

2009

SCHOOL OF COMPUTING



A NEW MOTTO FOR THE SCHOOL OF COMPUTING

SUM ERGO COMPUTO

I am therefore I compute

The motto speaks at different levels. At one level, it expresses our identity. The motto says that we are Computer Scientists. Computing is what we do. Our professional reason for being is the theory and practice of Computing.

At a deeper level the motto asserts that "Being is Computing". Computing permeates the Universe and drives it: Every atom, every molecule, every cell, everything, everywhere, at every moment, is performing a computation. To be is to compute.

Dr. Selim G. Akl
Professor and Director

The School's 40th Anniversary 1969—2009

Our 2009 Spring convocation was a multi-faceted celebration. Not only did we witness a large convocation with both graduate and undergraduate students, but Bill Buxton was awarded an honorary doctorate in recognition for his contribution to research in the field of human-computer interaction. After the ceremony, a large group of students, faculty and alumni met for a recognition dinner in Kingston. Guests were treated to an entertaining and thought-provoking talk by Bill. School staff also collected a four-decade collection of photos which ran as a slideshow during the event. We haven't changed that much!

Dear friends,

This year we celebrate the 40th anniversary of the Queen's School of Computing.

Recently I was reminded of a "bon mot" of sorts, no doubt invented by someone frustrated with bureaucracy. The quip goes like this: "Nothing must ever be done for the first time." Well my friends over the last 40 years many things were done here for the first time, many great things by many exceptional people. I will be telling you about all these things shortly. But first let me reminisce for a moment.

It all started in 1969. I remember that year well. In 1969 the Beatles released their Abbey Road album and gave their last public performance. In 1969 Canada became officially bilingual. In 1969 the supersonic jet Concord began its test flights (more on this later). In 1969 ARPANET was created. Monty Python and Sesame Street went on the air. And in 1969 Unix was invented (more on this later).

1969 was one of the most exciting years for me. As a space travel buff, how can I forget witnessing the first lunar landing? Humanity had just realized its dream of walking on that big ball of cheese that we call the moon. But more importantly for me, 1969 was the year I discovered Computer Science. As an engineering student I was on an internship at SUD AVIATION in Toulouse, France. Later known as AEROSPATIALE, this was the company that built the Concord which was at that time doing test flights, while the AIR BUS airplane was being designed. I was part of the team that wrote the first flight simulator for the AIR BUS. From simulation, I learned that you could create worlds that did not previously exist, yet worlds as real, as useful, as effective, as far reaching as one could ever imagine. I knew there and then that this is what I wanted to do. I wanted to become a computer scientist.

Meanwhile, back in Kingston, that same year 1969, a group of visionaries had just convinced Queen's University to set up a Department of Computing and Information Science. This was their second attempt, mind you. Had they succeeded in their first attempt, this would have been the first department of computer science in Canada.

The Department began offering Bachelor degrees in 1969, Masters in 1970, and the Ph.D. in 1986. In 2002 we became the School of Computing.

In forty years profound changes took place. We went from punched card decks that can store a few kilobytes of data to cards the size of stamp holding 64 gigabytes of information. We went from a computer that occupies half of a floor to a solid-state laptop more powerful than the machines that sent men to the moon.

As we mark our 40th anniversary, we reflect on the challenges that we faced over the years. This is a School that in the 1970s survived wage and price controls. We also survived the recession of the 1980s. The 1990s brought us Rae Days, and worst of all the uncommon nonsense revolution. This decade we witnessed severe budget cuts and the threat of another recession.

But we survived, and we will survive. Indeed I promise you we will do much better than just survive.

And now please forgive me as I indulge in some shameless self promotion. After all you're only 40 once.

This year we celebrate. We celebrate a School unique in its quality, unique in its spirit, unique in its people. We celebrate a School with a strong commitment to excellence in education, research and service.

DIRECTOR'S MESSAGE

Selim G. Akl

Director, School of Computing



Outstanding undergraduate programs

The School offers undergraduate programs of exceptional quality, diversity, innovation and reach. Did you know that the School was the first in Canada to get the educational license for Unix on a VAX 780? That our Biomedical Computing program was the first and remains the only such program in Canada? That our Cognitive Science program was the first such program in the world? And that our Computing and the Creative Arts is the first such program in North America?

