

Spring 2012

ResearchFanshawe Magazine Issue 6

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Recommended Citation

Morningstar, Dana; Haaf, Robert; Delgado, Ramon; Fullick, Elanor; Bennett, John; Huff, John; McIntosh, Leslie; Graham, Simone; and Douglas, Dan, "ResearchFanshawe Magazine Issue 6" (2012). *ResearchFanshawe Magazine*. 4.
<http://first.fanshawec.ca/researchfanshawemag/4>

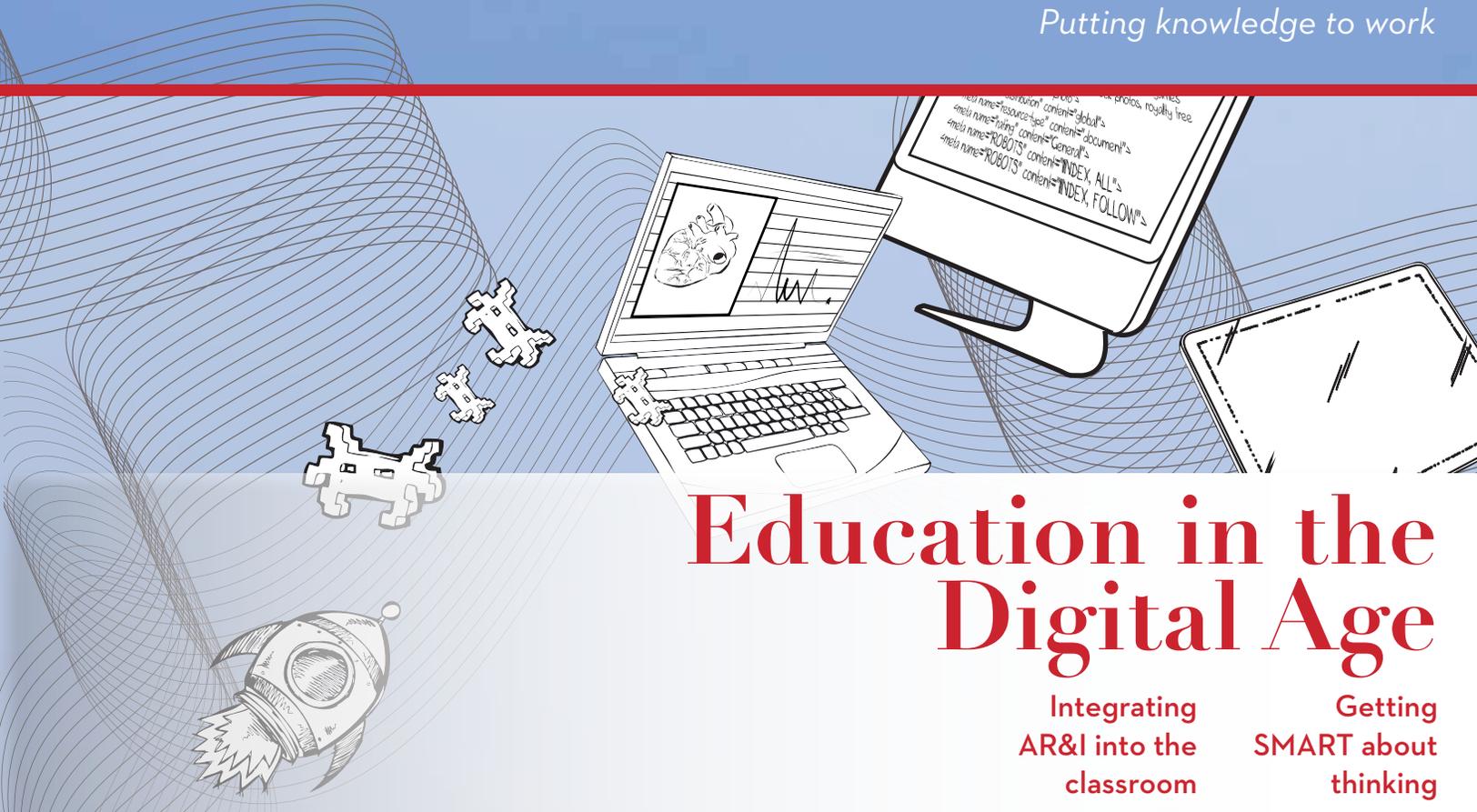
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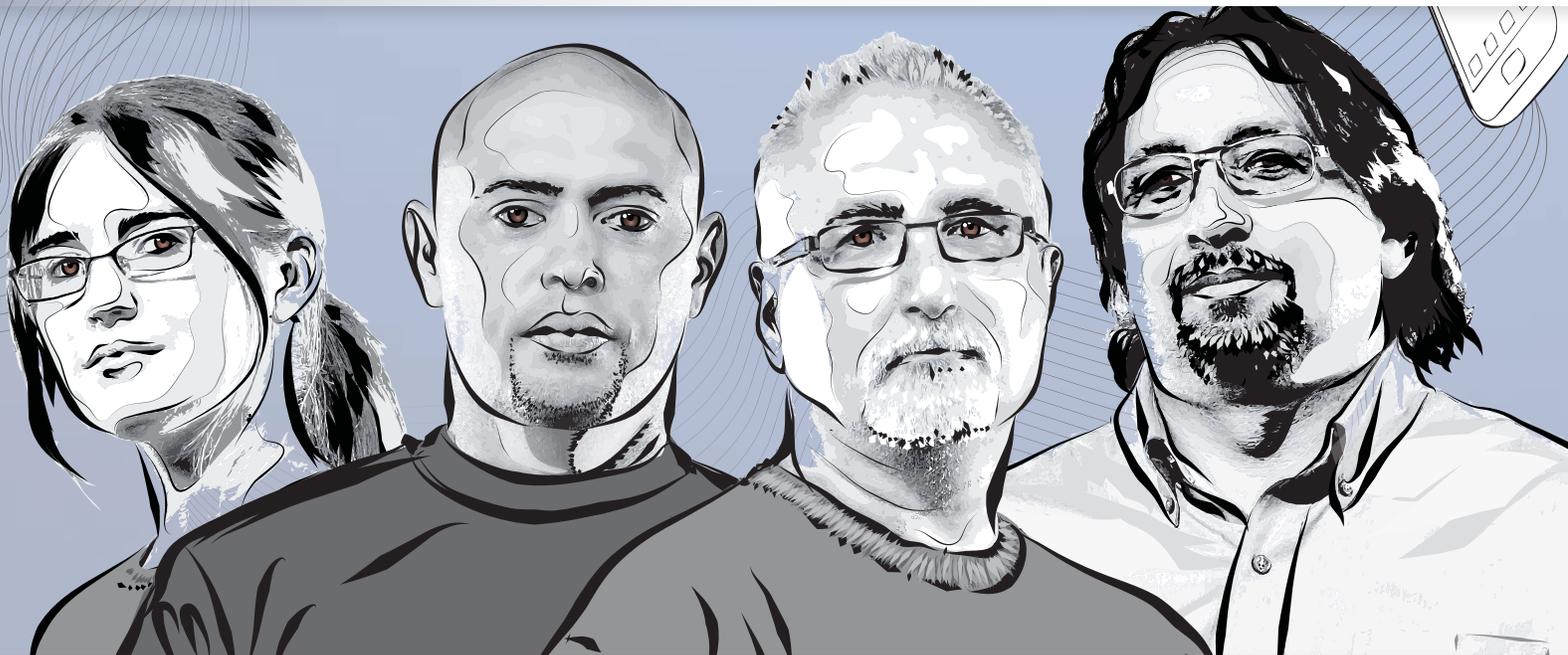
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Q & A

