

Have a complex business conundrum? Hire an intern

Internships are getting organizations at all levels to consider how research can solve their operational challenges

By Curt Cherewayko

Does your business have a certain technological or operational conundrum that you simply haven't been able to solve? A university student may have the solution.

From weekend-long scrum competitions to lengthy internships, more and more post-secondary students are being asked to solve complex and real problems for real businesses.

In the process, they're abolishing the stereotype of the go-for-coffee internship and bridging the gap between academia and industry that some believe has led Canada to fall behind in efforts to build a knowledge economy.

"The perception of an internship is that it's a young person, bright-eyed, who shows up at a company and is given menial, meaningless tasks to do," said **Rachel Lewis**, who graduated from the master of management in operations research (MM in OR) program at UBC's Sauder School of Business last December.

Last summer, Lewis worked with the **Rick Hansen Institute (RHI)** as an intern in a five-month project that "addressed a significant operational issue" at the institute and capped the 16-month MM in OR.

But Lewis is now working full time for the institute on a two-and-a-half-year project that is an extension of another project a student colleague of hers in the MM in OR program also conducted with the institute last summer.



DOMINIC SCHAEFER

Stephen To, senior consultant, Deloitte & Touche LLP was a member of the university team that won the CaseIT competition in 2007 - one of a number of programs that get university students solving complex operational problems for businesses

In that pilot project, **Argelio Santos** tracked and analyzed how spinal cord-injury patients receive health care - right from the emergency care they initially receive at the site of their injury to acute care to discharge.

The project tested whether a modelling technique known as discrete event simulation would improve the delivery of care to spinal cord-injury patients.

Now Santos and Lewis are expanding the pilot project in order to track and improve the delivery of care across RHI's dozen or so facilities across Canada.

A handful of employees at RHI are working on the project on a part-time or near-full-time basis.

Discrete event simulation is commonly used in health care but it is rarely conducted beyond a single department

within a single institution, let alone across a number of departments in a number of facilities.

"The goal is to understand how spinal cord-injury care is delivered across Canada," said Lewis. "The big, big goal is to reduce waiting time and improve people's functional outcomes."

The project is one of 80 partnerships between students and corporations that

have been facilitated by Sauder's Centre for Operations Excellence (COE) since 1998.

Arvind Gupta leads a similar program to that of COE called **MITACS Inc.**

Such programs, said Gupta, get businesses and organizations at all levels thinking about how research can solve operational problems.

He added that applying research to businesses, be they small businesses or large corporations, is one way Canada can pull itself out of its innovation rut and wean itself off its dependence on resources.

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- Arvind Gupta,
CEO,
MITACS Inc.

MITACS, which is a federal program, seeks out organizations and asks them to provide business problems or challenges. It will then try to find a student at a Canadian university to tackle the issue through research.

Students can come from any discipline.

For example, Kelowna's **Enquiro Search Solutions Inc.**, which conducts search-engine marketing, had a psychology student research how different products are encoded in the memory.

It was high-level research, but applicable to a company like Enquiro that is involved in brand promotion.

"Its not just about getting kids out there; the idea is that we want companies to understand and to utilize

high-quality high-level research in their operations," said Gupta.

"If they don't see that having a student come in and work for eight months with them on a research problem is going to have an impact on their business, they're not going to buy into research the way we want them to."

Simon Fraser University hosts an annual competition called **CaseIT**, in which students spend a weekend solving a complex IT problem presented by a business.

The competition began in 2004 as a small internal event at SFU, but has grown to include participants from 16 universities around the world.

This year, **IBM Canada** presented students with a challenge involving its cloud-computing infrastructure.

The **Chief Information Officer Association of Canada (CIOCAN)** is a major sponsor of the event in order to encourage more students to enter IT professions.

"There just aren't enough students in post-secondary institutions focusing on this as a career path," said **Ian Banks**, CIOCAN's Vancouver chapter president.

"It's a little surprising for those of us in the field that there still is this misperception that getting into an IT career means you're developing code all day - but that couldn't be further from the truth."

Stephen To, a senior consultant at **Deloitte & Touche LLP**, was a member of the university team that won the CaseIT competition in 2007.

The competition helped him get his foot in the door into a career in IT and he still connects with the international network of contacts made up of other coaches, competitors and professors that he worked with during the competition. ■

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