

One eye on the future

Curious about the future of technology and eager to network with leaders of high-tech companies, Waterloo students organized the first-over Canadian Undergraduate Technology Conference.

by Renee I.A. Mercuri

It is not every day that an undergraduate student gets to talk one on one with the CEO of a major company. But then it is not every day that students pull off a feat like the Canadian Undergraduate Technology Conference (CUTC).

In March 2000, more than 125 students from 18 universities across Canada converged on campus, curious about the future of technology and eager to network with leaders of high-tech companies. They came from as far away as British Columbia and Nova Scotia. Speakers and workshop leaders from high-tech businesses across the country arrived, and more than a dozen companies set up information booths in Federation Hall.

Conference co-chair Jon Kwan, a computer science student at the University of Waterloo, claims he didn't come up with the idea for CUTC - "he" stole it from pharmacy students at other

universities who run their own annual conference for undergraduates. Given the strong demand for graduates with high-tech skills, Kwan felt certain that employers would jump at the chance to meet students interested in the future of technology. And he was sure that students would welcome a chance to network with other like-minded students from across Canada.

Although the premise of CUTC may be borrowed, the success of the first Canadian Undergraduate Technology Conference was the result of sheer ingenuity and a heck of a lot of hard work. "What started out as a pie-in-the-sky concept turned into something substantial," remarks Christine Cheng, BAsC '99, who was president of the Federation of Students at Waterloo ("the Feds") when the conference took place.

Cheng played an essential role in giving CUTC a tangible shape. As she began her duties as Feds president, Cheng was contemplating how she was going to see through some of the things promised in her campaign platform. In particular, she had proposed staging a conference for students focussing on technology-based issues, an area she was familiar with as a systems design engineering student. But who could she find to chair such an undertaking?

Kwan, meanwhile, had approached his friend Ming-Yee lu, another computer science student, with his idea about organizing a technology conference at the University of Waterloo. lu thought it was a good idea and was thus,

Jon Kwan (top) was sure employers would jump at the chance to meet students interested in technology. His co-chair, Ming-Yee lu (bottom) agreed.



according to Kwan, "the first one to get suckered in." He became Kwan's co-chair, shouldering much of the behind-the-scenes work while Kwan took on the role of conference spokesperson. •

Feds vice-president Veronica Chau, an arts student, provided the link between Kwan and Cheng, and in May 1999, Kwan, Lu, and Cheng sat down with members of the engineering and math societies to form the initial planning committee for the CUTC. No one was yet sure if this pie-in-the-sky idea would fly or simply end up as a pie in the face.

As it turned out, Feds involvement was pivotal in getting the conference ball rolling. Cheng is proud of the fact that they were able to help the conference committee find volunteers and set up an office. Most important, they gave credible backing to an unknown group of students trying to do such things as book rooms and enlist the support of people on campus. One of the first groups the organizers approached was the co-op department, which was very supportive of the idea. A strong industry presence would be essential to the success of the conference.

In these preliminary stages, Kwan was careful to clearly articulate his vision for the technology conference: to bring together Canadian undergraduates seeking expert guidance on their careers and industry experts wishing to engage with and motivate the future labour force. He wanted to be sure the conference appealed to undergraduates in every faculty, not just students in computer science and engineering. "Technology impacts on all facets of society," he says.

Funding this ambitious vision proved easier than might have been anticipated. The CUTC sponsor ball got rolling when Nortel Networks' on-site manager spotted an ad in the campus newspaper looking for volunteers to help with the conference. In the end, IBM, Sybase, and RIM put their chips on the table along with Nortel.

By the fall of 1999, 70 people were involved in developing Kwan's vision, including students from almost every faculty at Waterloo. Volunteers were

divided into teams responsible for ironing out the details of items such as promotion and public relations, logistics, registration, and social events, as well as organizing workshop speakers. This was the first time many of the students had tackled a project of this scope and potential impact. "The level of commitment expressed by some of these people who weren't being paid a cent and really had nothing to gain was truly impressive," comments computer science student Bruce Lee-Shanok, leader of the logistics team.

Registration was under way by early February 2000. As the date of the conference approached, a cover story in the student newspaper brought CUTC to the attention of many more students on campus. More volunteers were recruited to help with some of the final details. Rooms, equipment, and speakers were booked. Publicity had been taken care of. Deans of various faculties on campus had provided subsidies for Waterloo students interested in attending. Everything was a go.

The conference featured talks by key people in high-tech companies and a series of workshops, divided into five tracks: The Internet, Next Generation Hardware and Software, Graphics and Multimedia, Social Issues, and Entrepreneurship and Innovation. Undergraduate delegates were given the opportunity to present their own research or give a talk, an ideal practice session for future speaking engagements, and a technology exposition allowed students to network with industry representatives.

Among the keynote speakers and workshop leaders were several people with Waterloo connections, including Ka-Ping Yee, a recent computer engineering graduate (BASC '98). Although he works with Hollywood's most reputable special effects house, Industrial Light and Magic, Yee is quick to dismiss this as his day job. Besides nanotechnology, his real interest is in considering what kinds of "sweeping effects technology is likely to have on our society in our lifetimes." His presentation focused on the need for longer time

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horizons to see how far technologies involved in areas such as genetics and manufacturing can really go.

Former Waterloo student Mike Lazaridis, founder of Research in Motion (RIM), decided to forgo his keynote address in favour of a question and answer session, concluding with a number of questions of his own: How can focus expand your vision? How can patience



Students had a chance to network with representatives of more than a dozen high-tech companies who set up booths in Federation Hall.

accelerate your opportunity? How can there be infinite value where there appears to be nothing? His reply was a picture from the Hubble Telescope. The picture, he explained, was from a region of space where nothing appeared to be happening. After weeks offocussing the high-powered telescope on this region, images of dozens of small points of light were collected. To the surprise of astronomers, these were not stars but numerous galaxies. "Focus on something no one else thinks is important," he advised his audience.

Another speaker with a Waterloo connection was computer science professor Prabhakar Ragde, who focussed on the consequences of unleashing technology on society. "We can't articulate what we want from technology without a serious examination of what we wish to preserve and what we wish to change," he cautioned. He encouraged workshop attendees to consider the implications of the technology they design.

At the closing banquet at Federation Hall, Waterloo grad Ian Goldberg, BMath '95, chief scientist (or as he

prefers, head cypherpunk) at Montreal-based Zero-Knowledge Systems Inc., spoke about security and privacy issues, particularly on the Internet. Existing technology allows easy access to information about Internet users and their habits, he noted. He plotted the extremes of anonymous and public knowledge on a "nimity slider," then urged his audience to consider "not only performance, correctness, and security but also privacy" in the design of technology for the future.

The success of CUTC can be measured by the continued dialogue about next year's conference, among industry participants, conference organizers, and delegates. Although Kwan would like CUTC to become as established as the pharmacy conferences and spread to other campuses across Canada, he acknowledges it might take a few years before other universities are willing to take the conference on.

"This is not a small job," says Kwan. "Waterloo has connections with companies. We're a high-tech school. If the conference were to move to another university that wasn't as high-tech minded, it might be a little tough to get funding."

Organizers are already thinking about how the conference can be improved next year. They're planning to work harder at raising the conference's profile on campus, and to expand awareness and participation beyond campus.

But in the meantime, they might want to take some time to reflect on what they have already accomplished. Thanks to their efforts, students from across Canada have been exposed to something that is often overlooked: the human side of technology, the importance of human will and values in shaping the future. There is more to technology than a computer that comes in five different colours.

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For more information about CUTC, visit the conference web site at www.cutc.uwaterloo.ca.