A few minutes with... Dana Morningstar

Q. What does innovation look like in the School of Contemporary Media?

A. The School is a Centre of Excellence for applied media studies and has 18 programs in radio, TV, visual effects, music industry arts, fine art, photography, journalism, film, interactive media, animation, TV news, public relations and theatre. For years the programs have been innovative in the use of new media, community partnerships, and client-based projects. Fanshawe has the good fortune to have M Building, a building with an operational focus on media education that allows our programs to work with each other in studios, and to share equipment and facilities and projects between programs. Of course, our faculty members and technicians are the people leading this innovation. As an applied media and performance school we have skills in all sorts of storytelling media, visual and audio expertise. We build websites, rich media interactive sites, provide internet solutions, produce documentaries and broadcasts for radio, TV and web, and develop social media campaigns and assets for advertising and public relations.

Q. How does applied research fit into this picture?

A. We're at the stage now where we have the ability to formalize this culture of innovation. We seek to innovate, but also to document and quantify results, and then continuously build on those results. Our team in the Interactive Media cluster (programs with about 300 students) have had an exciting two years moving to this more formalized approach - working with clients and building internal capacity. Over the next few years I hope to see some of our other programs engaging in applied research related to curriculum. As well, both the province and the federal governments are supporting growth in the digital sectors to differentiate Canada, grow the economy and commercialize talent and digital content.

Q. How has your School gone about growing a research culture?

A. We have created a new Project Integration Coordinator position, currently held by Prof. Robert Haaf, to assist faculty in framing projects in a research context and putting the work in the hands of students as a learning experience. We also have some programs that participate in a Media Consultancy utilizing the skills of some students. The School of Applied Science & Technology recently had an industrial research chair position created. We can see a time where a similar position will be needed in our area.

Q. What is a Media Consultancy?

A. Our program teams have always worked with community partners on real world projects, and most of our programs require students to do internships. The Media Consultancy is a natural continuation of these embedded practices. Students who qualify for the Media Consultancy will meet the same learning outcomes of an internship; however, they may find themselves on a cross-functional team with student representatives from public relations, photography, film, and journalism to create a piece for a not-for-profit organization. Most internships have the student alone working for a company. The Media Consultancy will have a group of students working on a project together.

Q. How do these applied research and innovation activities benefit your students?

A. These are clearly resume-building experiences. And, as anyone who has worked with students knows, fresh eyes on older practices often leads to very interesting results. As well, partnering students, with others with different creative skills sets expands students' knowledge and experience.

Q. How do you envision the next few years unfolding in regard to applied research in your School?

A. Already, demand for community-based research projects in the curriculum exceeds what we can deliver. We want the projects to be purposeful and achievable for students, and provide opportunities for faculty to experiment reflect and grow this teaching style. We have to have partners who understand and respect our academic goals in regards to graduating skilled students. As well we'd like to arrive at some thematic specializations. Right now the interactive team has two loosely-defined areas of research: research related to education; and research related to medical disciplines. Five years from now I expect that the reputation of the School of Contemporary Media projects will have grown because of successful, innovative projects that are just in the planning stages now. Our new downtown campus will be a catalyst towards growing innovation and research.

Dana Morningstar is Chair of Fanshawe College's School of Contemporary Media.

newsflash



Wesley from Trojan Technologies delivered the keynote address on innovation

FIRST STUDENT RESEARCH AND INNOVATION DAY (SRID) FEATURED FANSHAWE'S FINEST

Fanshawe College's First Annual Student Research and Innovation Day (SRID) is drawing kudos for the diversity and quality of student research projects. More than 40 student teams, a total of 88 students in all, submitted their projects to a selection committee, and 24 projects were ultimately selected for display at the SRID competition.

The April 4 event began with a keynote address by Wesley D. From, Vice-President of Engineering at London-based Trojan Technologies who spoke about innovation and its place in a global economy. Judges included Fanshawe Senior VP Academic Dr. Lane Trotter, David Ciccarelli, CEO of Voices.com, and Jessie Maggard, Business Development Officer for the Ontario Centres of Excellence.

The event was organized by Applied Research and Innovation (ARI) staffers Otte Rosenkrantz and Lynne Blunt, with the help of a committee of volunteers. First place winners were:

Arts/Humanities

1st Place: A Comparison of Spare Time Activities of Direct Entry First Year Post Secondary Students in Canada and China. **Researchers:** Xunxin (Celia) Liang; Songbo (Sam) Kong; Yaxin (Betty) FU; and Xiaojie (Xiao) Ma.

Business

1st Place: Jesse's Journey Google Campaign. **Researchers:** Adam McGrenere; Reanna Dyson; Phil Pasma; Kathleen Schafer; Elizabeth Gray, advisor.

Health/Human Services

1st Place: Asthma Management in the Community: Preventing Emergency Room Visits and Saving on Health Care Costs. **Researcher:** Sarah Ireland; and Julie Brown, advisor.

Media/Design

1st Place: Painted Pathway Nature Park – A Rehabilitated Gravel Pit. **Researchers:** Eveliene Kusters; Jessica Shore; Eli Paddle and Ben Billings, advisors.

Science/Technology

1st Place: The Pro-Mow v1.0. **Researchers:** Brad Young; Chris Talbot; Roy McInnes; and Brad Smith and Dr. John Makaran, advisors.

A complete list of winners can be viewed on the Research Fanshawe website at <https://www.fanshawec.ca/services/research/research>

Planning is now underway for a second SRID as well as for Fanshawe's first research day for faculty.



Award winner Sarah Ireland (right) explains her project on asthma management in the community to a SRID visitor. The project took first place in the health/human services category.



Patrick Hebert, who along with co-investigator Brendon Ross took second place in the science/technology category, demonstrates their solar powered ventilation system project.



SRID judges (shown in background row) Jessie Maggard (left), David Ciccarelli (centre) and Dr. Lane Trotter visited all the displays and assessed each entry before making their final decisions. * *

research 101

INTEGRATING APPLIED RESEARCH AND INNOVATION INTO THE CLASSROOM

By Robert Haaf, Ramon Delgado, Eleanor Fullick and John Bennett

This article is a how-to on ways of integrating applied research and innovation into college programs. It recounts our experiences, specifically, what we have learned so far. But let's begin by first discussing the why.

Integrating real-world client experiences, new technology development and applied research projects into existing curriculum all requires a lot

We are teachers, first and foremost, and we need to pay attention to the things that work...

of work to plan and execute, with no assurance of complete success. So why do it? What does research bring to learning innovation? For us, the why that really matters always comes down to the experience for our students. We are teachers, first and foremost, and we need to pay attention to the things that work for our students.

