

# CDO Conference Saskatoon, April 2016

## Global digital opportunities in Vancouver

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# Digital industries in Vancouver

- Digital industries divide (not easily) into those that manufacture physical products and those that produce IP (usually in the form of software)
- In Vancouver, virtually all digital firms produce software. Many are in the games/animation/visual effects (GAV) fields. But what is in the comprises the rest of the digital cluster in Vancouver, and about which we know very little? What is the ecology of the digital cluster in Vancouver?
- To complicate matters, most software clusters appear to be intrinsically unstable / chaotic. In particular, in the software industries employment patterns are no longer hierarchical. Everyone is a contractor.

# The dark matter of the digital universe in Vancouver

- There are a number of software clusters in Canada. They include Vancouver, Calgary, Montreal and Toronto, and were studied previously by ISRN. Arguably they each have their own specialities: in Vancouver it is GAV – or is it?
- What policies can any and all levels of government in Vancouver support and enhance its unique competitive advantages: location, environment, quality of life, particularly in terms of its innovative links to the Pacific Rim?
- Are its digital industries competing only with other North American regions, or is the Vancouver software cluster intrinsically part of the global economy?

# The Vancouver CDO research plan

- Define the digital ecology of Vancouver : first, a survey of experts using the GEM methodology to map out the ecology, then interviews of a representative sample of firms, not-for-profits, educational institutions and government stakeholders using the CDO interview guide
- Research questions:
  - is there a specific “Pacific Rim advantage”?
  - what is the role of culture and diversity in this regional (or more properly, local) “innovation community”?

# The Global Entrepreneurship Monitor (GEM) Expert Surveys

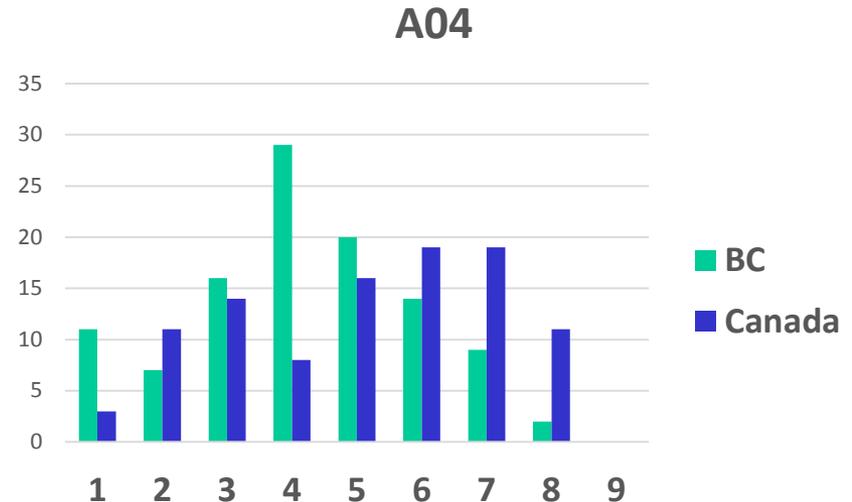
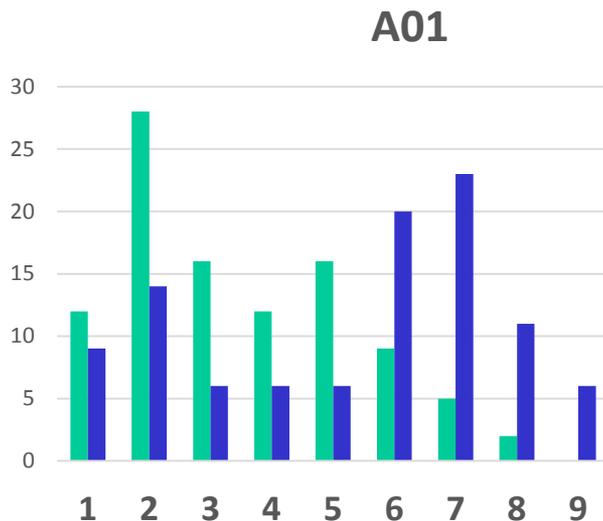
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- About half of the questions in the CDO interview guide are repeated in the GEM expert survey template. The GEM expert survey is an on-line survey, and thus very cheap and quick to administer. The GEM survey does not take the place of the CDO interview guide.
- The 2015 GEM BC provincial expert survey (PES) was directed at experts in the digital industries cluster in Vancouver. This survey is being repeated with a different panel in 2016, to increase the sample.
- The GEM results allow us to examine the ecology, in advance of our CDO interviews. The questions in the following slides were selected because the Vancouver responses gave strong Likert response frequency counts

