Data Streams
New ways to share medical databases

New Faculty Alumni News
Has the Computer Science enrollment roller coaster started on the upswing again? I have been around long enough to experience the enrollment peaks of the early 1980s and 2000s. Unfortunately, it means that I experienced the hair-raising drop in CS enrollments following these peaks. In 2007, we hit the nadir and our CS enrollments, here and across North America, were at 40% of the 2001 peak. In 2008 and 2009 enrollments stabilized and in September 2010, Dalhousie had a 37% increase in our “new from high school” admissions into Computer Science.

Now the ICT industry is short of skilled employees and the unemployment rate in the ICT industry tracked lower than the overall unemployment rate in Canada. The most recent figures show the Canadian unemployment rate at 7.6%, and the unemployment rate in the Canadian ICT sector at only 3.3%. It appears that one of the major factors hindering the growth of the ICT industry in Canada is a shortage of skilled employees. It holds true for the ICT industry in Nova Scotia, now responsible for a higher proportion of the provincial GDP than agriculture, fishing and lumber combined.

If the growth of the ICT sector is hindered by the shortage of skilled employees, then so are other economic sectors. I recently saw data that show 60% of the people working at ICT jobs in the U.K. are not actually working in the “ICT Sector.” Imagine our economy without ICT – not a pretty picture!

So, as we ride the roller coaster we have to figure out how to keep our ICT enrollments at a high, stable level. Lots to think about.

Michael Shepherd
Dean

A Musician’s Transition

After completing his music degree, Don Doiron decided that for him, a career in teaching music might take away some of the enjoyment he had for playing music. Mr. Doiron was born and raised in a very musical family in Miramichi, New Brunswick. His father is a retired music teacher who brought home instruments for his children to explore and learn. As a result all three children love music and play a variety of instruments. For Don Doiron, studying music at a post-secondary level was a natural transition after high school. It was only after completing his music degree that Mr. Doiron started to have doubts about pursuing his initial career plans. He loved music but was not sure he wanted to make a living with music.

Pathology Informatics

Fast-forward five years, and Don Doiron is now part of the Pathology Informatics Team for Capital Health in a career that he describes as “awesome.” So how did he go from music to health care? “I always had an interest in computers, taking them apart, building HTML Web pages and even using them with my music,” says Doiron. After moving to Halifax to pursue more education, he was attracted by a tagline for the new Bachelor of Informatics degree at Dalhousie University, Technology Bringing People Together. “Something in that line struck a cord with me,” says Doiron.

He had the good fortune to meet with Dr. Ernst Grundke, the founder of the Informatics program at Dalhousie. Dr. Grundke shared Doiron’s music interest and was a very personable promoter of the program. Doiron says, “I felt no pressure to sign up. We had a mutual interest in music and we talked about a focused major option in the program. Then I researched the co-operative education component, the career options in Health Informatics and realized the incredible opportunities for graduates. I was sold!” He received advanced standing in the program and started into second year. Doiron was a member of the first class of Health Informatics at Dalhousie and he says there were a lot of expectations on the students. The program was “under glass” in the early stages and there were lots of demands on the students. The baseline for the program was being defined, and the students were a big part of the definition. “We did a lot of presentations and my public speaking skills really developed in those classes. In addition, I learned how to set priorities and manage my time. There was a tremendous amount of group work required in the Bachelor of Informatics and it prepared me for my career because I rarely work alone in my job. Numerous team projects provided the conditions where I found out about my individual responsibility.”

The co-op option

The co-op option proved to be very beneficial to Doiron. His first co-op placement was completed at the IWK Hospital in Halifax, creating a web site and database to help manage research project results. He traveled to British Columbia and Alberta for his second and third co-op placements, which he describes...
as “his practical introduction into the electronic health records field.” Doiron gained great practical knowledge by having the chance to work directly with doctors and observing electronic records in use. He confirmed two things on work terms; there is a growing demand in the Health Care field for technology and data management and that he wanted to be part of it.