When we began to integrate actual research projects from external clients into our curriculum -- first as a single, integrated project across one or two of our courses -- students told us that it was the single most significant learning experience of their time in college. These comments came from students at all skill levels, many of whom surprised

themselves (and us!) with the depth and professionalism of the work they completed. Some students said it was the first time they felt that they might actually be ready for the real demands of the industry. We began to see that applied research projects needed to be a much more significant part of our overall curriculum, and that we needed processes and workflows in place for project development within our team.

The Interactive Media Program Cluster in the School of Contemporary Media includes one and two-year diploma and certificate programs. So, at any given time, we have students with varying skill levels in a variety of areas in digital media. This has allowed us to approach projects in several ways.

Scenario 1

A company wishing to develop a software application becomes the client. Students (chosen by faculty and the company), often from different programs and years, become the core project team. Project work replaces assignments within multiple courses, creating an experience that is closest to the situation students will face in the industry. However, this approach comes with the need to have clear management and hiring strategies in place that mirror the real-world company scenario, and a plan about how the team will be managed. What are realistic and specific expectations for the project? How does that align with client expectations? What happens if a student is 'fired' for non-performance? Choosing the right people, having a project management plan, and developing strategies for dealing with dysfunctional teams are crucial.

Scenario 2

A company becomes the client for an entire term for all students in a given level. Group development teams are formed, and it becomes

a competitive, integrated project across most, if not all, courses in that term. Throughout the term, students formally present their work to their professors and the client, with a final presentation where the top work is selected, awards presented, etc. Success, measured in student and client satisfaction, has been significant for us in these kinds of projects, and we often see student teams going well beyond the material covered in their classes to solve specific problems. However, we also have learned what NOT to do:

- While faculty is the final arbiter for project decisions, most projects require more direct day-to-day management of the team, and a 'peer as leader' scenario is fraught with difficulties. We have tried addressing this by having post-diploma program students (who benefit most from project management experience) manage project teams made up of diploma-level students.
- While client involvement and feedback is a critical component of these projects, as is peer feedback and critique, it is important to students that this feedback does not overly impact grading within the courses. Faculty is still viewed as having the most in-depth knowledge and best perspective to evaluate student work and performance.
- Self-organized teams, even with appropriate guidance, can lead to weaker students aligning themselves with stronger students and not putting in equal efforts. Having faculty members structure the teams is not only more successful overall, but also is more reflective of the industry.

As our processes evolved with our projects, we began to understand how using an applied research model as a structure for all types of projects allows us to become more focused, and leads to a more objective analysis of the effectiveness of the projects in terms of student experience and success. Most people would agree that change is good; everyone should agree that evidence-based change is better.

As teachers, how do we ultimately know our methods are effective? We initially relied on students' anecdotal reports of their experiences, and felt our approaches were valid. We have discovered that approaching any type of innovation as systematic, longitudinal research into the effectiveness of these approaches leads to more structured planning, more consistent and measured execution, and serves as a better means of controlling scope creep through specific and measurable research questions and results. The applied research model provides a structure that helps avoid a number of common pitfalls in client-based projects, and such projects can be productively designed to test specific questions about their impact on student learning and satisfaction. Many college teachers regularly engage in innovative curriculum activities, and -- as we learned -- many projects can benefit from an action-research approach.

So, our advice is this: Don't just do it. Do it in a manner that allows you to plan effectively, maintain control of project scope, build on successes, and communicate those successes effectively and often. Your students will show you it's worth it!

Introducing Innovation

When it comes to innovation, the School of Contemporary Media is no ingénue.

An academic area with a long history of innovative community collaborations – from Canada’s first licensed, college-run community radio station to cutting edge programs in gaming and interactive digital media – Contemporary Media is setting a standard for others.

Enter the Interactive Media cluster team. Anyone who thinks that technology is incompatible with creativity hasn’t visited M Building lately. There, in a group of small multi-media studios, team faculty, staff and students are collaborating to find new ways to communicate, entertain and educate.

“The Faculty of Arts, Media and Design is an active supporter of embedding the practice of applied research and innovation into our culture,” says Dean Gary Lima, whose faculty includes the schools of Contemporary Media, Design and Language and Liberal Studies.

“Colleges have historically had a direct relationship between education and employment. Applied research and innovation projects enhance those relationships between the College and industry, and allow us to assist our community partners to provide tangible solutions to challenges,” Lima says.

“I support incorporating research projects into our curriculum because it engages students and faculty in solving

real-world problems, keeps faculty current, encourages development of new learner-centred teaching techniques, and contributes to skilled graduates and economic development,” he says.

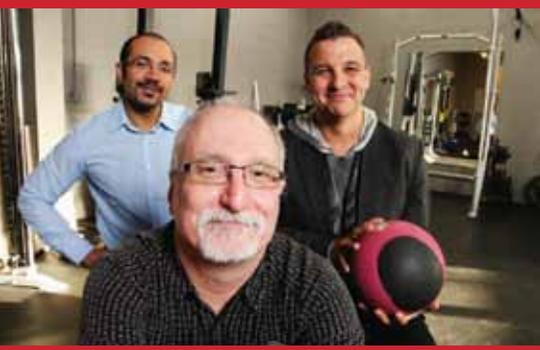
The track record so far is impressive. Industry-driven projects designing sports graphics for Global TV. Field testing of new Apple-based video, audio and editing software for VeriCorder Technology Inc., a company seeking to revolutionize electronic newsgathering. Creation of an Internet radio station – stellarradio.ca – that uses a unique, interactive talk radio format known as “visual radio”. A documentary filmed on location in Rwanda that examined the country’s attempts to recover from the genocide, and featured the stories of people who survived.

Today, researchers are focusing on how to use the behavioural principles behind gaming to motivate students to engage with the curriculum, learn and succeed. Another project examines the use of technology to exchange knowledge and ideas, with accessibility built in to allow inclusion of students with disabilities.

“The School of Contemporary Media has been growing a research culture, particularly in the Interactive Media cluster of programs. Our hope is that the influence and success of these research projects will transfer over to our other disciplines of study,” says Lima.

So, ladies and gentlemen, without further ado – we present current applied research and innovation in the School of Contemporary Media.

Scenes from the School of Contemporary Media From top: the motion capture studio provides the resources for animation and video game development; an applied research project with VeriCorder Technology Inc. sent Fanshawe broadcasting students Ashley Rowe and Nick Wynja to the Vancouver 2010 Olympics to field test the company’s new broadcasting and editing software for iPhone and iPod Touch; Prof. Robert Haaf heads the JAMII development team (see page 7); and the downtown London building that will house Fanshawe’s creative arts and performance programs.



JAMII PROJECT EXPLORES FITNESS OF COLLEGE-INDUSTRY COLLABORATIONS

By John Huff

Having trouble sticking to your fitness goals?

Help may soon be on the way, courtesy of a new smartphone application that is currently being developed by Fanshawe students and London-based fitness studio LIVE360°. The app, called JAMII, is taking training to a new digital level.

It's also providing an excellent case study for researchers interested in how real world projects impact student learning.

Fanshawe students and faculty have been working on JAMII for the past year. Much more than a static repository of fitness and nutrition information, the app is an interactive experience that lets users create support groups, issue challenges to each other, share resources, and directly access trainers from LIVE360°.

