

Letter

<https://appliedcomputing.ca/>

The Honourable Evan Solomon
409 Parliament street
Toronto, Ontario
M5A 3A1

Dear Mr. Solomon,

RE: Canada Needs a National Research Institute to Stop the “Brain Drain”

All my friends are geniuses and they’re leaving Canada.

I’m a soon-to-graduate PhD student in Computer Science at the University of Toronto. Like many of my colleagues, I’m disillusioned with the current state of the research and technology ecosystem here. We spend upwards of six years developing our skills here in Canada developing the latest advances in computing, only to find that there’s nowhere in Canada to meaningfully apply them after we graduate.

I came here from the United States, and like many of my colleagues, I *want* to stay here, but frankly speaking, the options are barren compared to elsewhere. This isn’t just the sentiment of graduate students; I’ve seen it firsthand during my internships at U.S. tech companies including Google, Amazon, Nvidia, and Adobe. Students from the University of Waterloo (who you’ll often encounter at those internships) have a saying: “*California or bust.*” This should not be the case.

Canada has produced some of the world’s top researchers. Two of the three “Godfathers of AI”—Geoffrey Hinton and Yoshuo Bengio—are Canadian. Why, then, isn’t the expression “*Canada or bust*”?

Canada is missing the environment that once fostered Bell Labs – the birthplace of the transistor and laser – and Silicon Valley – the continued home of computing innovation in the age of AI – both of which were built on decades of sustained government investment in research and education. Canada has shown this ambition before: Nortel and BlackBerry invested heavily in R&D, and Avro Canada positioned Canada as a world leader in aerospace. But when these institutions collapsed, much of that talent flooded south, leaving a lasting gap in Canada’s tech ecosystem.

To rebuild that foundation, Canada needs a national, independent research institute dedicated to advancing computer science, engineering, and emerging technologies – one that attracts and retains top talent while transforming long-horizon research into tangible technologies, nurturing Canadian-owned startups, and fueling the growth of domestic industries. The goal is not just to invent the next breakthrough, but to ensure it is developed, built, and scaled in Canada, securing our leadership in AI, cybersecurity, and other emerging technologies.

Existing programs like CIFAR, the Vector Institute, and Mila are vital, but they function more as granting agencies or university affiliates as opposed to centralized research organizations. A national institute built for applied discovery would bridge deep research and real-world innovation, generating long-term value for Canada. International examples such as France's Inria and Germany's Max Planck Institutes demonstrate how sustained public investment yields patents, startups, as well as industry partnerships.

This is an ambitious goal, but it meets the magnitude of the challenges Canada faces right now: productivity stagnation, and the race to lead in AI, robotics, and sustainable tech. As the government invests in infrastructure, it's equally important to invest in its people and institutions that give our brightest minds a reason to stay. Too long has Canada served as a stepping stone for the brilliant. It should be their permanent home.

Me and my friends (who are the next Hinton and Bengio) want to stay in Canada, but we need your help to do it. We'd love to meet and share our ideas for how this institute will make it happen.

Best,
Ty Trusty, PhD Student, University of Toronto

And friends,
[Sign here](#)

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