparency in the rating process.

Climate change: Nabard to tap global capital for agri

Nabard's Collaboration with ADB and Bill & Melinda Gates Foundation

Objective:

- To tackle climate change's adverse impact on the farming sector

Key Initiatives:

- Establishing a Technical Support Unit (TSU) within Nabard
- Formulating a climate financing policy with support from the Bill & Melinda Gates Foundation
- Mobilizing global financial resources through ADB's expertise

Partnership Goals and Focus Areas

Collaborative Efforts:

- Identifying and supporting food security and climate financing programs in the ANR sector
- Extending support to ongoing and future Nabard projects, enhancing value through public and private fund contributions

Supported Projects:

- Climate-resilient agriculture, agroforestry, and irrigation modernization initiatives
- Agriculture value chain financing, crop diversification, micro-irrigation projects
- JIVA program for watershed and tribal areas covering 2.5 million hectares with a funding commitment of Rs 5,000 crore

Nabard's Jiva Program: Soil Rejuvenation and Sustainable Agriculture

Program Objective:

- Focuses on rejuvenating agricultural ecosystems, ensuring soil enrichment, and fostering natural resource utilization.

Key Initiatives:

- Creation of watersheds securing water for 2.5 million hectares of land.
- Emphasizes maintaining soil health and promoting proper agricultural practices.
- Aims to establish a system preventing further harm to soil and nature.

Collaborative Approach:

- Nabard collaborates with NGOs and rural stakeholders to roll out the Jiva program.
- Conducts training programs in Maharashtra to sensitize participants about the initiative.

Promotion of Integrated Farming and Financial Support

Integrated Farming Approach:

- Encourages farmers to diversify crops for sustenance and market resilience.
- Nabard facilitates funding through banks for integrated farming, supporting horticultural crop growth among small-scale farmers.

Resilience Against Market Challenges:

- Integrated farming aims to serve as an insurance against market volatility.
- Nabard also supports Farmer Producer Organizations (FPOs) to strengthen agricultural sustainability.

Supporting Primary Agricultural Cooperative Societies (PACS)

Financial Aid for PACS:

- Nabard extends financial aid of up to ₹2 crore to PACS to revitalize operations.
- Aims to transform PACS into multi-service societies to enhance financial resources and operational capabilities.

Digitization Initiatives for PACS:

- Devises a scheme to computerize PACS operations for improved efficiency and modernization.

Prelims Blaster

Space techbased spectral library for Uma rice launched

- Kerala University of Fisheries and Ocean Studies and Centre for Water Resources Development and Management (CWRDM) collaborated to create a spectral library for Uma rice, utilizing space technology for precise assessments of Uma rice growth stages and stress conditions.
- Kerala State Council for Science, Technology, and Environment provided ₹83.5 lakh grant for the study titled "Development of Spectral Library for Hyper-spectral Data with Special Emphasis on Paddy."
- Uma rice, a popular indigenous variety in Kerala, is known for its round shape and sticky texture, released from Mancompu research station in 1998, and is widely cultivated despite climate challenges in paddy cultivation, with the spectral library revolutionizing monitoring and enabling efficient assessments of Uma rice cultivation, aiding in understanding growth stages, stress influence assessment, and yield estimations utilizing remote-sensing images.

India's coking coal imports at 5-year high; Russia now among top three suppliers

- 📈 India's coking coal imports hit a five-year high during April-November, slightly surpassing the previous year's figures, driven by buoyant steel demand linked to robust domestic steel market demand.
- 🌏 Australia's dominance in coking coal supply to India declined, with Russian and US suppliers increasing their exports, and Russia becoming the third-largest supplier, while Australian shipments decreased by 17% over five years and 10% YoY.
- 🌐 Indian mills are exploring diversification strategies to reduce reliance on Australia, considering alternatives due to price volatility and overreliance, with exploration beyond Australia to countries like Russia, US, Poland, New Zealand, and potential future tapping of Mongolia.
- 🏗️ The surge in coking coal imports aligns with India's efforts to diversify suppliers and mitigate dependency on a single source, driven by increased production and consumption in the steel industry, with finished steel production rising by 13% YoY and crude steel production growing by 15%, reflecting a 15% increase in consumption.

Rare Earth Minerals

China recently expanded its export ban to include rare earth magnet-making technology, in addition to the existing ban on technology for rare earth extraction and separation. This move has significant implications for global supply chains and national security. The ban highlights the need for diversified supply chains and technological innovation beyond China's dominance in the rare earth market. The West is investing in alternative processing technologies to reduce reliance on China.This development underscores the urgency for diversified rare earth supply chains and technological innovation.

- 🌍 The rare earth elements (REE) are a set of seventeen metallic elements, including the fifteen lanthanides on the periodic table plus scandium and yttrium.
- 📱 Rare earth elements are essential components in over 200 products, especially high-tech consumer products like cellular telephones, computer hard drives, electric and hybrid vehicles, and flat-screen monitors and televisions.
- 📈 In 1993, China, the United States, Australia, Malaysia, and India were the major producers of REEs, but by 2011, China accounted for 97 percent of world production.
- 🛑 China's control over the production and export of REEs became a concern as they began to limit the amount allowed to be produced and exported, impacting global supply.
- 🌐 Other countries like Brazil, Canada, South Africa, Sri Lanka, and Thailand also contribute to the production of REEs, but to a lesser extent.
- 💼 REEs are crucial for significant defense applications, including electronic displays, guidance systems, lasers, and radar and sonar systems.
- 🧲 Magnets made of REEs are vital for the functioning of devices like desktops and laptops.

Regulatory Sandbox

- 🏦 The Reserve Bank of India has initiated the application process for the fourth phase of its 'regulatory sandbox' program, with a focus on preventing and mitigating financial fraud.
- 🧪 The 'sandbox' provides a controlled environment for testing new financial products or services, with regulatory relaxations under the RBI's oversight, fostering innovation without risking the stability of the financial system.
- 📈 The initiative aims to provide valuable insights and data for innovators, regulators, and end-users to understand the practical implications, effectiveness, and potential risks associated with innovative solutions before widespread implementation.
- 🛡️ By concentrating on the prevention and mitigation of financial fraud, the RBI seeks to encourage the development of innovative solutions to enhance the security and resilience of the financial ecosystem in India.

DNA Sequencing

- 🧬 DNA sequencing involves determining the order of four chemical bases within the DNA molecule, revealing genetic information within specific DNA segments.
- 🧩 Adenine pairs with thymine; cytosine pairs with guanine in the DNA double helix, and the human genome has around 3 billion base pairs.
- 🌐 Technological advances and automation have significantly lowered costs and increased sequencing speed, enabling routine sequencing of individual genes and large-scale sequencing.
- 🎯 Genome Technology Program aims to reduce genome sequencing costs and promote technologies for higher quality and cost-effective genome sequencing.
- ⚕️ Rapid and cost-effective DNA sequencing enables comparisons between individuals, providing insights into disease susceptibility, diagnostics, and therapies.
- 📚 NHGRI-supported projects employ DNA sequencing to identify genetic causes of rare diseases, study gene regulation in various diseases, and unravel genomic details of cancer types.
- 🦠 Comparative genome sequencing across species provides insights into development, evolution biology, and understanding diseases like heart disease, diabetes, and inherited disorders.

Winter Funding

- 💰 "Funding Winter" refers to a period of reduced investment in start-ups globally since 2022, persisting into 2023.
- 📉 Investors have become cautious, impacting start-ups' ability to secure funding, though strong start-ups with solid foundations might still attract investments despite this trend.