While it is definitely a progressive and practical project for students to tackle, JAMII is also an experiment for Fanshawe faculty as they work

on building client relationships into digital media programming.

...the app is an interactive experience that lets users create support groups, issue challenges to each other, share resources, and directly access trainers...

“What we're really looking at with JAMII is the model we've set up to make apps like this here in the school,” says Robert Haaf, Coordinator of Interactive Media & Design programs at Fanshawe. “For this project, we hired one of our third-year post-diploma students and two of our second-year students. Instead

of doing the assignments in some of their classes, JAMII became the thing that they were doing. We're focusing on what benefit this has as part of the digital media and interactive media curriculum.”

The JAMII project has received funding from the Colleges Ontario Network for Industry

Innovation (CONII). Student team members have worked directly with their staff leaders and LIVE360° representatives to understand what their client wants and to build in the required functionality – vital experience that they will take with them into the workforce. After beta testing in the summer of 2012, JAMII is expected to be fully operational and available for download from an online app store later this year.

Haaf says that the JAMII project could open doors not only to further external client experiences, but to cross-program partnerships for students at Fanshawe.

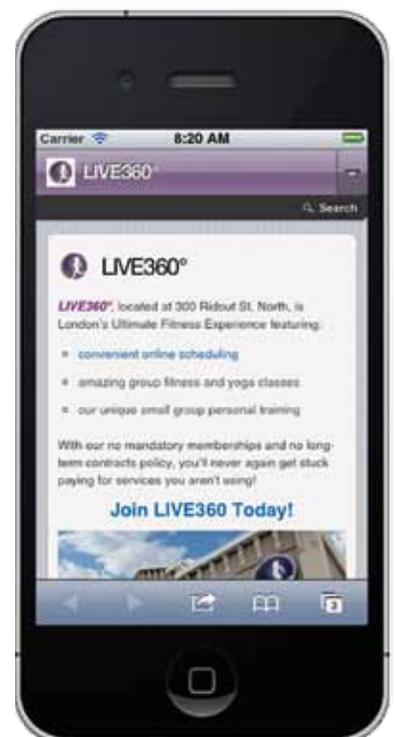
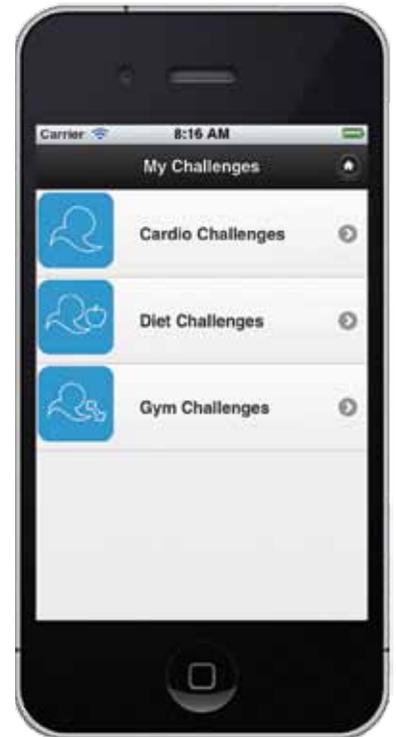
“We want to integrate business and marketing people into these teams ultimately as well,” he says. “It would be really nice to have a team that's made up of somebody from marketing, somebody from one of the business programs, somebody from the IT programs for heavy back-end computer stuff, and some of our students. There are ways that it could grow to incorporate other programs that I think would be really cool.”

So far, anecdotal evidence from JAMII and other external client projects suggests that students benefit greatly from the experience. More students will be involved next year, which will present Fanshawe with an opportunity to do research on whether they benefit from this kind of learning, and how it can be improved.

“We really want to have a working model that we can build in so our curriculum is based in some significant way around client-based projects,” Haaf says. “The more projects we can integrate in, the better.”

The company benefits, too, says JAMII co-creator and LIVE360° CEO Marty Menard.

“Partnering with Fanshawe College is a dream come true for us, as it expands our company's development to include their cutting-edge expertise and a team-centric approach”.





Robert Haaf (left) and John Bennett.

MyPath opens digital doors for prospective college students

By John Huff

In an era of tough and increasingly global competition, how can community colleges better attract and retain their students?

That question has had special significance at Fanshawe over the past couple of years as the college has undertaken its Strategic Enrolment Management (SEM) initiative – a comprehensive program aimed at improving student recruitment and services. It also has inspired a compelling research project for faculty and students in Fanshawe’s Interactive Media Design and Production program.

Robert Haaf, Coordinator of Interactive Media programs at Fanshawe, was part of a SEM committee that looked at alternative ways to engage prospective students. He says his work on the committee, plus his experience at the program level, got him thinking about bringing recruitment and retention into the digital age.

“We were talking about retention issues like program fit, and it really struck home for me because I’ve noticed that in all of my time in multimedia programs here, program fit has been a huge deal for us,” he explains. “A significant number of students come into our program without knowing what it’s really about. We started discussing the idea of having some sort of online, digital set of solutions to see if we could address issues around program fit and make students better prepared on a career basis for what they’re getting into.”

Those discussions led Haaf and a team of students and faculty to create MyPath, an online portal that meets prospective students where they live in terms of technology. Built around a community concept, the portal encourages users to create a profile, select their areas of interest, and interact with other people as a way of learning more about their career goals and how to achieve them through college courses. It delivers a deeper and more customized level of program and career information than applicants would normally find on a college website.

“We need to start triggering with potential students if we want to grow our base and engage them early on,” Haaf says. “We have to start engaging in the things they are used to, including social media and community-based types of Web experiences, which colleges typically aren’t doing at this point. If they come in here through a process that makes them better informed about things that they might like and what to expect, there is just a better fit and better overall satisfaction.”

When it is finished, MyPath will work with key words identified in student profiles to lead them to more detailed information about their areas of interest. A prospective student who identifies “gaming” as an interest, for example, can follow that path to a variety of careers within the gaming industry, from programming and character design to digital animation. Career paths will include recommendations on which college programs to take. Ideally, they will also offer “day in the life” videos featuring people in those professions, as well as real-time online chats and other resources.

MyPath is currently in the initial phases of development. A limited but functional version of the portal will be tested this year. When it is fully rolled out, researchers will compile and compare satisfaction and retention data on groups of students who have and have not used it to enter the college system.

While the portal won’t necessarily be a Fanshawe College site, Haaf says it has great potential to benefit the college.

“Fanshawe has got to be a destination,” he says. “No other college is doing this, and I think if people see that Fanshawe is spearheading something that provides them with information and gets them engaged on a regular basis before they’ve even gone through the application process, Fanshawe will stand out significantly from other colleges.”



Robert Haaf

COVER STORY

MEDIA IS A MESSAGE WHEN IT COMES TO STUDENT ENGAGEMENT

By Leslie McIntosh

Facebook. Twitter. MySpace. Google+. Flickr. YouTube. Tumblr. delicious.

These social media sites – some of which sound as strange as Klingon to the boomer generation – may be changing the way we ultimately educate students.

Robert Haaf, a professor in Fanshawe’s interactive media programs and Project Integration Coordinator for the School of Contemporary Media, is leading a team of researchers exploring ways of using this technology to engage a generation of students raised on the Web.