Doiron graduated top of his class and secured his current job with the Pathology Informatics Team for Capital Health immediately after graduation. He credits the connections he made through his senior year project with leading him into his position with the Pathology Informatics Team. Doiron was part of a senior project team that analyzed a new software application for use in the laboratory. He proved himself to be a person that the Department of Pathology and Laboratory Medicine wanted on their Informatics Team, so it was a natural step to hire him.

The Department of Pathology and Laboratory Medicine at Capital Health is the largest laboratory department east of Quebec and is the main reference laboratory for the Maritime Provinces. Over 7 million laboratory requests and 11 million reportable results per year are processed by the department. As part of the Pathology Informatics team, Doiron works to support and improve the Laboratory Information System that records all aspects of the laboratory’s orders and results. He has worked in data and information analysis, database extracts and reporting, developing SharePoint sites and electronic dashboards that all work to directly improve patient care in Nova Scotia. For example, one dashboard provides an effective view of the outstanding STAT orders and it’s estimated to save two and a half hours per day over the old manual method. As time is such a factor when addressing health care issues for patients, Doiron has the satisfaction of seeing the kind of impact that his work is making.

The newest area that is capturing his attention is mobile devices. Doiron’s team knows that speed and portability for health care providers is a must for the future. He is looking forward to being part of a group who will move the communications of vital health information into the hands of the decision maker faster and more securely. He knows it is important for the future of our health care system and he is in the right position, working with the right people and systems to make it happen. It is these and other projects that keep Doiron completely motivated by his job.

When asked for his overall comments on the Bachelor of Informatics program Doiron used terms like “great program, great experience” and “provided me the skills to be successful.” “All my classmates have secured unique and rewarding jobs and the demand is there.” He went on further to say, “Dalhousie’s Bachelor of Informatics has a growing reputation in the workplace so I am a bit lost as to why more students are not enrolling in the program. Believe me, the work is here.”

What’s happening now
In a recent e-mail, Doiron provided updates on other rewarding aspects of his job. In February 2011, one of his dashboard projects made it to CDHA news. In March 2011, he launched two new dashboards for Blood Transfusion services which help reduce blood product wastage. Lastly, he has been invited to present his work to numerous groups which include: Cerner Conference in Ottawa (May 2011), CIHI user group in Ottawa (June 2011), Canadian Society for Medical Laboratory Science Conference in Halifax (June 2011).

He is making an impact on the health care of Nova Scotia, what a great reason to go to work each day!
Managing our knowledge about oceans.

Platform for Ocean Knowledge Management

Changes to the ecosystem are impacting our oceans and the marine life within it. To understand the impact of the changing ecosystem, ocean and marine life scientists are studying a range of physical ocean parameters in tandem with the behavior of marine life. One of the major challenges faced by the research community is to retrieve specialized, multi-modal data from global data repositories, then to link the relatively sparse observations on marine life with highly voluminous ocean data, and finally to derive insights from the integrated data through a series of scientific experiments and multi-faceted visualizations.

The project Platform for Knowledge Management (POKM), led by Dr. Raza Abidi, is developing a state-of-the-art E-Research platform that provides eco-scientists the ability to (a) share, select, access, handle and integrate high-volumes of multi-modal ocean and marine life data stored at global data repositories; (b) design and execute customized experiments using a range of data and scientific model; (c) analyze and visualize both raw data and experimental results; and (d) manage text-based knowledge artifacts. The POKM project, funded by CANARIE, utilizes CANARIE’s high bandwidth networks to handle high-volumes of ocean data and to facilitate collaboration between eco-scientists across the world to conduct multi-site scientific experiments.

The design of POKM showcases a unique synergy of semantic web, services oriented architectures, web services, text mining and visualization technologies. POKM takes a unique knowledge management approach by exploiting semantic web technologies to semantically describe the data, scientific models, knowledge artifacts and web services. This not only allows the seamless interoperability between complex data streams originating from different sources, but it also enables the selection and integration of fine-grained, problem specific data from large repositories by simply specifying the data needs for the task at hand. The infrastructure is modeled along a services-oriented...
architecture that exposes a range of task-specific web services accessible through a web-based portal. A unique feature of POKM is that it provides a simply selecting and interconnecting the relevant scientific services and the data—in the background POKM uses the semantic knowledge about data and models to perform data transformations and service interconnections to compute the results. To enable scientists to derive more meaningful insights from the data and the experimental results, POKM has developed a dedicated data visualization framework that allows scientists to visualize and interact with multiple layers of data as time- and location-varying animations, globe-based views and a range of multi-dimensional plots.

