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

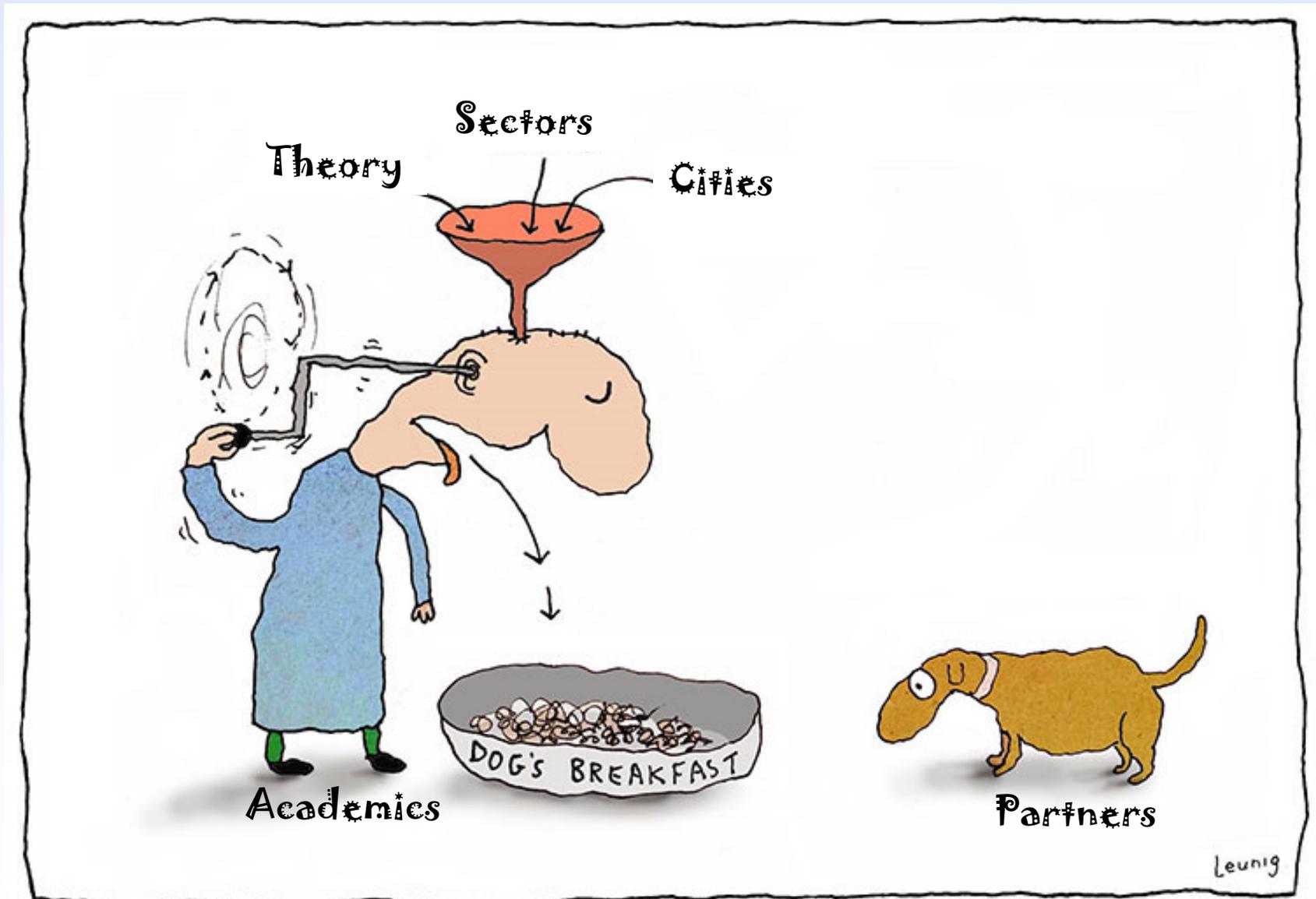
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Research questions

- 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, Kikstarter)
 - 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?