Top quality graduate education

Our graduate program, with an average of 140 full-time M.Sc. and Ph.D. students, is the largest full-time graduate program at Queen's.

Our graduate students are fully engaged in the School's research agenda. They are involved as co-authors on almost every research paper published by the School. They write book chapters, organize conferences and edit conference proceedings.

Two recent "firsts" are noteworthy: the First International Student Conference on Biomedical Computing (Kingston, 2005), and the first International Conference on Unconventional Computation to be held in the Americas (Kingston, 2007), were both organized at Queen's by graduate students in the School of Computing.

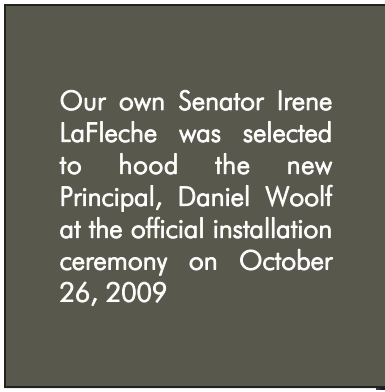
Our students shine at every opportunity, receiving internal and external scholarships, and winning international prizes and best paper awards. Over the last three years, two of our Ph.D. graduates were selected by Queen's as the university's nominees for the NSERC Doctoral Prize.

World class research

The School of Computing is actively engaged in research on a broad range of topics, with an eminent research record. Research areas include: Artificial Intelligence, Biomedical Computing, Communication Networks, Computational Geometry, Computational Linguistics, Database Systems, Data Mining, Design and Analysis of Algorithms, Graph Theory, Human-Computer Interaction, Information Systems, Machine Learning, Parallel and Unconventional Computation, Perception and Robotics, Programming Languages and Systems, Software Engineering, and Theoretical Computer Science.

Research performed in the 22 laboratories of the School spans the spectrum of conventional computer science, while at the same time exploring non-standard areas of computation. For example,

1. We have a team that designs wireless networks of tiny sensors located deep below the surface of the ocean, whose purpose is to study that largely unknown world.
2. A group is developing computer-based techniques to increase the accuracy and reduce the discomfort of medical procedures.
3. We are discovering properties of certain computers that are radically different from the ones in use today, in the sense that a bit is the spin of an atom, or a register is a strand of DNA.



Our own Senator Irene LaFleche was selected to hood the new Principal, Daniel Woolf at the official installation ceremony on October 26, 2009

4. The School is building organic interfaces for humans to communicate with computers.
5. Our researchers are finding methods to make databases more secure, software more reliable and computers more intelligent.

We collaborate with researchers in other departments at Queen's as well as other universities in Canada and abroad. We have strong ties with industrial partners (Bell, BMW, IBM, RIM, and Xerox, to name a few), and our work is funded by the major granting agencies (NSERC, SSHRC, CIHR, CFI, ORF, OCE, NIH, and so on). Our researchers have earned national and international recognition, winning awards and prizes, delivering keynote lectures around the world, and serving as journal and book editors, as conference chairs, and as members of grant selection panels. They write influential books, act as consultants, and are interviewed by the media on a regular basis.

Our Biomedical Computing colleagues performed the world's first reported computer-assisted surgeries in knee realignment for early arthritis, in wrist realignment for poorly healed fractures, in the removal of bone tumours, and many more.

Our colleagues in The Human Media Lab designed the first long-range eyetracker and eye contact sensor, the first teleconferencing system to convey eye gaze in group conversations, the first interactive foldable paper computer display, and many more.

I am happy to tell you that the first ever NSERC Industrial Research Chair in the Faculty of Arts and Science at Queen's (and the first in Software to be supported by Research in Motion) was recently established in the School of Computing.

Superb support staff

The School's support staff, including the School Manager, our information technology specialists, and our administrative assistants, make a contribution that is essential to the School's mission.