Haaf, a quiet, unassuming man, came to Fanshawe in 1998 after working at Western University, the Thames Valley Children’s Centre and several educational software and multimedia companies.

A former clinician with a Master of Science degree in Communication Disorders and Sciences and a BSc in psychology, Haaf has spent much of his working life in augmentative and alternative communication and rehabilitation, teaching, developing medical and educational software and working with adults and children with disabilities. His previous research focused extensively on the use of assistive technology for educational and medical purposes.

“I waited 12 years before I returned to research,” says Haaf. “Now, my research is completely student driven, action research. I am focused on increasing opportunities for learning and preparing students to go out into industry.”

Some of Haaf’s recent projects – all of which involve multimedia students – include development of a mobile application for a London health and fitness firm, game development with a community youth organization, a study into gamification and learning, and an exploration of a social media based portal that allows postsecondary students to make better program choices. He is principal investigator on some projects and a co-investigator on others along with colleagues Eleanor Fullick, John Bennett and Ramon Delgado. Haaf also has worked with School of Human Services faculty member Anne Hill on a software application for SMART boards that allows students to use classroom and mobile technology to build knowledge and collaborate on specific topics

While doing research, Haaf says he approaches it from the perspective of a teacher, and isn’t satisfied to merely use a teaching method. Teachers may use certain methods, “but how do we know they are really effective?”

Applied research allows teachers to examine methodology by exploring specific questions that are testable and measurable.

The benefits of such research for faculty means a structure to objectively evaluate teaching methods, use their findings to inform curriculum, and refine their instructional techniques, he says.

For example, current research on learning for the so-called “Net” generation identifies some important differences between the way today’s youth learn and the learning styles of their parents and grandparents. An anthology of research studies, *Educating the Net Generation* (Diana G. Oblinger and James L. Oblinger, 2005, <http://www.educause.edu/research-and-publications/books/educating-net-generation>), identifies general characteristics of the Net generation sure to resound with Fanshawe faculty. These include:

- A nonlinear thought process, sometimes described as hypertext minds that “leap around”;
- “Attentional deployment”, the ability to shift attention rapidly from one task to another;
- Ability to respond quickly and an expectation of rapid responses from others in return;
- A tendency to ignore what does not interest them;
- A preference to express themselves through images and an ability to weave together images, text, and sound in a natural way;
- A learning style dubbed “inductive discovery”, which means they learn better by doing than by being told.

So how can educators design interactive learning methodology that engages students while delivering the knowledge and experiences they need?

For Haaf, it’s about meeting students where they live – in cyberspace – and using the technology students use daily as a platform for teaching curriculum.

For example, projects such as the gamification study explore the behavioural principles inherent in gaming (rewards, positive reinforcement and competition) to motivate young people to engage with curriculum. *(See page 11 for a story on the gamification project.)*

The project involves setting up a gamification website that tracks assignments and timelines, rewards students with points for completing required assignments, gives extra points completing voluntary assignments, and provides some friendly but anonymous competition, much like students would experience when playing a game.

(Continued on page 10)

MEDIA IS A MESSAGE

(continued from page 9)

The team is planning a number of future projects that will investigate using gamification to teach code and other interactive media skills Haaf says.

As the School of Contemporary Media's first Projects Integration Coordinator, Haaf's role is to mentor and engage other faculty and staff in applied research projects. The School has always been involved in technological and learning innovation, but now that activity is being formalized and structured in order to build capacity in the School, increase collaboration, and help guide the School's future direction.

Part of that strategy involves offering media consultancy services to companies and community organizations in which students execute real-world projects under the guidance of skilled faculty and staff, says School Chair Dana Morningstar.

Haaf says it's important to understand that learning doesn't just happen in a classroom.

"I think you would find that all teachers agree the most significant learning happens outside of class through work that students do on their own," says Haaf.

"It doesn't necessarily change what we do in class, but it provides a structure for students to extend their boundaries, and hopefully increases graduate success."

The work has allowed School researchers to focus on the essential ingredients for lifelong learning, Haaf says.

"Some students think the most important thing teachers do is to teach them stuff. Sometimes they become irate if teachers don't show them how to use every tool and solve problems for them.

"But I think the most important thing we can do is to teach students how to figure things out. Anybody can learn about the tools, and we are always limited in what we can do in class. But you can't have a class in learning how to think."

Fanshawe teams with Concierge to improve online networking

By John Huff

Professional networking websites have become a major part of the online experience for many Internet users. A wide variety of networking communities exist in cyberspace, giving members opportunities to build vital connections that will help them grow – or even begin – their careers.

But can online networking be more effective?

Robert Haaf thinks it can. To that end, Fanshawe's Coordinator of Interactive Media & Design programs has been working with a company called Concierge to take online networking in a different direction. He and a team of students are building a site for Concierge that is aimed directly at digital media professionals – a more focused resource that he thinks will better serve users than traditional websites or more broadly-based online networking communities.

"It's one thing to offer an informational site where people post stuff, but what's going to keep them coming back to a particular site like this?" Haaf asks. "[It's about] new information, personal connections that you make, people that you follow, and people that are always updating and doing new things. Changing content, particularly personal and community-based content, is a big part of what modern websites need and not a lot of modern websites have."

Like most networking sites, Concierge will give users the chance to create an online profile, highlight areas of interest, and build a virtual portfolio of their work. They will also be able to interact both publicly and privately with other users, whether they are job-seekers, businesses, academics, or students. The difference is that it will offer much more media functionality, and it will serve a specific community.

Four Fanshawe students have been involved in building the site over the past year, but as research on Concierge's efficacy begins in the fall, many more students will interact with it.

"We want to be able to integrate Concierge into our curriculum and see if, given the parameters we put on it, we engage our students," Haaf explains. "Does something that is this specifically focused have advantages that more general business-to-business networking doesn't offer? Do we see people getting jobs or at least getting more connections than if they're just putting up their own website? Are they walking out of here with more contacts and with more positive response from the industry? Those are the sort of things that interest me with Concierge."

The site is expected to be fully functional this summer. In the fall, students from designated Fanshawe programs will sign up for Concierge as part of their professional development. Their experiences with the site – including connections they make, feedback they receive, and Web hits they generate – will be used to measure the site's usefulness for users.

Learning method research focuses on how students “play the game”

By Leslie McIntosh

Eleanor Fullick knows about games and technology. And her experience as a gamer and recent graduate of Fanshawe’s Media Theory and Production program gives her a unique perspective as a researcher investigating “gamification”.

A multimedia technician in the School of Contemporary Media, Fullick is principal investigator (PI) on a pilot study into gamification as a methodology to engage and teach today’s postsecondary students. “Gamification” is the term used to describe the application of gaming behavioural principles to other purposes, such as education or marketing. Games are based on the theory of positive reinforcement, – achievements and rewards motivate gamers to continue to play in order to reach higher levels or earn some other type of reward or recognition. Some games also allow participants to compete directly, so competition becomes another motivator.

