

COMPETITION

Canada, like Steve Jobs, should zero in on innovation

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Special to The Globe and Mail

Published Sunday, Nov. 20 2011, 7:20 PM EST

Last updated Monday, Sep. 10 2012, 10:47 AM EDT

In the wake of the tragically premature demise of Steve Jobs, it seems appropriate to ask: What can Canada learn about innovation from the career of Steve Jobs? I think there are two important lessons that we could take away.

The first lesson is that commercial success and impact is more about innovation than about invention. Invention is the creation of some new-to-the-world technology, molecule, material, or formula. It is typically the product of the curiosity of a scientist. It can be pretty earth-shattering when it is electricity or insulin. But it can be pretty irrelevant when it is a technology in search of a user.

For Steve Jobs, it is difficult to find much related to Apple Inc.'s success that was about invention. Certainly none of the mouse, the touch screen, the MP3 player, the smartphone or the extra-big smartphone (i.e. tablet) qualifies. It is hard even to argue that Apple invented the personal computer, unless the massive parallel simultaneous invention by numerous hackers in the nascent Silicon Valley counts.

Innovation, on the other hand, entails starting with users, obsessing about their experience, and being dedicated to creating unique improvements to it that delight them, even if they never asked for or expect them. Xerox PARC invented the mouse, Bill Buxton and others invented the touch screen, and Research In Motion Ltd. invented the smartphone; all inventions that Mr. Jobs cobbled together to make the Macintosh, iPod, iPhone and iPad. But they were cobbled together in the most magical ways with the user, rather than the scientist, at the centre of the picture.

The second lesson is that successful innovation actually means trying things that are unproven – optimally that have never been tried before. Apple's biggest successes derived from doing positively unproven things – like controlling a PC with a mouse, like twinning iPod with iTunes, like twinning

iPhone with the App Store, like creating the tablet. Apple couldn't analyze and benchmark the success of somebody else who had done these things already to demonstrate that the idea would succeed. Apple had no chance of knowing that they were going to have absolute smash hits on their hands. That is what is required for innovation – otherwise they would call it something else, replication perhaps.

What would Canadian governments do if they took these two lessons to heart?

First, they would recognize that they have invested enough in invention. There is nothing whatsoever to suggest that pushing harder on the government-funded invention button is going to produce more innovation in Canada. Our government investment in R&D is already higher (adjusted for country size) than that of the United States, despite the U.S. being 15-per-cent richer than we are.

The job, instead, is to increase focus on boosting our capacity for innovation – for truly understanding users and figuring out entirely new ways to delight them. When we produce more customer delight, we will grow more large and prosperous businesses that create high-paying jobs and generate tax revenues for our governments to invest.

Second, they would commit to innovation in innovation policy. Rather than innovate, Canadian innovation policy pretty much benchmarks what is done elsewhere, and does it here. If the National Institutes of Health in the U.S. appears to be a success, then we restructure the Medical Research Council to become the Canadian Institutes for Health Research. If other jurisdictions have Centres of Excellence, then we decide to have some of those too. If Israel has a Chief Scientist, we get one of those too. And we operate them all as close to the success models elsewhere as possible.

We can benchmark and replicate until we are blue in the face. While there is no shame in incorporating others' inventions – as Mr. Jobs did with the mouse, touch screen, etc., let's stop thinking that incorporating others' inventions exactly as they have been done elsewhere will produce uniquely attractive results.

Let's remember that some of the most effective policy moves Canada has ever made were unique – they were actually innovative, like creating national parks, establishing socialized health care, indexing tax brackets to combat bracket creep and setting strict inflation targets to guide monetary policy. We didn't benchmark and replicate; others were left to do that while we prospered based on the policy innovation.

So let's do something unique that is in keeping with a century that is going to be more about innovation than we have ever seen. With global competition and low-cost jurisdictions like China, India and Brazil more quickly than ever before replicating and producing at lower costs everything we do, we need to be an innovation nation. Let's become the first nation on the planet to have universal education in innovation by explicitly and clearly teaching innovation in the primary and secondary school system.

Think about how very little of K-12 education currently is at all about innovation. That has never been its focus. Its focus is about teaching our young people what is; not what could be. Arguably that

was fully appropriate for a given place and time, but just as arguably it is no longer a sensible mix for this place and this time.

If it seems farfetched and undoable, think again. One particularly clever nation, Singapore, is currently piloting secondary school innovation pedagogy – designed and taught by Canadians from the Rotman School of Management. We can create an innovation nation, if we take a couple of lessons from Steve Jobs.

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