Over the years, nine members of the School staff were recipients of the highly coveted Queen's Special Recognition Award.

Outreach activities

Members of the School of Computing, students, staff, and faculty, are committed to serving the community in which we live. The following five volunteer groups are established within the School: Computing Student Association (COMPASA), Computing & High Tech Academic Mentorship Program (CHAMP), Computing Unplugged PromoScience Program, Women in the School of Computing (WISC), and National Technology Youth Leadership Conference (NTYLC).

Wonderful Atmosphere

Finally, the School offers a stimulating environment in which to work, learn, and discover. It is a welcoming, warm, and caring place, of which we are proud.

A First for Arts and Science at Queen's: An NSERC Industrial Research Chair in the School of Computing with RIM



Research in Motion has seized the opportunity to broaden its exposure and relationships by going farther away to a new and unknown world to them – Queen's – to do software research. Last year RIM approached Queen's about establishing a \$4.3 million NSERC-RIM Industrial Research Chair in Software Engineering. The Chair will support RIM's leading position as a creator and innovator of modern telecommunications software. And, Queen's showed keen interest in working closely with RIM on creating a unique world-class research concentration in software engineering of ultra-large-scale (ULS) systems. The chance to underscore the reputation of Queen's School of Computing as a national and international leader in software research and to enhance the training opportunities for students was very attractive. The new position, now in place, permits Chairholder Ahmed E. Hassan (Computing), to investigate some of the most pressing software engineering challenges of ULS systems. ULS systems, the building blocks of next-generation Web applications, play an essential and growing part of our lives – they are already at the core of the BlackBerry Platform, the Rogers wireless network, the eBay auction system, and the Amazon Elastic Compute service. According to the Director of University Research at RIM, Dave Dietz, the company is looking forward to sharing knowledge, training future leaders and advancing the state of the software engineering research in Canada and around the world.

DIRECTOR'S MESSAGE (cont)

And so to conclude, I would like to take this opportunity to salute all the people who made us who we are:

Our founders for their foresight,
Our faculty for educating generation after generation of students,
Our staff for watching over us and keeping us going,
Our students who are the reason we are here,
Our friends in the Queen's administration for their contributions to our accomplishments,
Our industrial partners for their help and support, and
Our alumni for providing us throughout the years with the wherewithal to achieve excellence.

Happy Birthday School of Computing and we look forward to continued success for many years to come.



Letter from the COMPESA President

Hello Alumni and Friends!

I am honoured to be able to address you all on behalf of the Computing Students Association, or COMPESA as it is more affectionately known around here.

This year, the Computing Orientation Committee, under the leadership of High Tech - Tamara Redwood, welcomed the Class of 2013 to the Queen's Computing Family. Orientation Week, as always, featured many welcoming upper year students who volunteered their time, enthusiasm, and spirit to make incoming students feel welcomed. I, myself, was a member of the Orientation Committee, so I can attest to new bonds that were formed during Orientation Week both within the incoming class and between leaders. As I am sure most of you have experienced, orientation is a time all participants will not soon forget. With new events like CompSci Idol, A LAN Party, and a revamped CompSci Cup, this year's Orientation saw a lot of well-received changes that have put a new and exciting spin onto Queen's Computing Orientation. To quote the great Winston Churchill, "To improve is to change; to be perfect is to change often."

As with Orientation, COMPESA is looking at starting many new initiatives this year. We have a lot of great ideas to get off the ground, and we hope to see them soar in the next little while. Now that classes have resumed, the Council is even harder at work than before at trying to provide the absolute best for our Computing students. One of the big initiatives of COMPESA this year is to work on Alumni relations. As it stands now, there isn't a strong bond between Alumni and current students. To challenge this, we are in the works of creating a position for a Graduating Class President, which will serve as a representative of that year's graduating class, and will assist COMPESA in keeping touch with the Graduates of that year. As part of this plan, we will soon be electing a Class President for the Class of 2010. That being said, for those of you who are reading this and do not have a Class President for your year - don't be a stranger! We would still love to hear from you.

