

STACKING UP: A SNAPSHOT OF CANADA'S DEVELOPER TECH TALENT

New research unlocks understanding of developers, a critically important sector of the Canadian innovation economy

TORONTO, December 5, 2017 – Canadian software developers are key contributors to our country's technology-driven economy. Yet, Canada has not had an accurate picture of its software developer talent—until now.

In an extensive new report, the [Brookfield Institute for Innovation + Entrepreneurship](#) (BII+E) at Ryerson University has partnered with [Stack Overflow](#), the world's largest software developer online community, to better understand this influential group that forms the technical backbone of organizations, large and small, throughout the country.

The report, released today and entitled [Stacking Up: A Snapshot of Canada's Developer Talent](#), suggests that Canada has one of the largest populations and highest concentrations of developer talent globally. Toronto's developer community also emerges as one of the biggest and fastest growing within Canada and around the world.

“We know that Canada's tech sector is a driver of innovation and economic growth” said Sean Mullin, Brookfield Institute for Innovation + Entrepreneurship Executive Director. “Yet the lack of data at the developer level has prevented a complete understanding the range and depth of this increasingly important sector—upon which thousands of Canadian businesses rely.”

Stacking Up complements and supplements Statistics Canada data by drawing from the 2017 Stack Overflow Annual Developer Survey of over 50,000 developers worldwide, as well as traffic to Stack Overflow's website. The survey provides insights into education level, salary, scope of work, as well as other key employment, demographic and geographic distribution information. It allows readers to better understand the Canadian developer landscape, including how they work, how to recruit them and how they compare to developers around the world.

“As the online resource where developers go to learn, share their knowledge and find jobs, we're seeing tremendous growth in companies trying to attract developers, especially across North America,” said Michael Dillon, Country Lead, Stack Overflow. “Developers are the backbone of a growing tech economy. We're pleased

to partner with the Brookfield Institute to shed light onto an important segment of the tech sector and to help employers as they compete for top developer talent.”

Report Key Findings:

- Canadians accounted for 4.4 per cent of developers in the 2017 Annual Developer Survey, making Canada the fifth most represented country in terms of developer talent globally.
- Toronto represented over 32 percent of Canada’s developer talent pool, according to Stack Overflow web traffic data. Montreal and Vancouver ranked second and third, respectively, and collectively accounted for nearly 30 percent of Canadian developers.
- Internationally, Toronto ranked 13th among all cities in terms of number of developers and 5th in terms of the growth of its developer community over the past year, based on Stack Overflow web traffic data.
- Developers are highly educated and command a much higher salary than the rest of the Canadian labour market. A median of C\$70,000 was reported in the 2017 survey, compared to C\$45,280 in 2016 for the Canadian labour market as a whole.
- Developers work across the economy. While 40 percent of Canadian survey respondents were in the software and internet or web services industries, the majority work outside these industries, for example, in finance, media and healthcare.
- 95 percent of professional developers in Canada have received at least some college or university education, according to the 2017 survey.
- Less than 10 percent of Canadian developers are female. However, we may be seeing a positive trend, with the ratio of male to female developers decreasing from roughly 17-to-1 in the 2015 survey to roughly 10-to-1 in the 2017 survey.
- The industry lacks diversity. The vast majority (83 percent) of Canadian developers surveyed identified as white, or of European descent.

Also included as part of the report is a [data visualization map](#), which allows viewers to explore the report’s key findings.

Stacking Up builds upon the insights revealed in the Brookfield Institute’s previously released report, [The State of Canada’s Tech Sector, 2016](#), which used an expanded definition of Canada’s tech sector to shed light on its growing reach and economic impact.

Sean Mullin added, “For decades, business leaders and policymakers have relied on traditional labour market information sources that can fail to accurately capture specific technical skills that are critical to success in an information economy.”

Stack Overflow’s Developer Survey is an annual, voluntary, English-language survey. In 2017, 51,392 developers were surveyed worldwide, of which 2,223 were from Canada.

The Brookfield Institute for Innovation + Entrepreneurship (BII+E) is a new, independent and nonpartisan institute, housed within Ryerson University, that is dedicated to making Canada the best country in the world to be an innovator or an entrepreneur. BII+E supports this mission in three ways: insightful research and analysis; testing, piloting and prototyping projects; which informs BII+E's leadership and advocacy on behalf of innovation and entrepreneurship across the country. For more information, visit brookfieldinstitute.ca.

Ryerson University is Canada's leader in innovative, career-oriented education and a university clearly on the move. With a mission to serve societal need, and a long-standing commitment to engaging its community, Ryerson offers more than 100 undergraduate and graduate programs. Distinctly urban, culturally diverse, and inclusive, the university is home to more than 41,500 students, including 2,400 master's and PhD students, 3,200 faculty and staff, and nearly 170,000 alumni worldwide. Research at Ryerson is on a trajectory of success and growth: externally funded research has doubled in the past five years. For more information, visit ryerson.ca.

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