

Canada's Polytechnics Represent Disruption in Action

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Polytechnics Canada

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It seems everywhere you look, people are talking about transformation in Canadian workplaces. Robots, driverless cars and Internet-enabled machines are changing the nature of work.

An aging population is putting unprecedented pressure on health-care services and leading to shortages in sectors where retirements are outpacing available young people with the necessary skills.

The world around us is in a state of constant reinvention, with new fields, new equipment and new skill requirements emerging at a dizzying pace.

When one is confronted with change of this magnitude, agility becomes critical. It's here that polytechnic institutions shine. They're intimately connected to industry and have a proven ability to respond quickly to emerging requirements. Education is practical, technical and hands-on—and there's little room for complacency. Disruption: embraced.

When disruption is expected and welcomed, interesting things happen. Partnerships are formed across institutions and across borders.

The Humber-Seneca Polytechnic Partnership, for example, establishes transfer pathways between the two institutions' diploma and degree programs, as well as opening the door to shared curriculum and expanded program offerings.

Fanshawe College has established a formal partnership with the Institute of Technology Sligo in

Ireland to conduct collaborative research and exchanges, with projects focused on the medicinal use of honey and concrete additives. Polytechnics Canada's 13 members are working together to mutually recognize student employability skills through shared micro-credentials.

Disruption fuels change at the institution level.

At Algonquin College, faculty and staff are using lean management principles to drive employee engagement and inspire innovation. Daily huddles, visual management and scientific problem-solving have become a part of the college's culture.

At Saskatchewan Polytechnic, program design and quality assurance processes take into account employability skills, work-integrated learning, applied research and Indigenization of curriculum.

Red River College has established a new internal funding program to support interdisciplinary projects at the institution. The Strategic Transformation & Applied Research fund will support initiatives related to academics, applied research and college-wide improvements.


All three examples illustrate how polytechnics are embracing disruption from within.

Disruption is also at work in the classroom, giving students a safe space to make—and learn from—their mistakes while instilling confidence in their skills.

At the Southern Alberta Institute of Technology in Calgary, classes as diverse as radio production, automotive service and power engineering use studios, simulators and industry-grade equipment to put theory into practice.

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Within George Brown's Community Services and Health Science programs, students are designing and implementing simulated field experience models that integrate gaming concepts into the classroom.

Conestoga College is using augmented and virtual reality to prepare students for a world of work that increasingly uses these technologies.

Within its Public Safety program, Sheridan has embraced interdisciplinary learning and a zero-textbook approach designed to enhance the adaptability of students.

Beyond the classroom, polytechnics have become centres for business innovation. Businesses and non-profit organizations alike benefit from facilities, equipment and expertise to drive experimentation and support next-generation product development.

For example, on the British Columbia Institute of Technology campus, their Smart Microgrid Initiative puts solar power to the test. Not only can students and staff power their electric vehicles, but utility companies, technology providers and researchers can experiment with the evolving Smart Grid.

The Northern Alberta Institute of Technology in Edmonton has recently opened a state-of-the-art Productivity and Innovation Centre to help companies evolve and compete. Flexible space can be reconfigured depending on the nature of the requirement.

At Kwantlen Polytechnic University, an 8.1-hectare organic research farm gives growers, researchers and students opportunities to advance organic production practices, develop better crops and produce high-quality seed.

Much like the world of work these institutions' talent pipelines are designed to serve, across the polytechnic community, disruption is a day-to-day reality. By creating an environment that thrives on change and reinvention, polytechnics give students the opportunity to learn both workplace-relevant skills for today and the agility to embrace change as it comes.

Don't take my word for it—one only has to visit a polytechnic campus to see disruption in action.