In addition to adding new events and changing for the better, we are also keeping around all the tried and tested favourites. Some of our returning events this year are the Fall Semi Formal, weekly Coffee with Profs, our Annual LAN Party, and our End of the Year Banquet.

I am very excited for the upcoming year, and see only good things in the future of COMPESA, and the School of Computing as a whole. To keep an eye out for what is going on with COMPESA, or to contact any member of our Council, check out our website at <http://compsa.queensu.ca>.

Eric Rapos
President
Computing Students Association
Dominus Machinarum

DESTINATION: RWANDA

Many students go on summer internships, but very few get to do what Jaimmie Riley, a Computing and Developmental Studies student, did during her summer vacation this year. Jaimmie was an intern at WE-ACTX, in Kigali, Rwanda, helping Rwandans with technology for their HIV research centres. After the attempted genocide, when rape was used as a war tactic,



HIV transmission grew rapidly in Rwanda. Three women from the United States started WE-ACTX because Rwandan women were not able to get treatment. As a non-profit, non-governmental grassroots organization, WE-ACTX opened clinics for the treatment and management of HIV for war victims. WE-ACTX is run and upheld solely by Rwandans.

Jaimmie got in touch with WE-ACTX through a family friend, Louise Binder who is an HIV-positive international speaker. By this initiative, Jaimmie was the first person to work for WE-ACTX with the intention of helping and improving their use of technology.

Jaimmie spent time observing how the Rwandans used their computers. She showed the researchers how to use a right-click, flash drives, and how to defragment a hard drive. Nobody had taught them how to do this. Graphical User Interfaces were disorienting for a lot of them. "It's not an environment they're used to."

"Teaching it was a challenge. It was interesting to see how they learned", she said.

One thing Jaimmie noticed was a lack of communication between the researchers' information gathering. There was a Rwandan named Bosco who showed Jaimmie how he compiled his research from the research clinics: he combined the nurses' databases by hand and uploaded them to the server. The nurses had many errors, so Bosco would spend a large amount of time trying to fix these errors rather than transferring the knowledge to the nurses of what they were doing wrong.

To get the internship, Jaimmie had to write a proposal about the capacity of technology in developing countries, but she now believes that she may have been too optimistic.

In Rwanda, things are slower paced. Some users were really inexperienced. "It's an interesting way to put your own culture in

perspective," she says. Sometimes the job was frustrating and slow-moving. There was a lot of time to meet people and do other things. Jaimmie taught English to Rwandan Orphans on Sundays, attended the Genocide Memorials, and had the opportunity to travel the beautiful country.

Jaimmie realized that there was no one to deal with technological maintenance; the infrastructures don't exist. There was no reliable internet and no server. "You need to understand what they're doing and compromise and change your goals along the way." She says you need to address the immediate needs before you can advance technology in developing countries. What's right for us is not necessarily right for them.

For anyone interested in technology in developing countries, Jaimmie advises that people have to be prepared "to leave who they are and their expectations behind. If you don't have an open attitude or mind when you go, and you're not willing to change and adapt into the community, then your being there will do more harm than good."

It was a significant learning experience for Jaimmie, and although she felt she couldn't help as much as she had originally hoped, she is very happy she went.



Article submitted by undergraduate student Rachel Tigner

TEAM IAN



Many of us remember the shocking news when Ian Lawson Van Toch, a Biomedical Computing graduate from the School of Computing, suddenly died from a heart attack in 2007. He is still remembered in the hearts of many. In Ian's memory, on October 18th, 2009, "Team Ian" ran with the Princess Margaret Hospital/GoodLife Fitness Toronto Marathon to raise money in support of the *Ian Lawson Van Toch Cancer Informatics fund*. The Team consisted of Jenn Clarke, Sacha Robinson, Murilo (Mojo) Guimaraes, Erika Scholz, Krista Kostroman, and of course, Debra Lawson, Ian's mother who also coordinated the event.

