Digital Technologies, Data, and Policies for Inclusive Trade and Development

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April 3, 2019

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About ITIF

▪ The world’s leading science and technology policy think tank.

▪ Supports policies driving global, innovation-based economic growth.

▪ Focuses intersection of technology innovation and public policy across several sectors:
  – Innovation and competitiveness
  – IT and data
  – Trade and globalization
  – Life sciences, agricultural biotech, and energy

Map: ITIF travel and policy engagement since 2007
Overview: Closing the Digital Divide & Supporting Digital Trade

- The Role of Data
- False Promise of Data Nationalism (Data Localization)
- Policies Supporting Digital Trade and Data-Driven Innovation

Note: Remarks Summarize New ITIF Report (4/1/19)

The False Appeal of Data Nationalism: Why the Value of Data Comes From How It’s Used, Not Where It’s Stored
Data Flows and Increasingly Digitalized Global Economy

Sources: Victor Mulas, The World Bank; World Bank Data for Merchandise Value Exports and Telegeography for Cross Border Data Flows
Digitalization, Trade, and Development

- Innovation and economic growth are increasingly driven by how firms collect, transfer, analyze, and act on data.

- Technology has opened the door to digital trade for developing countries, small companies and startups, and millions of individuals.

- Power of Platforms: Full suite of services enabling access to global markets. Benefit from network effects and economies of scale.

  - E.g. Mercado Libre, Amazon, Alibaba, eBay, JD.com, Lazada, Tokopedia, Americanas.com, Takealot, Jumia, Kilimall.
Challenge: Seizing the Opportunity of an Open Digital Economy

- Leaders need to be proactive and enact the right policies to seize the opportunity:
  - Domestically: Ensuring that people/firms can access and use ICTs.
  - Internationally: Ensuring rules help firms use technology to achieve economies of scale.

- E.g. Rwanda beat out Kenya to host Alibaba’s first global electronic trading platform for agricultural produce.
  - The reward: Increased sales and prices for Rwandan coffee.
The False Promise of Data Nationalism

Which Countries Block Data Flows?*

Source: ITIF, “Cross-Border Data Flows: Where Are the Barriers, and What Do They Cost?”
Data Localization Will Not Close the Digital Divide

- Data localization is misguided and harmful to digital development and trade.
  - Affects broader economic productivity and innovation as it raises cost of ICT for all firms and acts as a barrier to innovative digital services.
  - Stops local firms from using digital trade to achieve/build the economies of scale that are critical to success in global digital economy.

United States and China have internal scale. Other countries/regions have to have access to international markets to get scale.
To maximize the economic & social benefits of data & digital technologies, policymakers should instead focus on:

- Prioritizing broad adoption (not production) of ICT, especially by reducing costs of ICT;
- Improving the infrastructure that supports data innovation and digital trade;
- Maximizing the supply of reusable data, including by allowing it to flow across borders; and
- Helping workers develop data-science and data-literacy skills.
Adoption/Deployment of ICT Will Close the Digital Divide

- Adoption/deployment of ICT over production of ICT
  - ICT is a key “general purpose technology”
  - Review of studies: “At both the firm and the country level, greater investment in ICT is associated with greater productivity growth.”

- E.g., ICT and Kenya (World Bank, 2010):
  - ICT the main driver of Kenya’s economic growth (2000-2010), responsible for roughly one-quarter of GDP growth.

Reduce Costs of ICT

- Reduce costs and barriers to access data and data-reliant goods and services.
  - Eliminate (and avoid introducing further) tariffs on ICT imports;
  - Eliminate discriminatory taxes on ICT goods and services; and
  - Ensure that users can buy best-in-class technology from anywhere in the world (e.g., remove local content requirements, limits on foreign direct investment, and restrictive certification for ICT goods and services).
E.g. ITA - Focus on Broader Econ Benefits, Not Tariff Revenue

Joining the Information Technology Agreement Expansion: How Much Would Indonesia Profit by Eliminating ICT Tariffs?

Joining the ITA expansion would grow the economy by $5.4 billion in the 10th year, an increase of 0.35%.

Source: ITIF, “How Joining the Information Technology Agreement Spurs Growth in Developing Nations”
Maximize the Supply of Reusable Data

- Increase the supply and use of data. Avoid policies that stifle the supply and flow of data.

- Starting point:
  - Assist more firms/people with using ICT and data.
  - Enact domestic data governance frameworks and digital trade agreements that allow data to flow freely across borders.
Maximizing the Supply of Reusable Data

▪ Enact “open data” laws to facilitate access to data the govt collects.

▪ Specify that firms use modern machine-readable data standards.

▪ Encourage the deployment of key technological platforms, like smart cities.
Related Objective: Close The “Data Divide”

▪ “Data divide”—The social and economic inequalities that may result from a lack of collection or use of data about individuals or communities.

▪ Policy responses:

  – Setup government data collection programs for hard-to-reach populations;
  
  – Ensure that funding programs consider the impact of “data poverty;”
  
  – Ensure digital literacy programs help individuals understand data-producing technologies, such as social media and the Internet of Things.
Develop Data-Science and Data-Literacy Skills in Workers

- Data innovation does not just happen; people make it happen.
- Key indicators:
  - The number of science and technology graduates a country produces,
  - The number of data science degree programs a country offers.
- See: Center for Data Innovation reports
  - The Best (U.S) States for Data Innovation
  - The State of Data Innovation in the EU
Digital Development and Digital Trade Policy

- Digital trade is international extension to domestic digital development.
- Digital trade rules help firms develop economies of scale.
  - China/US firms benefit from internal scale. Other countries/regions need to use trade.
- Especially the case for SMEs.
- E.g. ITIF Report: Crafting an Open and Innovative Digital Trade Agenda for Latin America.
Conclusion: Digital Development, Digital Policy, and Productivity

- Avoid: Short-term, damaging mercantilist focus on local tech production, local data storage, and digital duties.

- Focus on:
  - Long-term economic productivity that arises from broad adoption and deployment of ICT, use of data, and engagement in digital trade.
  - Supportive domestic and international data governance and digital trade frameworks and rules.
Thank You!

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