

Opinion

The Trump effect: It's Canada's moment to win the global race for talent

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Google's Sidewalk Labs subsidiary has apparently chosen the Toronto waterfront as the place it will create a veritable city of the future, developing and prototyping new technology-enabled ways of working, living and getting around. And Toronto is placed at or near the top of many short lists for Amazon's new second headquarters, over which more than 50 communities across North America are competing.

Why have Toronto, and Canada more broadly, suddenly become so attractive to major U.S. tech companies? The election of Donald Trump may be the veritable tipping point, but Canada's ability to compete for top global talent has been growing for a while.

The United States dominated the competition for global talent for a century or more. Indeed, foreign-born entrepreneurs created roughly a quarter of U.S. tech startups and more than 40 per cent of Silicon Valley startups founded over the past decade or so, including Canadian entrepreneurs such as Uber co-founder Garrett Camp and Flickr's Stewart Butterfield.

But, Mr. Trump's moves to crack down on immigration, kick the children of illegal immigrants out of the country and build a border wall with Mexico make the United States look far less attractive to top talent. And that is a veritable gift to Canada.

This shifting global talent advantage can be best seen in the field of artificial intelligence, which promises to revolutionize the way we live and work. Not a single one of the six leading scientists and technologists in this field was born in the United States; just two are currently based there. Two key figures are based in Canada. The University of Toronto's Geoffrey Hinton, perhaps the leading figure in the entire field, left the United States for Canada during the 1980s because he did not want his research funded by the U.S. military. Google literally followed Mr. Hinton, building a lab for him in Toronto. Likewise, Microsoft (and more recently Samsung) established a new research facility for the University of Montreal's Yoshua Bengio.

They're not the only ones. Facebook recently opened a new AI lab in Montreal to be led by McGill's Joëlle Pineau. Google's DeepMind – a leading-edge tech company that uses AI to think more like humans – established another research facility in Edmonton to be close to the University of Alberta's Rich Sutton, who pioneered a form of AI called reinforcement learning, which helps machines determine ideal behaviours for specific environments. And, Uber established a facility in Toronto to be close to the University of Toronto's Raquel Urtasun, an immigrant from Spain who is one of the world leaders in getting machines to see and understand the environment around them, a key technology for driverless vehicles.

Canada's universities invested in AI and machine learning research when it was out of favour at U.S. and European schools. Indeed, Canada's universities have been quietly building their global stature in science and their ability to compete for the best and brightest. The University of Toronto, where we both teach, now numbers among the world's top 25 universities, and is one of the top 10 publicly funded schools with one of the best computer science programs on the planet.

Universities are powerful magnets for global superstar talent. This is why the U.S. venture capitalist John Doerr once said universities should staple a green card to the diplomas of every one of their foreign graduates. Today, roughly 10 per cent of Canadian students <u>are foreign-born</u>; that figure climbs to 25 per cent in major metropolitan areas such as Vancouver and Toronto. And foreign student applications are up by 70 per cent at the U of T, 30 per cent at McGill, 25 per cent at UBC, and more than 20 per cent at many other Canadian universities. Canada's cities provide considerable advantages in attracting global talent. They routinely rate among the world's best places to live, with Vancouver ranking third and Toronto fourth on The Economist's list of the world's <u>most livable cities</u>. Canada's cities are among the most open and diverse in the world. Immigrants make up 45 per cent of Greater Toronto's population and 40 per cent of Greater Vancouver's, compared with 35 per cent in Silicon Valley, and about a third in Los Angeles and San Francisco.

Canada's cities are no economic slouches either. Toronto <u>ranks seventh</u> among global banking and financial centres, second only to New York in North America. Montreal and Vancouver are among the top 20 and all three have concentrations of knowledge workers and the creative class that rival leading U.S. cities.

While the San Francisco Bay Area, New York and Boston remain the world's leading high-tech centres, Canada's cities have upped their game substantially. In 2016, Toronto and Waterloo combined to attract nearly a billion dollars in venture capital to their startup companies. , putting them in the same league as Seattle, Washington, D.C., Austin and San Diego. Montreal attracted more than \$600-million in venture capital, on par with Dallas and Salt Lake City, while Vancouver pulled in more than \$300-million. , similar to Nashville and Portland.

For decades, the United States was seen as the land of opportunity, drawing leading global talent to its great cities. Mr. Trump's rise has changed all of that. While he tells immigrants they are no longer welcome, Justin Trudeau welcomes Syrian refugees to Canada. While the American border closes, Canada builds centres for refugees streaming in from the U.S.

As the U.S. global brand wanes, Canada's grows in stature. Many things point in Canada's favour, but the country and its cities can't rest on their laurels. The competition for global talent is a long, hard game. It will take sustained work to turn Canada's talent opportunity today into real and lasing advantage for the future.