

The Digital Ecosystem in Vancouver

J.A.D.Holbrook , with B. Anderson, J-Y Lim, T.Mottishaw, C. Muñoz-Nieves, G. Nam,
& Y. Zhang

Simon Fraser University

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The research question: What is the ecology of the digital industry in Vancouver?

- What exactly is (was) the digital cluster in Vancouver? Not just the games/VFX/animation cluster, but other digital industries. Many digital industries do not show up in statistics – are they hidden (e.g: in mining, transportation, tourism, and fintech etc.). How big is the hidden part of the cluster(s)?**
- What are the global competitive advantages for the digital industry cluster(s) in Vancouver?**
- What are the linkages between the digital cluster in Vancouver and the rest of the global economy?**

Key findings(s)

- **Vancouver is (almost) entirely a software cluster. This cluster is all about human capital.**
- **It follows Patrick Cohendet's pyramid model of a vibrant underground economy and a formal industrial cluster at the top. The middle ground is where the top meets talent and recruits it, and the underground gets to sell its expertise.**
- **But given that the cluster is about human capital, Vancouver, and perhaps Canada in general, is pricing itself out of the global market. While Vancouver salaries are competitive, the cost of living is not. Human capital is leaving Vancouver and is only being replaced at the top of the pyramid in Canada because of US immigration constraints.**
- **The "*gig economy*" is another problem. While young talent is willing to work on short-term contracts, there are few incentives to keep middle level talent and managers; many enterprises do not offer long-term employment arrangements to most of their employees.**

Key findings(s) - continued

- Interviewees reported that the quality of talent coming from the post-secondary system is good. It provides the raw material input for the human capital needs of the cluster. The finance community is impressed with the quality of the educational system output.
- Financial capital needs are not great – software-based companies do not require major investments in fixed capital. But the conventional financial system (banks, etc.) are not perceived as being helpful, at least in Vancouver.
- Banks are reluctant to risk lending to firms that have little in the way of fixed assets. IP is not usually seen as a fungible asset. Financing is often through less traditional means.
- Knowledge transfer (the transfer of IP from universities to the business world) was not seen as being good, except for the supply of highly trained human capital.

Canada's digital economy

- **Canada's digital economy is in a precarious state. We rely on major social and environmental factors to maintain our competitiveness: life-style, environment, health-care system, educational system, etc., to attract talent.**
- **But our interviewees suggest that we are not seen as being creative. Canada is seen as a good place to live, not a place to be creative or competitive.**
- **Vancouver has good links with the games/VFX/animation clusters up and down the west coast of North America, but links across the Pacific are more tenuous.**
- **Vancouver's digital relations with the rest of North America and Europe are weak.**

Key policy implications

- **Canada must do something about making life affordable for middle income professionals. Housing in Vancouver (like Toronto) is beyond the reach of even a senior manager.**
- **Human capital is inherently mobile. Canada risks losing its human capital overseas and with it its competitive advantages.**
- **We have no coherent national strategy for one or more national digital projects (as we did with space industries and the Canadarm). The supercluster project was designed with the intention of fostering competing national projects, but instead provides a platform for selective recruitment by the digital MNEs.**
- **Canada's trading relations with the US and China are a major problem, at least as they affect digital industries in Vancouver. Our strained relations over Huawei are a good example.**