# GEM Crossover questions (Availability of Finance)

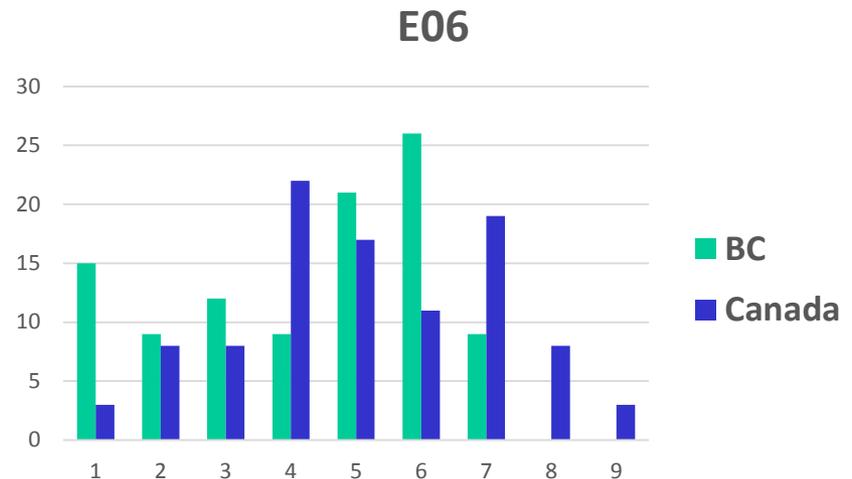
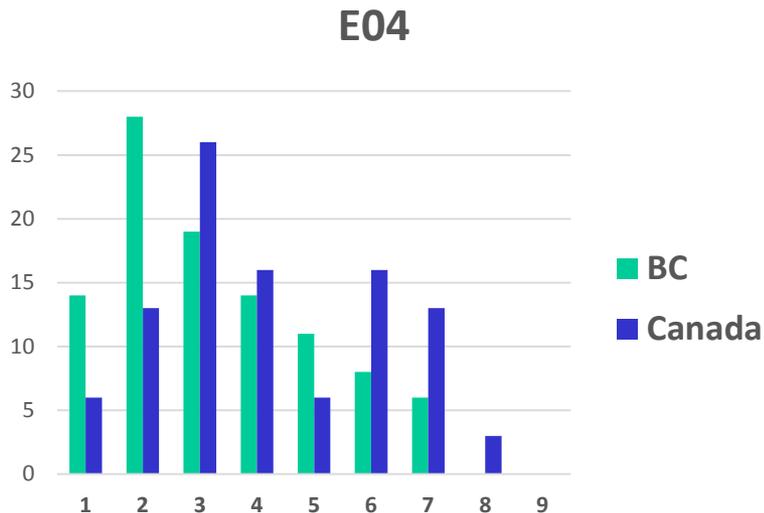
- Availability of Finance:

- In BC equity funding is available for new and growing firms (A01)
- In BC funding is available from informal investors (A04)