Fullick says the theory behind gamification is, put simply, about presenting curriculum in a way most familiar to students. For the so-called Net generation, the Internet, social media, mobile technology and texting are as natural as these technologies are alien to their grandparents. Current debate in the field has focused on the fact that most teaching methodologies were designed decades ago and may no longer work well for teaching the so-called Net generation. The gamification pilot project is the first of a planned program of research aimed at examining this issue. Fullick’s study was funded by the Fanshawe College Research Innovation Fund (RIF).

Interestingly, Fullick says her project came about as a result of a faculty conversation about student attitudes. “Some profs were talking about how some students today feel entitled, believe they deserve top grades all the time, and complain to their teachers when they don’t get them. Most of the problem is with students who do the minimal work required, or turn in low quality work, but still expect to get 100% on their assignments,” she says.

She observed that young students and teachers had two fundamentally different perceptions about the awarding of grades: based on their experience and that of their peers, the professors believed students start a course at zero, and then earn grades through successful completion of assignments, tests and exams. Conversely, Fullick says young people begin a course with the perception of being at 100%, so each subsequent lower mark they receive is seen as a failure or a punishment. This led the investigator to speculate whether teaching students in a different way – using a system of basic rewards for all and extra rewards for others – would work as a way to better motivate and engage young people.

Working with co-investigator Robert Haaf, Fullick developed her research using a class of 11 students from her web design course, part of the Fanshawe-Western Media Theory and Production joint diploma/degree program. The course deals primarily with fundamental scripting and coding concepts used in website development. The research took place in the winter 2012 semester. In the first part of the term, students were taught using traditional methods. In the second half, gamification methodology was used.

Fullick set up a website (see background in Fullick’s photo, this article). Students could redesign their websites (different colours, for example) to personalize them and share their themes (called “skins”) with classmates. Each student’s individual website had a dynamic, moving timeline showing assignment deadlines, how much time was left in the term to complete the work and the student’s achievements. Students also received points for such activities as class attendance, participation and helping other students. Additional points were earned for “sidequests”, i.e., bonus assignments, which could be counted for up to 20% of the student’s grade.

While all students got points, using positive reinforcement meant more points were earned by students who turned in assignments early, did extra work, etc., than others. Small rewards or privileges were offered for top students in specific categories. Students who consistently turned in work early, for example, got a pass to be 24 hours late with a future assignment without penalty if they needed a days’ grace. There also was an anonymous leaderboard that showed progress by all participants, with prizes awarded to the top students. (Screenshots for the website can be viewed online at <http://www.fanshawemultimedia.com/screens.html>.) Fullick says using a website was beneficial and made it unnecessary for the research team to manually collect that information, since the site automatically logged critical data on students’ progress.

Preliminary findings indicate the students felt positively about their experience and liked the achievement system and associated rewards. They especially liked the idea of earning more points for bonus assignments. Data showed students took on bonus assignments at first, although that trailed off as the course progressed. Fullick says she suspects that happened because students were busy with their university courses later in the term. Interestingly, students perceived that the website motivated them to submit assignments earlier; however, submission time data didn’t bear that out.

Fullick says the pilot did not point the researchers toward any definitive conclusions – the sample size of 11 students was far too small for that – but the pilot has raised other research questions and will help to scope future research. Other potential areas of investigation may include repeating the study with a larger sample, using the website as a time management tool for students, and analyzing student achievements across age or gender lines.

“We believe our work will show that this approach has great promise for students. Although we used multimedia-related content and multimedia students in our pilot, we think this method should work just as well for teaching courses in other fields, for example, English,” says Fullick.



Eleanor Fullick

THINKING AND KNOWLEDGE BUILDING INSPIRES NEW SMART BOARD APP

By John Huff

In many ways, technology is the next frontier for modern classrooms. New tech tools and software are changing the way teachers teach and students learn, all with the goal of improving the experience for both.

Fanshawe may have an important role to play as learning technology evolves in the years ahead. In fact, last year a research team at the College began looking at ways to integrate online and classroom learning, developing a Web-enabled SMART board application that allows students to contribute to discussions via handheld devices. Built around the Six Thinking Hats system of brainstorming and knowledge-building, the application breaks new ground in terms of giving students the freedom to express themselves.

“One of the things in teaching that’s always been a challenge is helping students learn to think well,” says Prof. Anne Hill, School of Human Services, who was involved in the project. “What has always bothered me is that it



The SMART project development team. From left to right: Eleanor Fullick; Brian Dillon; James Shirlaw; Damon Muma; Jeremy King; and Andrew Xuereb.

would be nice if we could have students all able to contribute their ideas, and it’s really difficult in a classroom situation to have everybody engaged at the same time.”

The software application is designed

to resolve that problem. It allows students to send their ideas directly from a laptop, smartphone, or tablet computer to a SMART board, where a facilitator can highlight or categorize them within the Six Thinking Hats methodology. It provides more opportunities for students to be involved and demonstrate their knowledge.

Graduates of Fanshawe’s Interactive Media Specialist program were hired to build the application using a grant from the Colleges Ontario Network for Industry Innovation (CONII). The product was presented to representatives from SMART Technology in Toronto, who were impressed with its potential. It was also put through field testing at Fanshawe last year, though its limitations – it isn’t developed enough to work outside the classroom yet – made assessment difficult. Even so, 93.3% of students surveyed said they see the benefits of using technology to support knowledge building.

Further funding is the next step in turning the application into a more complete tool that will work outside the classroom. Fanshawe is partnering with SMART Technology and Bridges, which makes assistive technology, to secure research grants.

Hill says she is looking forward to expanding the application and measuring its effectiveness in the future.

“In educational research it’s very difficult to tease out cause and effect because you can’t control things,” Hill says. “But it would be really interesting at some point to do a control group study where you have teachers teaching with the tool and without the tool, and seeing if there are significant differences in student learning and their ability to think critically.”

presentations & publications



Tina Bonnett

Prof. Tina Bonnett, School of Human Services, recently published two articles in early childhood education journals. *What’s the Rush? Slowing Down Our ‘Hurried’ Approach to Infant and Toddler Development*, appeared in the January/February issue of *Infants and Toddlers*. A second article, *An Interdisciplinary & Collaborative Approach to Ontario’s Best Start Initiative*, was published in the winter 2012 issue of *eceLINK* magazine.



Marguerite Moore

Prof. Marguerite Moore, School of Information Technology, has published a paper entitled *Damages and Specific Performance: A Tale of Two Remedies* in the 2011 Real Property Reports, a resource used by lawyers across Canada. The article examines the emerging trends in current case law relating to the criteria and tests for determining the appropriateness of damages in lieu of specific performances in the context of real property transactions. For example, the

paper analyzes how the law is moving in different directions with respect to residential compared to commercial properties. Current case law increasingly asserts that most residential, business, and commercial properties are now mass-produced in the same way as other consumer products. In addition, the paper analyzes the remedies of specific performance and damages in the broader economic context of the controversial efficient breach theory. The author suggests that the growing domestic and global awareness of the finite and environmentally critical nature of land and resources may contribute to the legal principles of specific performance and the quantification of equitable damages becoming an increasingly important, dynamic, and possibly contentious area of Canadian real property law. The Real Property Reports are peer-reviewed, national in scope, and available in print in law libraries. They are also available online in WestLaw Canada, which is found in law libraries and post-secondary institution libraries. Professional legal materials are indexed and sourced in print and online by Uniform Legal Citation. The citation for *Damages and Specific Performance: A Tale of Two Remedies* is 2 RPR (5th) 175-208.