The POKM project epitomizes the inter-disciplinary collaborative research environment fostered by the Faculty of Computer Science. The project team comprises researchers from Computer Science, Marine Biology, Oceanography and Ocean Tracking Network. The amalgamation of conceptual, technical and managerial skills in the development of POKM demonstrates the Faculty of Computer Science’s ability to successfully operationalize computing theory and skills to develop practical real-world solutions. The POKM technical team comprises CS graduates and post-docs who have applied their knowledge and skills to solve complex research and technical issues—the opportunity to work on such a large-scale research and software development project has exposed CS students to real problems and innovative technical solutions.

POKM has practical uses for eco-scientists, and is expected to be used to study a variety of eco-system phenomenon, such as the migration patterns of marine animals (especially leatherback turtles and salmon), effects of coastal flooding, ocean desalination, changes in ocean behaviors and so on. “POKM provides a unique knowledge management perspective to support scientific investigations by working with the semantic descriptions of the components which enable seamless handling of large volumes of data, model execution, experimental workflows, data analysis and visualizations,” says Dr. Raza Abidi. Dr. Ian Johnsen, a marine scientist working on the project and a user of POKM comments “POKM is an innovative solution for bringing Marine scientists together as part of an online community. Now scientists around the world from different fields such as marine ecology, fisheries, and oceanography can collaborate and share their data, models, and other forms of knowledge online in a secure, efficient, and automated manner. POKM will free scientists to focus on what is important, conducting innovative research to better understand the world’s oceans.” Most attractively, the technical design and functionalities of POKM are applicable to other scientific domains as well, such as health care, environment, transport, mining, education and so on.

POKM is its second year of development and the beta version of POKM is now being launched.
PhD student develops 3D Camera-based Video Game Interface

In the summer 2010, Gary Hu, a CS PhD student supervised by Dr. Qigang Gao, successfully developed a 3D camera-based video game interface for a gaming machine manufacture company. This interface system was specially developed for the company’s video games, as the outcome of Phase-II of an 8-month Accelerate MITACS internship. In Phase-I research of the internship, Gary Hu developed a set of generic gesture recognition tools for Deep Vision Inc, a Dartmouth based computer vision consulting company (www.deepvision.ca).

Conventional video games are controlled by players via physical devices, such as various controllers with buttons and joysticks etc, which inevitably create semantic gaps between a game’s controlling and playing experiences. To make video games more attractive, a new emerging trend is to apply intelligent sensor interface technology to game systems, such as in Xbox Kinect, PlayStation Move and Wii, in that the player’s hand movements or body gestures can be captured automatically for deriving control parameters for manipulating the object(s) on a game screen. Playing with such games, the gamers’ perception of the semantic gap can be significantly reduced because the gamer experiences direct interaction with the virtual game scenes and therefore greater satisfaction, which is particularly important for various sports or battle games. It is also anticipated that this type of smart sensor technology will reduce the total cost of a multi-games system by getting rid of conventional hardware interface devices.

In Gary Hu’s system, a single TOF (time-of-flight) camera is adopted as the sensor, which provides two image sequences: range maps and greyscale images simultaneously. These two types of data are processed in parallel and then integrated to track players’ body motion streams for the target gesture recognition. The game control parameters are generated based on the recognized target gesture. The whole system framework includes the following functionalities: 1) motion feature extraction and object segmentation; 2) gesture representation and modelling; 3) target gesture recognition, and 4) game parameter generation. A video game “Dart” has been selected as the test bed sample for developing and testing the proposed sensor based interface system. A Demo can be found at: http://users.cs.dal.ca/~IPAMI/Projects_pami.html#gesture. A full 3D graphics display of the Dart game will be soon developed and integrated into the sensor based interface system. The company has also planned some other video games using this interface technology. For each new video game, the interface system only needs to generate a new gesture model and learn a new set of parameters for target recognition based on the game’s specific setting.
The emergence and popularity of social web sites have led to high research activity at Dalhousie aimed at utilizing the available information and extending social functionality of this Internet paradigm. Twecan (twecan.com) is an exciting start-up company, created by Dalhousie current and former students Tapajyoti Das, Hatem Nassrat, Sreejata Chatterjee, and Mausam Kalra.

