

Theme 3: Impact on Traditional industries

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Research Area 3: Diffusion of Digital Technology across The Economy

Challenge: How does the diffusion of digital technology across all sectors of the economy contribute to the overall dynamism and competitiveness of the Canadian economy?

Research Questions:

1. How effectively are industries in the resource, manufacturing, service sectors in Canada adopting and deploying new digital technologies and media applications?
2. What opportunities, both global and domestic, is this creating for domestic suppliers of digital products and services?
3. What policy initiatives are needed to ensure that Canadian industry remains at the forefront of ICT adoption and diffusion?

Presentations

- Peter Warrian: Capital Intensive Resource and Manufacturing Industries
- Peter Phillips: Lower Capital Intensive Industries

Impacts of Digitization Across Capital Intensive Industries

- Digitization of Assets
- Large Investments in ICT driven by Foreign Firms and Global Markets
- New Model of Production: Supply Chains, merging of Design and Manufacturing

Take Aways

- Boundaries of the Firm: Collaborative Innovation. R&D.
- Value Migration. Data and System Integrators.
- De-Coupling Site of Production and Jobs.
- Economic policy debate about Tangible vs Intangible Assets.

Impacts of Digitization Across Lower Capital Intensive Industries

- Serve both local and export markets
- Both users and sources of digital innovations
- Specialization and mass customization (textiles)
- ICT not obviously driven by foreign firms and global markets—more evidence of local/regional dynamics and leadership
- Comms media sector and banking represent areas of threats and opportunities
- KIBS appears particularly important in ecosystem dynamics

Take Aways

- More apparent local-regional leadership and control in the lower-capital intensive industries than in the pure digital plays or in the capital intensives sectors
- DATA:
 - IPRs are less an issue –vary widely across and with the sectors
 - data management may be more important, both for determining how the industries will distribute value but especially for setting the limits to which technologies will actually introgress specific sectors
- Market power and structure an enduring concern
- Diffusion is beginning but more needed; government programming and services needs to reduce divide between digital and non-digital efforts

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