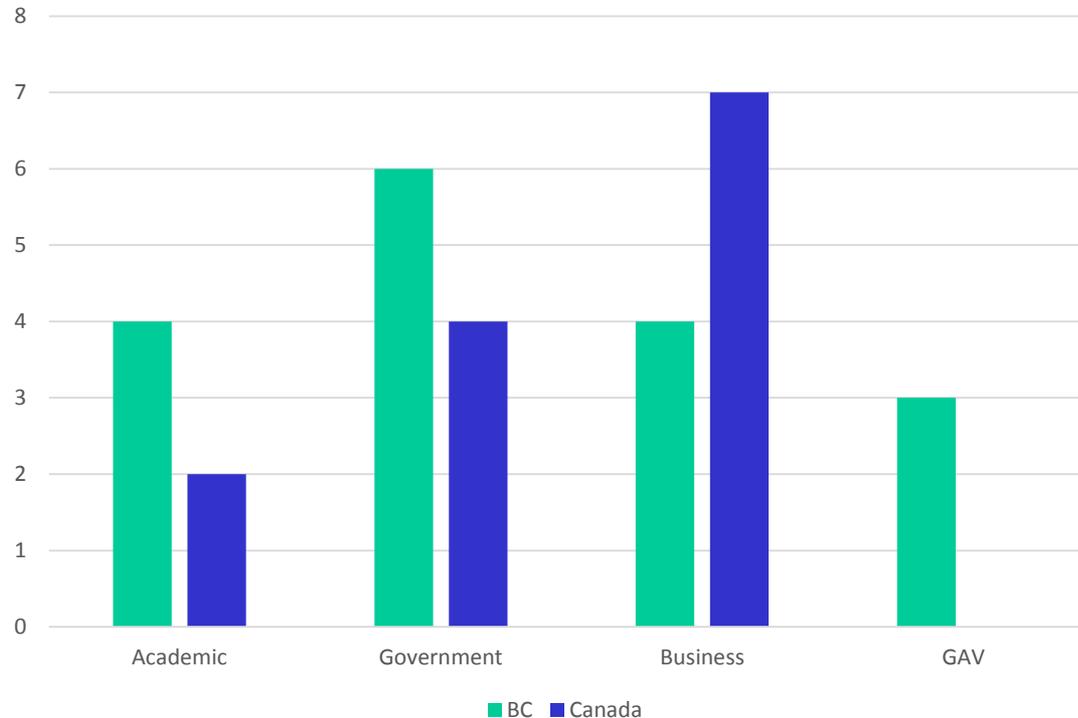


# GEM Crossover Questions (R&D transfer)

- R&D and Training:
  - In BC there are adequate subsidies for firms to acquire new technology (E04)
  - In BC there is good support available for engineers and scientists to commercialize their ideas (E06)