Twecan is a web site for real-time harnessing the wisdom of user-generated content on Twitter. For example, you can query for “Danny Williams” and you can learn how Twitter users feel about the the former N.L. premier, according to the Twecan sentiment analysis engine. Twecan provides an interface to a faceted search on Twitter, which aims at giving you all up-to-date information that other search engines cannot. It is a great tool for finding out local or global gossip, news updates, movies, rage and what's hot. It tells you what everyone is talking about, how they feel about iPad and Brazil and the hockey game, right now. It attempts to make sense of the huge amounts of tweets that are posted every day and categorizes them as news or classified happy or sad, all real time. It is new technology that can capture the emotions of the crowd. Tapajyoti Das describes the development and goals of Twecan:

“Over the past few years, we have noticed an astronomical growth in social media activity. Millions of users, from all over the world are actively partaking in online social networks on a daily basis. Twitter is a micro blogging service that allows users to create short (less than 140 characters) status updates (tweets) and share them within their network of friends or to the public. Typically tweets convey pertinent information about the author's mood or opinion. Hence, a large collection of tweets can provide an excellent source of temporally relevant data for public opinion about a topic or event. When we had started using Twitter, we quickly noticed that the Twitter search was extremely basic and did not do any justice to the vast amounts of human contributed content being published. So about a year ago, three of our friends from school decided to build an exploratory search for the Twitter data stream. Using the Twitter API, coupled with an overdose of caffeine and a few late nights, we had a prototype ready in a month. From the response we got from our friends and colleagues, it was quite evident that what we built as a hobby project was indeed useful. Fueled by this, we decided to take our project to the next step; giving the product an identity. We decided to name this brilliant idea for creating an exploratory mashup search by harvesting tweets, Twecan after the nickname of one of our core co-founders, Tukan aka me! Just for kicks, we wanted to push our phonetic word play even further and have our logo look like a cross between Twitter and the Toucan bird. We sat down for a plan and a design and had all these wild ambitious ideas and at the end decided, ‘yes, we can’ code everything up. And that was the birth of Twecan (Tukan + Tweets + Can Do attitude) and our logo, resembling a tweeting Toucan bird.”

Sreejata Chatterjee talks about what sets Twecan apart and what’s exciting: “We do not want to be ‘The Google Killer’ or compete with the current search engines. We are prudent enough to realize that there is a huge market in social media and the realm of real-time search that is left unexplored by the bigger players in the industry and that’s what we are trying to tame with Twecan. Moving away from conventional Search Engine result pages, where only 10 static links are displayed, we group the results by their topic and present them accordingly. As the Internet matures, web users are getting savvier, using the online information as means to explore and research, aggregate and learn, and expect a holistic view of a topic that will enhance their surfing experience. To address these concerns, we dynamically group the tweets, analyze the sentiments, use graphical display of popularity and display other such interesting, inherent factors that can be derived and mined from the Twitter data.”

“Being information retrieval geeks and NLP romantics, we have worked on this faceted search to create a new and unique experience. Although there is a long way to go, we currently get many organic search hits from Google everyday, and rank within the first 2 pages when searching for the Google or Yahoo hot and trending topics. We have captured the high volume of dynamic data which makes up today’s web, which the major search engines have failed to capture. We truly believe that the future of search is more real-time, more exploratory than traditional single-information querying systems and we’re proud to be the pioneers of future search.”
Informatics puts knowhow to work
‘We’re building something that helps people and is lasting’

You might say Dal students are helping fire fighters put out fires—of a metaphorical sort.

Students with Dalhousie’s Informatics program in the Faculty of Computer Science have partnered with the Nova Scotia Fire Fighters School to give its public face a technical makeover. The ambitious project began in January 2010, and is the focus of a mandatory project management class for Informatics students. The class, comprised of students from all years of study, is divided into four groups. Each group is assigned a different component of the same project: website development, e-commerce, database management, and technical training, explains Norm Scrimger, professor with the Faculty of Computer Science, where the Informatics program resides.

