

TOPIC

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Profiting from technology

Will apps provide the boost that Ontario ICT firms – and the economy – need?

Information and communications technology (ICT) is critical to the growth of developed and successful economies. And it's an important player in the Ontario economy. But put those together and the whole

seems a lot less than it ought to be.

When the Institute for Competitiveness and Prosperity compared Ontario to the United States on machinery, equipment, and software investments

“Semiconductors cost tens of millions to develop, but apps can be made for very little. All you need is a computer and creativity.”

- Amar Varma, Extreme Venture Partners

in their Annual 2009 Report on Ontario, the province was found to be lagging. Noting that under-investment in capital lowers productivity, the Institute concluded that the main source of the gap was ICT, as Figure 1 shows.

Meanwhile, the Centre for the Study of Living Standards identified Canada's ICT sector (and by extension Ontario's) as a major source of a growing productivity gap with the U.S., where the ICT sector has been a much stronger performer.

But can the emerging world of mobile applications – apps, for short – change all that?

Ontario's ICT Sector

Ontario's ICT sector is at the centre of the Canadian sector as a whole, with R&D, export and sales activity anchored in three main regional clusters in Ontario: GTA, Kitchener-Waterloo and Ottawa.

Ontario's ICT sector:

- Enables innovation and entrepreneurship
- Creates jobs for the province's pool of talented and highly-skilled knowledge workers
- Is critical to the productivity of such other key sectors as autos, aerospace, financial services, and advanced manufacturing
- Helps Ontario address the province's health, energy and environmental priorities
- Enables Ontarians to participate in a global economy

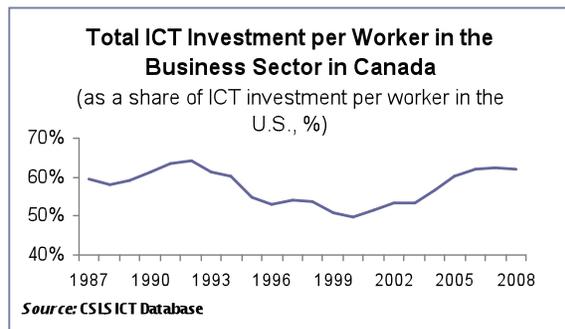
It's a possibility. First, apps may represent a highly scalable and cost-effective productivity booster. In a recent survey carried out by the Economic Intelligence Unit, 86% of respondents identified “mobile working,” including access to a hand-held device, as improving the productivity of their workforce. Mobility easily beat out all other options, including such standbys as customer analytics and enterprise resource planning systems.

Where mobility goes, apps follow

Where mobile devices go, apps inevitably follow. And while they may look like fun and games – pinpointing the nearest good restaurant or organizing photos online – apps are also starting to prove themselves as valuable tools for managing on the go.

Second, Toronto has become a centre of burgeoning growth for the emerging industry. With some of the best design and tech schools in the country, and a highly livable downtown, it is proving to be a magnet for developers, who at least initially don't need much more than a laptop, a little technical skill and a bright idea.

Figure 1.



“There has also been much stronger productivity performance in the U.S. manufacturing sector, ... particularly concentrated in the production of goods and services associated with ICT”

- Kevin Lynch, Are we ready to really compete?

Pathways to Productivity

ECONOMIC SYMPOSIUM

A recent article in Toronto Life estimated that there were 200 mobile development companies in the city and another 750 companies launching their own mobile divisions.

But will Ontario's app entrepreneurs be able to translate good ideas into real products for business? And if they do, will Ontario companies be willing to buy?

While there are many thoughts about how to answer that first question, the answer to the second is far more elusive.

Mixed prospects

Based on past performance, the prospect for stronger ICT investment can only be regarded as mixed. Recent data suggest improved performance. Between

2002 and 2007, however, at least two major banks found evidence that investment in machinery and equipment and ICT was poor, despite what might have been strong incentives.

Taxes fell, and the Canadian dollar appreciated

by 40%, making it cheaper to invest in imported capital goods. Corporate retained earnings growth averaged 15% a year between 2003 and 2007.

In addition, according to BMO Capital Markets Economics in 2010, Canadian businesses have had lower debt ratios and higher savings relative to businesses in the United States since 2000. Before-tax corporate profits as a share of GDP in Ontario and Canada were, on average, higher over the period 2000-2007 than 1990-2000. They were also higher relative to the U.S. in both of these periods.

None of this, however, translated into higher investments in new machinery and equipment and ICT. Although investment relative to the U.S. has trended up recently, it is still below the levels of the early 1990s.

And as for whether corporate Canada will be big customers for the products of Ontario's app developers, the experience of one successful company may point to the answer: Polar Mobile, one of Toronto's fastest growing new companies, builds apps and develops software for 150 clients in 10 countries. Most of its clients, however, are in the U.S.

"There is mounting concern that the ICT sector is losing ground and needs to 'up its game' if Canada wants to remain a player in the global digital economy."

-Growing the ICT Industry in Canada, 2010

In the zone...

App start-ups have relied heavily on the nexus of tech skills and leading-edge design thinking in Toronto.

- Founded in 2007 by OCAD University, the Mobile Experience Innovation Centre (MEIC) is currently engaged with 14 Ontario universities and colleges and more than 150 businesses and a dozen partner organizations. MEIC focusing on supporting start-ups and early-stage entrepreneurs, commercializing research, and national and international advocacy to create a strong framework in the fragmented mobile industry.
- Ryerson University's Digital Media Zone provides a place for student entrepreneurs to create start-ups. It has attracted more than 90 participants who have initiated more than 25 projects and 14 new companies. In addition, the Ryerson Entrepreneur Institute is a university-wide program that helps students, alumni and others to start and grow new businesses. The only student-run organization of its kind, it was awarded a 2010 Urban Leadership Award by the Canadian Urban Institute.

Resources:

- Council of Canadian Academies: Innovation and Business Strategy: Why Canada Falls Short
- Coalition for Action on Innovation in Canada: An Action Plan for Prosperity
- Centre for the Study of Living Standards: Six Policies to Improve Productivity Growth in Canada
- Hu Centre for Business Research, University of Cambridge: ICT and Productivity Growth — The Paradox Resolved? - Working Paper No. 316
- Bank of Canada: Contribution of ICT Use to Output and Labour-Productivity Growth in Canada – Working Paper
- Munk School of Global Affairs (University of Toronto): Growing the ICT Industry in Canada: A Knowledge Synthesis Paper
- Centre for the Study of Living Standards Research Report: ICT Investment and Productivity: A Provincial Perspective
- "The App Kings," Toronto Life, November 2010
- "Gearing for Growth: Future Drivers of Corporate Productivity," Economist Intelligence Unit

"In the second half of the 1990s, productivity growth in the ICT-producing sector was around 11 per cent a year. Since 2000, it has fallen 1 per cent per year."

-Centre for the Study of Living Standards, 2005