International research focuses on student satisfaction

By Simone Graham



Community colleges are not travel agencies.

That may seem obvious, but it's a distinction that Wendy Curtis, Fanshawe's Manager of International Partnerships, says colleges need to make when they send students on exchanges and other international learning experiences.

Curtis is the author of a paper called *Cars Are Small, Food is Plastic and Friends Are Forever: Ontario College Student Voices on Study Abroad*. Released in the fall of 2010, it is the product of her research on the experiences of Fanshawe students studying internationally. It also answers questions she had about whether students are making the connection between those experiences and their future job prospects.

"We're not travel agents," Curtis insists. "What we do here has to be connected to what the learning outcomes are, and in our case, it has to be directly related to employability. How do we know that we're preparing the students to get the best out of the learning that they can? What might they teach us about what we could do better?"

Curtis was inspired to investigate those questions through her contributions to a study that Queen's University researcher Sheryl Bond prepared for the Canadian Bureau for International Education. The study, titled *World of Learning: Canadian Post-Secondary Students and the Study Abroad Experience*, looked at why so few university students choose to study internationally.

As part of her work on the study, Curtis went in search of information on the experience of community college students living, working, or studying abroad. To her surprise, she couldn't find any information on the topic. Recognizing a gap in the research, she began to question whether colleges are doing everything they can to help students get the most from their international learning opportunities.

Curtis designed a comprehensive survey to find answers to those and other important questions. Initially, she identified and contacted 56 Fanshawe students who had studied abroad through the Ontario International Education Scholarship program. With development direction and assistance – plus a vital research grant of about \$5,000 – from Fanshawe's Applied Research and Innovation department, she hired an outside assistant to interview about a dozen students who agreed to participate.

The surveys painted an interesting picture of what students were – and were not – getting from their experiences. In particular, students who went abroad without faculty supervision seemed to miss a key part of the equation. A student who studied in Japan, for example, returned with many pictures of plastic food, but no real concept of how working within the Japanese system would inform her career as a Child and Youth Worker in Canada.

"In the end, she talked about the friendships that she built, and that's the transformative piece that's really important, but I was trying to get to how it connects to employability," Curtis explains. "The transformative piece you might get without Fanshawe, but the direct relationship to you and your career is something that we can provide. Our job is to help students become employed."

Other students were very enthusiastic about how their experiences would tie to their future. As one student put it, "I never thought it would have such a big impact on my career." Another agreed that studying overseas provided opportunities to "do things I never had to do if I'd stayed home, and that makes me a stronger candidate for work."

Fundamentally, the surveys suggested that faculty-led experiences are a better way to help students engage in learning abroad. Curtis cites the work of Landscape Design students who traveled to Brazil with a professor who not only required them to do regular sketching and keep logbooks, but opened doors to interesting study opportunities during their stay, including visiting a famous architect's house.

"Faculty-led experience continually guided the learning around the subject matter at hand," Curtis says. "Rather than the students going on their own and exploring, these students were guided in that exploration to see things they otherwise would not have seen. How many students would go and sketch for an afternoon? What they came away with was very different."

Curtis's research is already changing the way the college and individual programs approach international learning.

"We didn't have a coherent, standard set of questions that we asked students when they got back, and we didn't have a whole lot of material that would nudge them along in their thinking in terms of what they might be looking for when they were overseas," she says. "What we can do for those students who travel on their own is provide a different framework for them before they go. [When] we've given them the tools, we can ask for a different level of feedback from them when they return."

As part of that framework, programs are developing pre-departure checklists and other resources to get students thinking about what to be aware of when they go abroad. The College also is preparing more opportunities for students to report on their experience and articulate its value to their employability.

While the project was rewarding on its own, it also created opportunities for Fanshawe to be involved in further related research. In the fall of 2010, Fanshawe was invited to be one of the first six Canadian colleges to participate in the UK-based i-graduate International Insight survey. The survey looks at international learning from the opposite perspective, measuring how well institutions accommodate and support visiting students. Fanshawe performed exceptionally well on its first survey.

In the just-released 2011 survey, Fanshawe ranked fourth in the world — and second in Ontario — in terms of international student satisfaction. Fanshawe's results in the learning category were even more impressive — number one in a category that measures satisfaction with teachers, learning facilities and academic services.

The 2011 survey involved more than 200,000 international students from 238 institutions in 16 countries.

“What we do here has to be connected to what the learning outcomes are...”

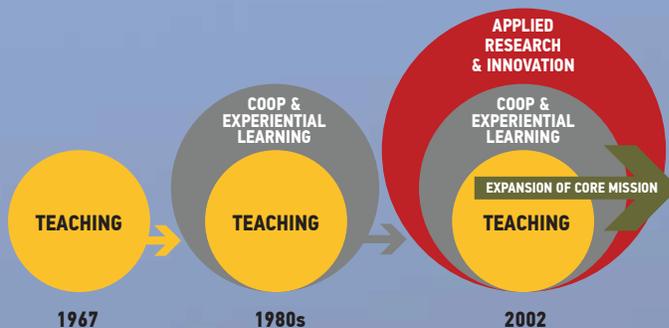


on my mind

By Dan Douglas

As this is my inaugural column for On my mind, I thought I would pose the initial questions that, quite self-servingly, allow me the opportunity to provide my perspective on applied research and innovation in Ontario colleges. I have had the pleasure of being involved with applied research projects at the program level for the past few years and have seen the tremendous value to students, faculty, staff, and the institution. But how did research end up in the college system? Is research not something that falls into the domain of the universities? What value does research add to the college community?

To see where research fits, we need to first look at the history of the college system. Community colleges were established in Ontario in 1967 with a mandate for teaching and learning. Evolving from trade and vocational schools, the mandate took the form of applied teaching and learning. While the theoretical basis was part of program curricula, the tactile applied nature that appealed to the needs of the students was the focus. Students were being trained to become competent in specialized skills, often with a technology affinity. As the college system grew, the diversity of programs expanded to include all areas of study including disciplines such as health and human services, nursing, business, and information technology.



In the early 1980s, co-operative (co-op) and experiential learning were introduced as a response to both industry and community demand for employees, as well as to enhance the educational experience. Co-op and experiential learning provided students with opportunities to alter academic terms with work terms, and apply their learning to workplace situations. Employers now became an integral part of students' learning experiences. This was a

cultural shift for the colleges that proved to be successful. Co-op education and experiential learning now are core to many programs and have become a deciding factor when students are selecting a program of study.

Applied research and innovation is the next cultural shift in terms of the educational experience. Both industry and government have recognized that the colleges are the ideal institutions to conduct applied research as a means to move toward a more innovative workforce. Applied research seeks to solve immediate problems in short time lines. It is more about using existing knowledge and process to solve problems in innovative ways than developing new theories. The more theoretical and academic research remains the domain of universities. The best of both worlds would have colleges and universities working collaboratively on research projects from different perspectives.