The Nova Scotia Fire Fighters School provides training for firefighters. While the school has a campus in Waverley, the majority of Nova Scotia’s 8,000 volunteer firefighters live outside the Halifax Regional Municipality; the community organization needed an updated website to better serve its dispersed audience.

Aiding community organizations
Carrie Bourque, fifth-year Health Informatics major, leads the team investigating website design. The new website will allow NSFFS administrators to keep thousands of volunteer firefighters up to date on available courses and online training materials, while increasing promotion and awareness for the school, offering online registration, and eliminating costly mail-outs. This is Ms. Bourque’s sixth community outreach project, but the first that has spanned more than one semester. She says being a team leader has encouraged her to pursue a career in project management.

Past projects have introduced Ms. Bourque and other students to community organizations such as the IWK Bereavement Team and the Women In Technology Society (WITS); the current NSFFS project has been similarly eye-opening. Nancy Sweeney, executive assistant of NSFFS, says it’s been a learning experience for both sides.

Team lead for the database group, Gazheck Sinclair, says it was a challenge to recreate an entire database under the time constraints of the course, but that the experience has “let students know what to expect in the workforce.” This is the first time that Ms. Sinclair, a fourth-year Software Systems major, has worked in a focused group as part of a larger team and she says she enjoys the collaborative work. The updated database will provide NSFFS with more efficient administration.

The training group is in charge of familiarizing the client with the technological resources. Team lead Andrew Tse explains that they will provide NSFFS administrators with a training session and take-home materials. His group must have a comprehensive knowledge of all aspects of the project and compile information from the other three teams onto a Wikinotes website that will offer instructive resources like tutorial videos.

Real-world scenario
Working on the training team required an interesting “psychological switch from student to teacher,” says second-year student Susanne van der Wal.

Software Systems major Luke MacIntosh is part of the group assigned to organize e-commerce for the NSFFS. Group members have learned about merchant accounts, taxation, and shipping—elements that are not normally included in Informatics study. The new experience has given him an “appreciation for web stores” and “building from scratch” he says. E-commerce will allow the NSFFS to put its large bookstore online, as well as raise money for the organization.

The students have enjoyed the real-world aspect to the project, knowing what they’ve worked on will be used long after they graduate.

Instead of working to impress their professor, says student Maria Naggaga, they’re thinking more about the firefighters who’ll use the site. It feels great to work a real-world scenario, adds Mr. MacIntosh. “We’re building something that helps people and is lasting.”

The project management class is currently preparing to let the website go live, implementing the new database and e-commerce resources and training their client.
At Dalhousie, the stereotypical image of the anti-social nerd, programming in isolation and avoiding human contact is a thing of the past. Here, computer science is dynamic. It’s about hands-on learning, collaboration, innovation and problem solving in an environment that is less about “pushing code” than it is about exploring and redefining the role technology plays in our lives and in our communities.

That’s the philosophy behind the campaign for Dalhousie’s Living Lab — a $2-million initiative that will turn the Goldberg Computer Science Building into a high-tech showpiece supporting teaching and research through access to interactive collaborative technologies.

‘The whole building becomes a lab’
“Normally, when we talk about a lab, it’s inside a room in a building somewhere,” says Mike Shepherd, Dean of Computer Science. “What we want to do is turn that around so the whole building becomes a lab.”

The living lab will consist of touch screens throughout the public spaces of the Goldberg Computer Science Building. All of these computers will be connected, allowing students to work collaboratively and even from different locations. Hand-held devices such as phones will be able to interact with the public display screens, meaning that a student can provide input from outside the building.

‘Will make things easier’
Students will be able to sit in a semi-circle at a big screen and interact with it together, rather than huddling around a table trying to view a small laptop screen.

Ross Whitehead, a 21-year-old computer science student and president of the Computer Science Society, says the living lab is a great idea. “Four people can’t sit around a laptop. It’s not comfortable. So if one person can connect to the screen and everyone has a good view of it, that will make things easier.”

