Agents and assets: The local context for Canada’s digital opportunity

Tara Vinodrai & Tijs Creutzberg

Senior Associates, Innovation Policy Lab
Munk School of Global Affairs and Public Policy
University of Toronto

Presentation to the 6th Annual CDO Research Network Meeting
OMNI King Edward Hotel, Toronto,
May 1, 2019
Research questions

• What role do local conditions play in supporting the competitiveness of IT firms in Canada?

• How does the local context support the process of new firm formation and firm growth in the IT sector?
**David said this was not a good idea. Deborah said it was fine.**
Theme II Studies

• ICT/digital eco-systems in five Canadian city-regions
  – Montreal (Cohendet and Grandadam)
  – Vancouver (Holbrook)
  – Toronto (Denney, Southin and Wolfe)
  – Waterloo (Ornston, Vinodrai & Spigel)
  – Ottawa (Creutzberg, Haley, Julie)

• Role of intermediaries
  – Innovation intermediaries (Crelinsten and Robbins)
  – Research intermediaries (Dauphin-Pierre and Beaudry)
  – Digital platforms (Breznitz and Noonan)
Data and Methods

• Qualitative data
  – 350+ in-depth interviews with firms, government policymakers, industry associations, other experts
  – Policy review, other relevant documents

• Quantitative data
  – Surveys (e.g. Global Entrepreneurship Monitor)
  – Digital platform data (LinkedIn, Kickstarter)
  – Other proprietary data sources
Anchor or global firms

• Critical role of large, multinational or global players
  – Major source of employment, draw in global talent
  – Training ground for local talent
  – Reputational effects
  – Connections to global networks
  – Customers/suppliers to constellation of local firms
  – Invest in the ecosystem

• Examples:
  – Ottawa: Nortel (historically), global MNEs; Waterloo: Blackberry;
    Montreal: Ubisoft; Vancouver: Electronic Arts, Amazon; Toronto:
    IBM
Associative actors and intermediaries

• Strong strategic leadership and coordinating role played by local actors
  – Best placed to understand unique strengths and challenges
  – Build local and global networks for mentorship, learning, knowledge exchange; access to markets, customers, and suppliers; matchmaking; develop testbeds and spaces for experimentation

• Examples
  – Ottawa: Invest Ottawa/KNBIA, Wesley Clover, Alacrity
  – Waterloo: Communitech; Toronto: TechToronto
  – Platforms: Kikstarter
Local assets

- Collective resources and shared assets that benefit the ecosystem as a whole
  - Universities and colleges
  - Research institutes and think tanks
  - Deep, specialized talent pool

- Unique, place-based characteristics
  - Built environment, transit, housing

- Local common (‘middleground’)
Research questions (revisited)

• What role do local conditions play in supporting the competitiveness of IT firms in Canada?
  – Embed multinationals into local ecosystem
  – Provide critical infrastructure for knowledge exchange, learning
  – Contribute to resilience
  – Rely on local leadership
  – Draws on resources from government for strategic initiatives

• How does the local context support the process of new firm formation and firm growth in the IT sector?
  – Identifies opportunities for local firms and digital economic development
  – Provides common resources (e.g. talent, capital, networks, etc.)
Common challenges

- IP policy, Access to funding and financing
- Local leadership is uneven
- Complex landscape of intermediaries, difficult to navigate
- Challenge of scaling domestic digital firms remains critical, esp. since few large Canadian firms
- Inclusion: Gig economy, affordability, connectivity
Policy lessons

• Importance of public investment and support
  – Support for intermediaries and associative actors
  – Publicly funded universities and colleges, research institutions (talent, research)
  – Federal government programs (SR&ED, IRAP, NSERC, NRC, NCE, Superclusters?)
  – Need to address: financing, IP, scaling up

• BUT, public and private supports for innovation in a digital age reach well beyond traditional investments and support for R&D
Policy lessons

- Places with dynamic digital ecosystems have built on their unique local assets and strengths to construct regional advantage, strategically and collectively
  - Invest in development of ‘local commons’ (or ‘middleground’)
  - Greater coordination between local, regional and national efforts
  - Continue to support local associative actors
  - Mechanisms for addressing inclusion and inequality
Open Questions

- How should governments support local conditions necessary for digital success?
- How to enable / mobilize local actors to create the necessary local conditions?
- Which model: Scaling up vs. embedding MNEs?