SFU expands its Vancouver presence

New home for Contemporary Arts at Woodward’s

At 120,000 square feet, SFU’s School for the Contemporary Arts at Woodward’s will be the largest multidisciplinary arts campus of its kind in Canada. Funding for the School came from many sources, including the provincial and federal governments and private donations from the Rix family, Audain Foundation, Fei and Milton Wong, Samuel Belzberg and Djavad Mowafaghian. New state-of-the-art equipment provided by a million dollar Western Economic Diversification (WD) grant will allow SFU Contemporary Arts faculty and students to combine dance, theatre, film, and new media in totally new ways. The idea is to provide workshops for the professional community as well as partnerships with local cultural groups to train a new generation of artists.

With as many as seven new public theatres, the facility occupies the first floors of the vibrant new Woodward’s building being completed in the heart of Vancouver’s Downtown Eastside (DTES). Martin Gotfrit, Director of the School, points to the huge wealth of talent, skill and diversity in that neighbourhood. “The WD funding will provide people with really tangible tools to either develop their own enterprise or do it for other people. And it’s knowledge-based stuff. It’s new media, it’s videography. It’s things that fit very well in the 21st century, where a little bit of technology can help someone go a long way,” he says.

As an example, Gotfrit points to SFU at Woodward’s partnership with W2, a grassroots community media arts centre that will also be located in the Woodward’s complex. Their Fearless City Mobile project is typical of the work they do. They put smart phones into the hands of the underemployed marginalized citizens of the DTES and push the resulting video, images and sound onto interactive live screens in public spaces, projecting it on buildings, or loading it onto websites such as Google Maps. W2 Executive Director Irwin Oostindie says, “WD investment is an example where W2 and SFU work together for the benefit of the Downtown Eastside as well as pushing SFU at Woodward’s as a cultural hub for the city.”

April Smith, a participant, said in a blog posting last year, “I came into the Fearless City Mobile Project as an underemployed, underdocumented woman with a transient past... I was very much in the position of possibly falling through the cracks. I was trying to leave an abusive stalker...a violent and abusive man. He terrorized my life day and night. Through Fearless City helping me in understanding mobile technology with livestreaming and text messaging applications... I was able to see that he was properly dealt with by law enforcement... He is now imprisoned.” Even more impressive is the way Smith has partnered with others from her community to create Aha Media (ahamedia.ca), a group of independent mobile social media reporters for hire. Their website advertises services such as livestreaming of events, hyperlocal citizen journalism and starter new-media websites.

Gotfrit stresses the power of the new technologies to release creative energies, saying, “We used to call them phones, but they are really new little portable multimedia platforms with camcorders and Internet connections. They are politically charged and transformative. Part of what we’re going to be doing in the new art school is to help people realize that.” Gotfrit says the social, political and artistic implications are intense. “Just look at YouTube,” he says. “It doesn’t take much. Just one little idea can grab five million people watching.”

One of the first projects completed was “Media Youth Tomorrow”, a two-week workshop organized by KickStart (formerly the Society for Disability Arts and... Continued on p. 2
Message from the Vice-President, Research

In this issue, we highlight some of the exciting research at SFU, from the next generation West House that will be toured by hundreds of thousands of people at the 2010 Winter Olympics, to the Langley teachers who are seeing amazing results from an innovative approach to education, to an exhibition and symposium focusing on the representation of Aboriginal women in art. As in previous issues, we also report on our researchers whose excellence has been recognized with prestigious external awards, and we proudly profile one of SFU’s own who is listed among the top ten authors in the world in his field. This is only a tiny sampling of the multiple ways in which the outputs of SFU research are having an impact in both academic and non-academic communities.

Since last September, with the assistance of many SFU community members we have been optimizing our Strategic Research Plan (SRP) to guide us through the next five years. We invited the entire SFU community to provide suggestions on the SRP through Faculty Deans, open fora at all three campuses, and email. The SRP draft became a living document on our website, continually adapting as new suggestions were incorporated. The resulting document will be posted for a third round of consultation before it is submitted to the University administration for review and approval.

I feel that the 2010-2015 SRP is an inclusive plan that provides a greater focus to our common research themes. As a result of input from our community, two new research themes have been added, Origins and Pedagogy, as well as several new sub-themes. We have also incorporated a recognition of the importance of fundamental, discovery research and of research in the humanities and social sciences. In addition, we have highlighted the critical need to provide both undergraduate and graduate students with opportunities to engage in research activities to enrich their university experience and to develop important research skills. Finally, we have crafted new plans to better assess the impact of the SRP in achieving our goals.