Renovations will start in a year, with an initial nine or 10 screens being installed on the fourth floor.

Dr. Shepherd says he hopes a video wall in the atrium may eventually be installed. The video wall would be one huge screen that could be used to project one image, or be subdivided to show multiple images.

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FCS Advisory Board

On March 28, 2007, a number of local business people were invited to join the FCS Industrial Advisory. The Board, consisting of senior-level executives, has assisted with the establishment and execution of a strategic plan for FCS and provides advice to the Dean on the day-to-day business. Four years later, Dean Mike Shepherd, calls upon the Advisory Board for a wide variety of topics. In between regular meetings, he never hesitates to get a second opinion on arising business issues in FCS from the Advisory Board Members. The Board has been an important influence on the direction of FCS as it has realized increased enrollments, development of new programs and a higher profile in the research community. Our thanks go out to the Advisory Board Members!

The current Advisory Board Members are pictured starting in the back row: Jerry Lawson-NSBI, Denis Riordan–Asso. Dean, FCS, James Dean-Moore-Ultra Electronics, Paul Slauenwhite-IBM, Ross MacDougall-Concertia Technologies, Jim Farmer (Chair)-CGI, front row: Mike Shepherd-Dean, FCS, Curtis Cartmill, LED Roadway Lighting, Jason Powell–Digital NS, Evangelos Milios-Asso.Dean, FCS and Jules Fauteux-Talentlogix. Missing: Jay MacIsaac-CGI, Dave Dietz-RIM, Mike McConnell-Digital NS.
The art of storing data

Most of us have important documents we need to keep: birth certificates, tax assessments, warranty certificates, etc. Imagine keeping them all on your desk or thrown into a single drawer. You have them handy and, as long as there aren’t too many of them, all is well. But as the number of documents increases, it becomes harder and harder to find a document you need quickly. Eventually, you will need to start organizing your documents.

Storing data on a computer is no different: to find certain pieces of information quickly, the data need to be organized in what is called a data structure. As with any form of organization, there are good ways and better ways to do it. Since modern computer applications often deal with billions of data items, finding better ways to organize the data—better data structures—becomes more important.

The type of data structure used to store the data can make the difference between spending seconds or days to locate some piece of information, especially for large databases stored on disk.

What is the best data structure to store data depends on the type of questions or queries we would like to ask about the data. Consider a database storing information about cars. If we only ever want to search for cars by their price, there is only one dimension, the price, along which to organize the data. Abstractly the car is a point in one-dimensional (price) space. If we also want to be able to search by a car’s top speed, the point gains another coordinate in top speed space. By adding more attributes we want to consider in searching for a car, every car becomes a point in a high-dimensional space, and we often want to search by more than one attribute simultaneously. For example, we may want to report all cars of a given model, sold in a certain geographic region in a given time frame and with a price in a given range. Abstractly, we call this (one type of) a high-dimensional range query, as we are interested in data items whose attributes fall in a given range in each of the attribute dimensions. Can we construct data structures that support such queries efficiently? Data structures that are good for organizing one-dimensional data are ineffective to speed up such searches because there may be many points that satisfy at least one of the search criteria but only few that satisfy all of them.

Peyman Afshani, a postdoc with the algorithms group, specializes in designing data structures that are small and fast. His particular focus is on range searching problems. These problems have been studied for decades and yet remain poorly understood. In collaboration with researchers at the MADALGO Center for Massive Data Algorithmics in Aarhus, Denmark, he has made significant contributions to higher-dimensional range searching, obtaining the first provably optimal data structure for answering queries in 3-d and substantially improving our understanding of the complexity of such queries in more than three dimensions. In collaboration with Norbert Zeh, an Associate Professor with the Faculty of Computer Science, and his PhD student Chris Hamilton, he has made significant progress towards improving the cache efficiency of range searching data structures, with the potential of significantly speeding up range queries on modern computer systems.