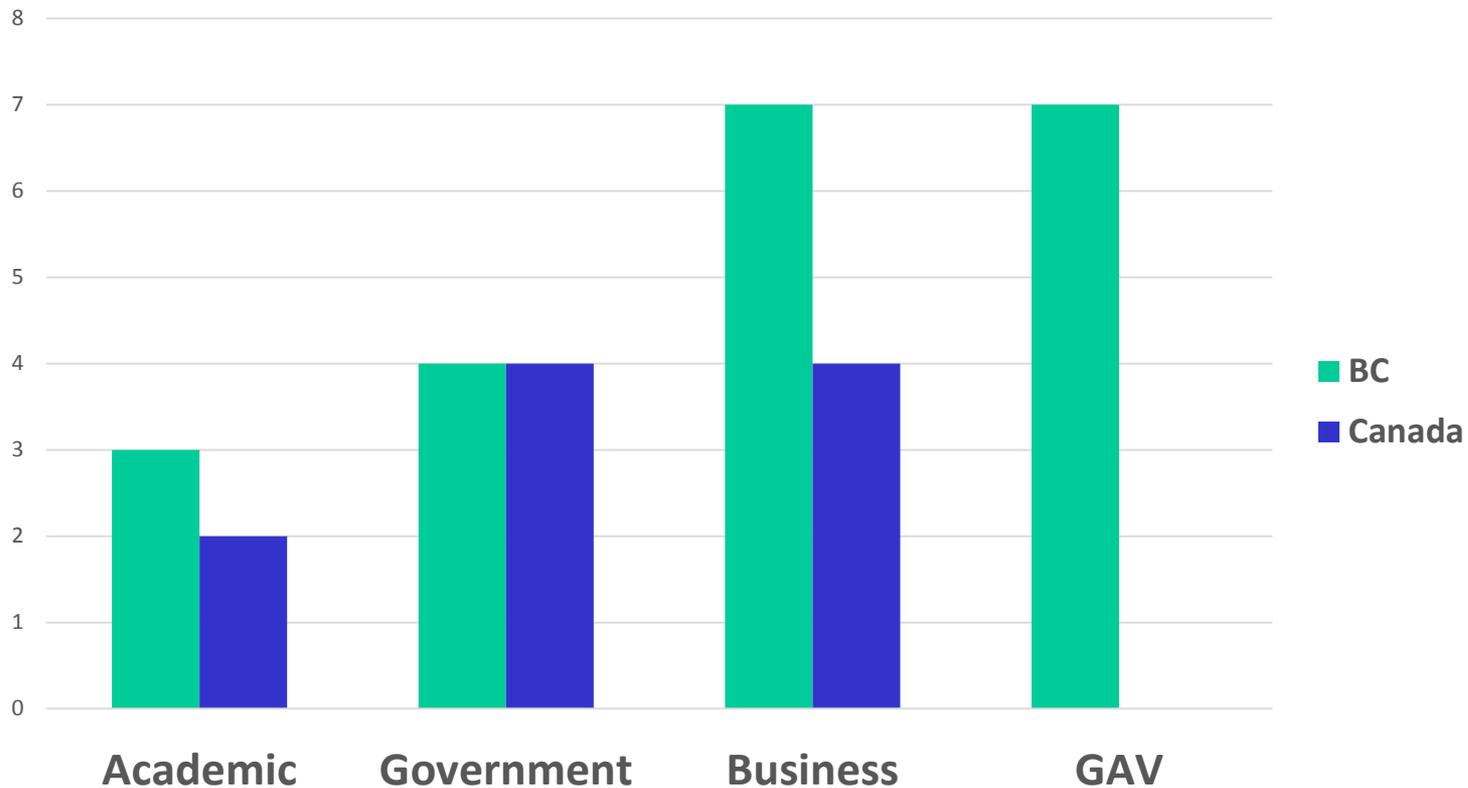


# Availability of Financing (modes, GEM group "A")



# R&D transfer

(modes, GEM group E)



# Factors – TPP, *et.al*

- Vancouver is geographically part of the Pacific Rim. It is the Pacific gateway to Canada for trade from the interior, but those industrial clusters that do flourish in Vancouver exist in the competitive environment of the Pacific Rim.
- The Trans Pacific Partnership (TPP) trade agreement will have an as yet unknown impact. Three areas of the TPP agreement stand out: intellectual property, information technologies and services.

# Local factors

- Vancouver salaries are usually lower than Toronto. So why do people stay here, even though the cost of living is higher? Perhaps because of the overall environment. But interviewees report a strong leakage of talent to the US.
- There are other downsides: housing costs and transportation problems (other than our airport train) are cited as factors
- Vancouver, and BC, has a strongly polarized (left versus right) political environment. Governments are not seen as being helpful to their citizens
- Yet Vancouver scores well on Florida's indices of attractiveness.....

# First analyses

- As can be seen, there are wide variations between the public (government and academic) and private sector in terms of attitudes towards entrepreneurial opportunities.
- Both BC and national experts agreed that, in infrastructure at least, supporting the development of enterprises was good to excellent. The differences between BC (Vancouver) and Canada are usually predictable (e.g. the availability of IPO financing – Vancouver does not have a formal stock market)
- We are also seeing evidence of IP “farming”, or IP “*maquiladoras*”; that is, foreign firms using Vancouver as a source of IP which they then take out of Canada
- Initial results suggest that the software cluster has stronger links to China than previously thought.

# Some implications for local digital policy

- It is clear that there is a divergence of opinions between private sector innovators/entrepreneurs and public sector stakeholders (both government and academic) over key issues.
- Many issues affecting the competitiveness of the digital industries in Vancouver are not directly part of the industry, but have a great impact on the “innovation community” (e.g. housing costs)
- Many of the policies that will help Vancouver maintain its competitive position will have to come from the city and the province. But Canada-wide policies will be needed in some areas, such as IP, TPP and foreign technology transfer