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CENTRE FOR AEROSPACE & SECURITY STUDIES, ISLAMABAD
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Navigating the Global Digital Divide: Challenges and Policy Approaches

Digital Divide in Numbers

5G Coverage:
- High-Income Countries: **89%**
- Low-Income Countries: **Near-zero**

Emerging Tech Market:
- Dominated by rich nations: **$1.5T** today, projected **$9.5T** by 2030

R&D Spending:
- Global: **$1.7T,** with **80%** from just **10** countries

Internet Access:
- North America & Europe: **95%+**
- Sub-Saharan Africa **~40%**
- Southern Asia: **~51%**

Data Centres:
- US: **5,381**
- Germany: **521**
- Brazil (leading among developing countries): **152**

A digitally inclusive world is possible but only if developing nations shape the rules of the game.

Key Challenges

1. **Digital Colonialism**
   - Data from the Global South flows to the North, reinforcing inequality
   - Influenced by Zuboff's Surveillance Capitalism & Inhuman Power
2. **Skills & Research Gap**
   - Weak institutions --- Low employability, innovation, and entrepreneurship
3. **Fragile Digital Infrastructure**
   - Reliance on foreign data centres stifles cloud & tech development
4. **Financial Barriers**
   - Inadequate investment capacity for R&D and tech ecosystem growth

Policy Pathways Forward

1. **Decolonising the Digital Era**
   - Push for a Global Digital Compact (UN-backed)
   - Establish a Global Digital Equity Fund (modeled on climate justice)
2. **Building Human Capital**
   - Start early: Reform curriculum, teacher training, e-learning
   - Use R&D tax incentives to boost private innovation
3. **Infrastructure & Data Sovereignty**
   - Promote infrastructure sharing to cut costs
   - Prioritise data localisation for sovereignty
4. **Financing Innovation**
   - Leverage public-private partnerships
   - Launch crowdfunding platforms for SMEs/startups
   - Offer tax breaks & streamline regulation

Source: Shah Muhammad, *"Navigating the Global Digital Divide: Challenges and Policy Approaches"*, *CASS Working Paper Series* (March 2025)

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