Originally, Debra had set out alone to raise \$25 000 by running the Half-Marathon, a huge step in the process of securing the \$100,000 needed to endow the fund. When Jenn Clarke, a Queen's Computing student and friend of Ian's, heard of Debra's goal, she felt deeply moved and motivated to help. "He was the cool guy, always really nice." In hopes to keep his memory alive and help the cause, Jenn got in contact with Debra asking how she could do her part to help raise money. Thus began Team Ian.

In the summer of 2007, Ian did an unpaid internship, under the mentorship of Dr. Igor Jurisica, in the field of Cancer Informatics. That summer, Ian had discovered his passion and was preparing to do his graduate degree in Cancer Informatics at the University of Toronto.

In Ian's memory, Dr Jurisica started the Ian Lawson Van Toch Cancer Informatics fund, hoping to attract other students to the field of Cancer Research with paid summer internships, and to promote Cancer Research with undergraduate students. To read more about the fund, go to <http://www.cs.toronto.edu/~juris/IAN.html>.

The race started in the early morning, with Debra running the half-marathon (a huge undertaking), and the rest running the 5K. According to Sacha, you could see the effect Ian had on people with his family and friends cheering on the sidelines.

The weather was gorgeous and after the race, family and friends gathered for brunch at Debra's house. Sacha recalled the best part of the day was everyone sitting on the porch and sharing their personal memories of Ian. "It felt like his presence was there."

The team raised a total amount of \$37,945, a huge stride towards the goal of \$100,000 necessary to make the Ian Lawson Van Toch Cancer Informatics fund an endowed fund. The event turned out to be an unbelievable success, and according to Jenn, Debra is already recruiting for next year's race.

Ian may be gone, but he definitely is not forgotten.

Article submitted by undergraduate student Rachel Tigner

Jim Cordy Receives IBM Centre for Advanced Studies Faculty Award



Prof. Jim Cordy has been awarded the IBM Centre for Advanced Studies (CAS) Faculty Fellow of the Year Award at the CAS faculty awards dinner at Cascon, the annual international conference in computer science and software engineering hosted by IBM in Toronto. Dr. Cordy was recognized for his contributions to positively impacting the goals and reputation of IBM and CAS in the academic community by facilitating research relationships and interaction over the past year.

Queen's has a long history of strong interaction with IBM and CAS and this year was no exception. Queen's had the largest involvement of any university at Cascon. As technical program co-chair, Prof. Patrick Martin helped craft an outstanding program including keynotes from senior software scientists at IBM, RIM and Google, and Prof. Cordy co-organized SITCON, a CAS / NSERC strategic workshop bringing together a wide range of experts from both academia and industry to discuss the future of the Smart Internet.

The annual Cascon technology showcase included 17 research posters and demonstrations by students from the labs of Profs. Jenny Zou, Ahmed Hassan, Thomas Dean, Patrick Martin and Jim Cordy, and Prof. Dean's student Muhammad AboElFotoh presented a technical paper in database security that drew a lot of interest from both the academic and industrial audience.

GRACE HOPPER CELEBRATION OF WOMEN IN COMPUTING

This year I was awarded funding from the Queen's Sessional Adjunct Scholarly and Professional Development Research Fund to attend the *Grace Hopper Celebration of Women in Computing Conference* in Keystone, Colorado. I have heard it said that every woman in computing should attend the Grace Hopper conference at least once during their career. I can now cross this off my list of things to do before I die, but I have a hunch that it may mysteriously reappear on my "to-do" list in years to come. Within a 24 hour time period, approximately 1800 women (and about 20 men) ascended (9166 feet above sea level to be exact) upon Keystone Colorado. Although Keystone is breathtakingly beautiful, surrounded by mountains and sparkling yellow aspens, for the skiers among us, being at Keystone in October caused a great deal of suffering. Thankfully the conference was a great distraction (as was the altitude sickness that many of us experienced for the first few days). The conference was attended by professional women of all ages, and at different stages of their career. It is the world's largest gathering of women in computing from academia, government and industry. Among the attendees were undergraduate students, graduate students, faculty (and retired faculty), researchers, developers, recruiters, a Turing award winner (big hint; she is female), and several CTOs and CEOs of large (and small) companies.