At the college level, any research activity must be tied directly to program curriculum and involve as many students as possible. As with the introduction of co-op and experiential learning, applied research and innovation is designed to enhance the teaching and learning experience. As shown in the accompanying figure, cooperative education and experiential learning, along with applied research, and innovation have expanded the core mission of the colleges. Students involved with research enter the workplace with greater problem solving abilities and project management skills. Industries can take advantage of the expertise and facilities at colleges to have their research questions answered or problems solved.

The introduction of research at the college level is still relatively new, at a mere ten years. There have been many successes, some failures, and plenty of growing pains experienced as the colleges venture into brand new territory.

I am confident that this cultural shift, as with co-operative education and experiential learning will prove to be hugely successful. Applied research will become an embedded activity in many programs and will become a deciding factor when students are selecting a program of study.

Dan Douglas is the Acting Dean, Applied Research and Innovation. An architectural technologist and a graduate of both Fanshawe College and The University of Western Ontario, he has served in a variety of capacities at Fanshawe including co-op consultant, professor, program coordinator, School Chair, and Acting Dean, Faculty of Technology. He has special interests in historical buildings and sustainable building practices, and has been instrumental in advancing sustainable initiatives at Fanshawe in both curriculum and practices.

“PLEASE SIR, WE WANT SOME MORE”

Colleges, being new to research, find themselves the Oliver Twist of the research community when it comes to the allocation of federal research dollars in Canada. The Association of Canadian Community Colleges (ACCC) is determined to change that.

The federal government currently allocates \$2.9 billion a year in research funding to the higher education sector – i.e., colleges, universities, hospitals and research institutes. Of that amount, the federal allocation for colleges accounts for only 1.25 of that annual funding. In its latest advocacy to the federal government, ACCC has asked that 5% of federal investment in research and development be allocated to applied research partnerships between colleges and small and medium-sized enterprises (SMEs).



However, the costs involved in hiring outside R&D expertise can be prohibitive to many small firms. That’s where colleges can help.

Partnering with colleges and tapping into available federal and provincial research programs can provide the funding and expertise SMEs need to develop new or improved products, processes or services at a reasonable cost. Companies benefit by having the work done for less money, contributing to the training of their future employees (students), and stand to benefit further from increased sales, greater competitiveness and access to new markets and customers. For colleges, the benefits are multifaceted: real-world innovation experience for students and more highly skilled graduates; professional development opportunities for faculty and staff; closer ties with business and industry; and an influx of new information, insights and ideas that can refresh and revitalize curriculum.

This new role for colleges has elicited skepticism in some quarters, and Canadian colleges are well aware they must prove themselves before they can expect more funding opportunities. To support advocacy efforts, college research groups at both federal and provincial levels collect metrics to measure their progress.

So, how are we doing? A look at some of the ACCC data for 2010/11 tells the story.

- 13,585 students participated in applied research at Canadian colleges in 2010/11, a 63% increase from the previous year;
- 1,606 faculty and staff were engaged in applied research in that period, up 34% from 2009/10;
- 4,380 companies partnered with colleges on applied research projects, a 15% increase over 2009/10;

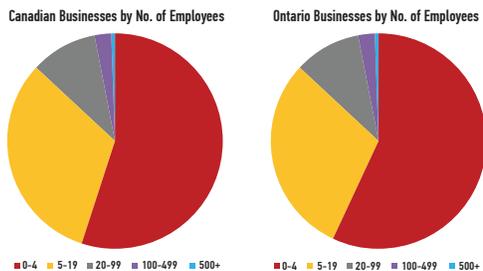
- 83% of the companies were SMEs, 14% were large companies and 3% were micro-enterprises;
- There were 289 college research partnerships in social innovation;
- Canadian colleges had 305 specialized research centres and labs in 2010/11, up 56% from 2009/10;
- Investments in applied research from colleges themselves, the private sector, federal and provincial funders, foundations and community and international partners totaled \$153.7 million in 2010/11, an increase of more than 10% over the previous year;
- In all, colleges conducted applied research in 447 areas of specialization, including natural resources, energy, the environment, health, IT and communications, manufacturing and social innovation.

Clearly, Canadian colleges are responding to the needs of businesses, industries and communities. And with the increased government funding focus on economic development and job creation, colleges are well-positioned to play an even greater role in research and development in this country. We still have some way to go to convince our critics that colleges can produce results. The proof will come in the form of increased innovation activity at colleges, satisfied clients and tangible results, more highly skilled graduates, a measurable impact on communities and regions, and our ability to tell our success stories well.

Armed with that evidence, we can truly say “please, sir, we want some more.”

Leslie McIntosh is the editor of researchfanshawe and Senior Project Developer in Applied Research and Innovation.

Why Target SMEs?



Canada: 98% of all private sector businesses are SMEs*
 Ontario: 99.7% of all private sector employer businesses are SMEs**

Sources: *Statistics Canada (July 2010). **Ontario Ministry of Economic Development & Trade (May 2010)

Why SMEs? According to government statistics, 98% of all registered Canadian private sector employer businesses are SMES, and that figure is even higher in Ontario, at 99.7%. SMEs are defined as private sector companies with fewer than 500 employees. Those are the businesses more likely to seek outside R&D help since many do not retain full-time research staff.

researchfanshawe

research fanshawe magazine is published by Applied Research and Innovation, Fanshawe College. It is distributed free of charge and is available on the Research Fanshawe website at www.fanshawec.ca/services/research/ research-fanshawe-magazine

Managing Editor: Dan Douglas, Acting Dean, Applied Research and Innovation

Editor: S. Leslie McIntosh

Graphic Design/Layout:
 Carve design + communications

Cover illustration by John Bennett, from original photographs by David Kolodjij.

Photos by John Sing, Agata Lesnik and Robert Haaf.

Contributors: John Bennett, Ramon Delgado, Dan Douglas, Eleanor Fullick, Simone Graham, Robert Haaf, John Huff, Gary Lima, and Dana Morningstar.

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Feedback and story ideas are welcome. Send correspondence to the Editor, research fanshawe magazine by email at research@fanshawec.ca or by snail mail to:

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Applied Research at Fanshawe College

Interested in applied research and innovation?

We're your first point of contact. Applied Research and Innovation (ARI) is Fanshawe College's Research Office and Industry Innovation Centre (IIC). ARI works with industry and community partners and with Fanshawe researchers to develop innovative research projects and programs, and serves as the College's link to external funders.

What we do

- Find research funding opportunities
- Assist with project development, proposals and budgets, and post-award implementation
- Work with business and industry on applied research, prototyping and problem solving
- Administer Fanshawe's internal research seed fund (Research Innovation Fund)
- Provide research-related information, education, ethics and research skills development
- Promote, advocate and celebrate Fanshawe's research accomplishments

It's not just about commercialization

Some projects do focus on development, or improvement of, products, services or processes. ARI also supports applications in the fields of the arts, humanities, social sciences, media and health. In fact, many Fanshawe research projects focus on social innovation, postsecondary student success, vulnerable populations, sustainability and healthy communities.

Have a project idea or just want to learn more?

Contact us at research@fanshawec.ca or (519) 452-4430, x 4734. We're in T3010, London Campus.

**Fanshawe Innovation:
We're putting knowledge to work!**

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