Peyman’s research is exciting, timely, scientifically challenging and answers many questions that were open before. It also leaves many questions open and even raises new ones. Let’s see what he comes up with next.
Teaching Excellence
It only took Alex Brodsky eighteen months to be selected by the students for the “Sri- ni Award for Teaching Excellence.” Dr. Brodsky joined the Faculty in July of 2009, since that time he has been a very positive addition to the teaching team at FCS. He is an outstanding volunteer and seems to be involved in every outreach activity undertaken by FCS. Congratulations Alex, and keep up the great work!

Games 2011
“CS Games” is an annual Computer Science competition between universities from across Canada and the United States. Hosted by various universities since 2003, the Games attract over 30 teams consisting of 6-10 members. The competition is open to undergraduate students studying in Computer Science, Software Engineering and other related fields such as Informatics.

CS Games promotes healthy competition for students while building multidisciplinary skills as well as the ability to work under pressure.

Students participate in Computer Science multi-related competitions such as Artificial Intelligence, Mathematics and Logic, Web Design, Assembly Debugging, Scripting and Team Software Engineering. The three-day experience also offers opportunities to meet like-minded students and get exposure to industry officials.

This year, the games are being hosted by Concordia University in Montreal. Dalhousie’s Team, “Team Meme” consists of Nicole Lewis (team captain, 4th year), Billy Mailman (4th year), Ryan Neilson (4th year), Cliff Wheadon (4th year), Justin Ivany (2nd year), Justin Arbuckle (2nd year), Andrew Spect (4th year), Dima Buchka (2nd year), Chris Cook (4th year), and Matt Mason (4th year).

Each member is responsible for 2-3 events for the weekend, as well as taking part in the weekend-long competition “Puzzle Hero.” Our team introductory video will be filmed over the next two weeks and will be made available for viewing on our CS Society website when completed.

Go Team Dalhousie!
Nicole A. Lewis, 4th Year CS

Research In Motion (RIM) honours Computer Science Students for Community Contributions.
Dave Dietz, Director of University Relations, presented the RIM Community Awards to four students from the Faculty of Computer Science namely Connie Jess, Ozge Yeloglu, Sara Maldonado and Joseph Howse. These students were nominated and chosen by their peers as outstanding community volunteers. RIM encourages students to be involved in community activities and is proud to acknowledge their achievements by sponsoring these annual awards.

Alumni Come Back to School!
During the winter term, eight alumni participated in a brand new program called Career Conversations. On Wednesdays, students were invited to come and have a conversation with one of the Alumni Volunteers about planning for their career. It was positioned to be a causal exchange between current students and past students. Our alumni shared lots of sage advice and encouraged current students to start controlling their careers right now. To our alumni, Curtis Cartmill, Grant Sullivan, Kirstie Hawkey, James Dean-Moore, Paul Slauenwhite, Andrew Creaser, Greg O’Malley and Henry Stern who participated in the program, many thanks for sharing your time and wisdom with us.

Pictured here is Grant Sullivan (MECom 2001) Senior Director, CGI Inc. speaking with a group of students about career planning.
Two new members joined the Faculty of Computer Science in the last year. Dr. Kirstie Hawkey returned to Dalhousie from University of British Columbia, Vancouver, B.C. and Dr. Karen Jin came to Halifax from University of Windsor, Windsor, Ontario.

At the 2010 Math/Stats/CS Conference luncheon, Dr. Art Sedgwick of Dalhousie University was recognized for his 32-year commitment to APICS and the ACM Programming Competition.

Art retired from teaching for the Dalhousie Faculty of Computer Science in December 2010.

The award said:

“Presented to Dr. Arthur Sedgwick in appreciation of many years of service in support of the work of the APICS Computer Science Committee in particular, and the wider Atlantic Provinces Computing Science community in general. Those involved in the annual programming competitions sponsored by APICS and the ACM are especially grateful for the effort he has devoted to the mentoring of both student teams and problem judges, the often difficult task of problem collection and preparation, and the assurance of suitable environments for the conduct of the competitions.”

Contributors
Raza Abidi, Norbert Zeh, Vlado Keselj, Qigang Gao, David Langstroth, Tomotby Mankowski, Nicole Lewis and Rosemary Bulley

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Class Notes
We would love to hear from you! Please send along your class notes (notes include special achievements, promotions, new business ventures, marriage, births, whatever your news)