On the first day of the conference, the PhD forums were the highlight, especially for the academics in the crowd. This is a chance for PhD students to present a technical talk on their research work. The School of Computing was brilliantly represented by **Manar Hasan Alalfi** who presented her work on a role-based access control security model for dynamic web applications. The students were provided with feedback from the faculty and industrial audience attendees following their talks. **Kelly Lyons** (School of Computing graduate, now at University of Toronto) served as a faculty mentor during one of these sessions.

The two conference keynote speakers were amazing; one being Fran Allen, retired IBM Fellow and the first woman to receive a Turing award (did you guess earlier?) and Mary Lou Jepsen, CEO Pixel Qi and the founding CTO of One Laptop per Child, an organization whose mission is to deliver low-cost laptops en masse to children in developing countries. In addition, we enjoyed a CTO forum where CTOs from Xerox, Rockwell Collins, Sun Microsystems and Intel answered audience questions about their roles and experience. Both nights we were treated to a reception with food and entertainment. The first night was the awards night. Our own **Mireille Gomes** (now at Oxford) was one of the four Canadian Anita Borg Scholar award winners. Congratulations, Mireille!!!

The second night was "Sponsorship Night" hosted by Google and Microsoft, featuring a dinner and dance party. At one point there were approximately 500 women involved in a conga line! That was a first at a conference for me!

So, what did I get out of the Grace Hopper Celebration for Women conference (besides many new fashionably geeky t-shirts)?

Probably what I enjoyed most was experiencing firsthand the energy and excitement that this conference brings to the young generation. The students were caught up in the thrill of being amongst so many professional women who are living their dreams. They discovered that their career possibilities are endless, and that success comes in so many different forms. They learned that even the most successful among us have fears and doubts, but that these are normal and can be overcome. It was wonderful to see how keen they were to learn, mingle, network, and take part in all the activities. Being amongst women, they felt they could be themselves, and the atmosphere was incredibly fun and friendly. No doubt these young people returned to their schools/workplaces rejuvenated, energized, and ready to achieve new goals. They acquired many great ideas for furthering their careers, and learned how important it is to encourage and mentor other women in our field.

I attended many of the sessions on outreach activities (this being a large part of what our Women in the School of Computing (WISC) group does in its Computing Unplugged Program) and the sessions on recruitment (as I am now on the undergraduate/recruitment committee). From these sessions, I learned of many online resources that are available for outreach activities and I tried out some of the activities in a hands-on workshop (where I got to torment poor Mireille, bringing back memories of when she was in my CISC 324 class. Sorry Mireille!).

The most important lesson I learned from attending Grace Hopper is how important it is for us to inspire our youth and how beneficial this is to the retention of our female students. I was amazed to see so many undergraduate students, many of them Canadian, attending

GRACE HOPPER CONTINUED NEXT PAGE

BILL BUXTON LLD (Queen's) 2009



Bill Buxton is a relentless advocate for innovation, design, and - especially - the appropriate consideration of human values, capacity, and culture in the conception, implementation, and use of new products and technologies. This is reflected in his research, teaching, talks, and writing - including his column on design and innovation for BusinessWeek.com, and his 2007 book, *Sketching User Experiences*. In December 2005, he was appointed Principal Researcher at Microsoft Research, and prior to that, he was Principal of his own Toronto-based boutique design and consulting firm, Buxton Design.

Bill began his career as a composer and performer, having done a Bachelor of Music degree at Queen's University. He then studied and taught for two years at the Institute of Sonology, Utrecht, Holland. In 1975 he started designing his own digital musical instruments. This is what led him to the University of Toronto, where he completed an MSc in Computer Science, and subsequently joined the faculty. It is also the path that brought him into the field of human-computer interaction, which is his technical area of specialty.

From 1987-89, Bill was in Cambridge England, helping establish a new satellite of Xerox's Palo Alto Research Center (EuroPARC). From 1989-94 he split his time between Toronto, where he was Scientific Director of the Ontario Telepresence Project, and Palo Alto, California, where he was a consulting researcher at Xerox PARC. From 1994 until December 2002, he was Chief Scientist of Alias|Wavefront, (now part of Autodesk) and from 1995, its parent company SGI Inc. In the fall of 2004, he became a part-time instructor in the Department of Industrial Design at the Ontario College of Art and Design. In 2004/05 he was also Visiting Professor at the Knowledge Media Design Institute (KMDI) at the University of Toronto. He currently splits his time between Redmond and Toronto.

In 1995, Buxton became the third recipient of the Canadian Human-Computer Communications Society Award for contributions to research in computer graphics and human-computer interaction. In 2000 he was given the New Media Visionary of the Year Award at the Canadian New Media Awards. In 2001, The Hollywood Reporter named him one of the 10 most influential innovators in Hollywood. In 2002, Time Magazine named him one of the top 5 designers in Canada. Also in 2002, he was elected to the CHI Academy. In October, 2005, he and Gord Kurtenbach received the "Lasting Impact Award", from ACM UIST 2005, which was awarded for their 1991 paper, *Issues in Combining Marking and Direct Manipulation Techniques*.

In June, 2007, Bill was named Doctor of Design, Honoris Causa by the Ontario College of Art and Design, and in 2008 he became the 10th recipient of the ACM SIGCHI Lifetime Achievement Award, "for fundamental contributions to the field of Computer Human Interaction." In January 2009 Bill was elected Fellow of the Association of Computing Machinery (ACM), for his contributions to the field of human-computer interaction, and in June he was awarded a Doctor of Laws degree, honoris causa, by his alma mater, Queen's University.

GRACE HOPPER (cont.)

the conference, in most cases sent by their respective departments. These schools were well represented by the astute individuals that I met.

So, my goal, after having experienced the Grace Hopper Celebration of Women in Computing first hand, is to see at least 3 of our female undergraduate students attend next year's conference, both to inspire these students and to represent the School of Computing as a school who values and promotes their female students. Of course, this will require significant funding. I will do all I can to make this happen, but I would challenge the School of Computing to allocate some of our fundraising money to inspire, and perhaps reward, some of our young undergraduates for their tireless contributions to the School. Lastly, I would like to congratulate and thank the organizers of the Grace Hopper Celebration of Women in Computing, the Anita Borg Institute and the many sponsors for a well run conference and for providing inspiration for all of us.

Wendy Powley
Research Associate/Adjunct Lecturer

School of Computing Awards 2009

On June 8, 2009, School Director, Dr. Selim Akl, inaugurated a new tradition by presenting the first annual School of Computing Achievement Awards. "The School is blessed with a bountiful amount of talent in its students, staff, and faculty. Their excellence is a cause for celebration," said Dr. Akl in his address. "These awards will be given annually to those who have distinguished themselves in research, supervision, and service to the School."



Congratulations to this year's recipients:

- Dr. Jim Cordy (Award for Distinguished Graduate Supervision)
- Dr. Bob Tennent (Distinguished Service Award)
- Dr. Pat Martin (Award for Distinguished Graduate Supervision)
- Paweena "Sue-Sue" U-Thainual (Graduate Student Distinguished Service Award)
- Lisa Drewell (Distinguished Master's Thesis Award)
- Chanchal Roy (Ph.D. Research Achievement Award)

Graduate Students Excel in International Programming Contest

A team of graduate students representing Queen's School of Computing has placed 10th out of 700, and top amongst all Canadian participants, in an international, on-line computer programming competition.

Held on Oct. 24, the IEEEExtreme global challenge involved teams from 40 countries competing to solve a set of programming problems within 24 hours. The Queen's team included students **Mahmoud Ouda** and **Sharief Oteafy** from the School of Computing and **Hatem Abou-zeid** from the Department of Electrical and Computer Engineering.

"This was very much a team effort, and we're all really happy about our achievement," says Mr. Ouda, a master's candidate in the Telecommunications Research Lab and former world finalist in the prestigious ACM International Collegiate Programming Contest. "With more preparation, we hope to do even better next year."

The School of Computing team used Queen's motto, Sapientia et Doctrina Stabilitas ("wisdom and knowledge shall be the stability of thy times") as their name. Computing Professor Hossam Hassanein provided support, and alumnus Dr. Y Hung Tam acted as proctor during the 24-hour, non-stop contest.

Sponsored by IEEE, the world's leading professional association for the advancement of technology, competition results are posted here: <http://www.ieee.org/web/membership/students/xtreme/2009results.html#Review>



FIRST ANNUAL COCA 201 COMPUTER ART EXHIBIT

Dr. Roel Vertegaal's COCA 201 course presented their first annual art exhibit in April. Projects made use of webcams for proximity and colour sensing as well as motion tracking. Additionally, groups made use of infrared cameras and Nintendo Wii remotes with specialized software that allowed projects to be programmed visually rather than making use of traditional, text-based programming tools.

Computing and the Creative Arts (COCA) is a Special Field program combining a concentration in Computing with a concentration on one of four Arts subjects: Art, Drama, Film or Music. This program was introduced by the School in 2008.



SPECIAL ACHIEVEMENT AWARD FOR DAVID FRANKLIN

Thirty nine years ago, a young man by the name of David Franklin obtained a Bachelor's degree in Chemistry from Queen's. Looking to do graduate studies he applied to several departments and universities in a variety of fields (mathematics, chemistry, education, and so on). He received admission to all, but settled on a new department on the Queen's campus, only one year old then: Computing and Information Science.

David began a Master's degree in the fall of 1970 and all went well for a while, as he took courses and worked on a research project. Unfortunately, before finishing, David had to interrupt his studies for reasons beyond his control.

David went on to an illustrious career as a computer consultant. He founded a company that employed some sixty people and did contract work primarily for the Government of Canada. Over the years he remained loyal to Queen's and in particular to the School.

This academic year David did something extraordinary: He returned to complete his degree. He did so successfully, and on June 9, 2009 he received that M.Sc. that eluded him so many years ago.

At the 40th anniversary dinner, held in the evening of the Spring Convocation, Selim Akl congratulated David on his accomplishment, and on behalf of the School presented him with the School of Computing Achievement Award in recognition of his perseverance and indomitable spirit.



Principal Daniel Woolf held an Installation Symposium and invited Dr. Randy Ellis to participate. The title of the symposium was "Wisdom, Knowledge and Imagination." Dr. Ellis contributed to the discussion of the nature and values of the University, issues of interdisciplinarity, and the relations between the University and the broader community.



FALL PREVIEW 2009

On Saturday, October 17, the Annual Queen's Fall Preview took place, with an Open House held in the Biosciences Atrium. The School of Computing had, without any doubt, the largest and most impressive display of the event. More importantly, the School's station had an unequalled (in number and enthusiasm) group of knowledgeable volunteers, on hand to speak with parents and prospective students, distribute brochures and run demonstrations of our work.

After stopping at our Fall Preview station this morning with his daughter, a gentleman had this to tell Dr. Akl: "What you guys do is amazing. Your School must be the best kept secret!" We took this as a compliment, for sure, but also as a reminder that we need to do a lot more to get the word out.

The Biosciences Atrium was bursting at the seams with nearly 2,800 visitors. The School was well represented. As is always the case, we had an impressive display of our teaching, research, and service activities, and an even more impressive group of enthusiastic volunteers.



Many Thanks to our Alumni and Friends

We appreciate the following alumni, faculty, staff and friends who directed their Queen's University gifts to the School of Computing. Listed below are our benefactors over the past 12 months. These donations are making a difference! Annual Giving can help us attract outstanding students and continue our outreach programs.

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Yolande Akl
Mr Dabin Wang

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- \$3000 per year pays for a Teaching Assistant which helps both our undergraduate students and the graduate students directly.
- \$1000 per year helps COMPSA run their amazing orientation program each September
- \$500 per year allows us to upgrade a computer in our labs

THE SCHOOL OF COMPUTING NEWSLETTER IS PUBLISHED ANNUALLY. PLEASE FEEL FREE TO CONTACT US.

Dean McKeown
EDITOR

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