Woodward’s continued from p. 1

Culture). Participants with varying levels of disability were paired with professional editors. They used computers, cameras, and audio recorders on loan from SFU at Woodward’s to create multimedia works that gave intimate glimpses into the unique personalities behind each disability. “The program had a very high staff-participant ratio and with all that excellent equipment, all participants, even those with multiple layers of disability, were able to express themselves through incredibly creative videos,” says Rina Fraticelli, Executive Director of KickStart.

Irwin Oostindie is careful not to position such projects as charitable initiatives. For him it is community television and radio, Web 2.0, youth and media arts apprenticeships, and digital storytelling, not charity. In November the Barcelona-based net artist Antoni Abad was artist-in-residence, bringing his megafone.net project to Vancouver as part of the Blade Runner program for Aboriginal youth. The project invites people on the fringe of society to express their experiences and opinions through face-to-face meetings and mobile phones. Sounds and images are immediately published to the web, making the phones into digital megaphones that amplify voices that are often overlooked or misrepresented in mainstream media. “W2 artists are working with SFU communication professors Alison Beale and Catherine Murray and their students in a meaningful, genuine academic collaboration,” says Gotfrit.

He adds, “People learn to express themselves with these relatively simple digital media tools, but they act as stepping stones to more online media projects.” Often the newly acquired skills lead to self-employment or jobs in new-media companies that they otherwise would not get. Vancouver’s Yaletown and Gastown, just blocks from the Woodward’s site, are home to countless animation and digital communications companies including the media giants Pixar Animation and Rainmaker Entertainment.

Some of the WD funding will go toward the purchase of special data projection lighting and new Light Emitting Diode (LED) lights. LEDs require little power yet they are very bright. They respond immediately to computer control and work with batteries, something that is impossible for conventional stage lighting, and are completely portable. “They also create cool colours,” adds Gotfrit, noting that the lights will be used by an SFU graduate student in a piece that involves Internet control of an orchestra through light cues by composers in New York. A major use of the new data projection lights is to put images such as clouds or stormy skies onto theatre backdrops. Gotfrit says, “If you have a white cup on stage, you can wrap an image around it using these lights. You can project snow or any moving images onto the stage."

The largest of the many theatres in the new art school is the Fei and Milton Wong Experimental Theatre. It features two large highly accessible gantries above the audience that are safe even for technicians in wheelchairs. Robert Lepage’s dramatic extravaganza, Blue Dragon, is the inaugural work that will launch SFU at Woodward’s during the Olympic games in February 2010.

Usually WD funding supports science- and technology-based ventures. But SFU Vice-President, Research Mario Pinto felt that by directing WD funding to the arts, by investing in technology for cultural programs, societal benefits and economic development would follow. “I’m overjoyed that WD saw the wisdom of this investment and that they took the risk, which is much appreciated. There is a linkage between arts and culture and economic development. The technology is just a conduit. The fundamental driving force is artistic expression,” says Pinto.
Images of Native Women
The Academy can now embrace indigenous content

When Dana Claxton, SFU’s Ruth Wynn Woodward Chair in Women’s Studies, pictures a First Nations woman she thinks of Buffalo Woman or Wendy Grant-John. Grant-John was a longtime chief of the prosperous Musqueam band and White Buffalo Woman was a prophet who gave the Seven Sacred Rites to the Lakota people, the spiritual underpinnings of their nation. Claxton herself is of Lakota Sioux descent. She is an interdisciplinary artist whose work includes film and video, installation, performance and photography. She’s organizing a Performance and Dialogue Event called “Unpacking the Indigenous Female Body”, which will take place at The Western Front and SFU Vancouver on April 23 & 24.

“I’m into the body at the moment, in terms of my research and artistic production,” says Claxton. “It interests me as a site for narrative memory, how a society shows the body.” Her most recent show was called “The Barbarian”, a photographic series depicting a life-size naked man holding a giant narwhal tusk. Esther Harrison, Women’s Studies Assistant to the Ruth Wynn Woodward Chair says of the show, “It was amazing. I went up to the picture and stretched the palm of my hand out toward the tusk. When it was about three inches away I felt something—a pressure energy. I tried it on the man but it wasn’t there. The energy was only coming from the tusk,” says Harrison.

Claxton has recently been inspired by the 1970s movie trilogy A Man Called Horse, specifically the film’s representation of Lakota women, spirituality and culture. “The post colonial representation of First Nations women in film is uncharted research territory,” says Claxton. Very little has been done on Lakota Women in film, in particular.

The poster for the April event is a photograph called The lonely surfer squaw, a picture of the Saskatchewan native artist Lori Blondeau standing in the snow by the North Saskatchewan river, in a bikini and snow boots and holding a huge surfboard. “It’s a great image of an Indian woman,” says Claxton who is perfectly comfortable saying ‘Indian.’ “If you think of the body as a memorial, as a site of memory, our bodies as indigenous women have been greatly harmed, but also celebrated,” she says. “I want to celebrate the Indian body.” The event at the Western Front will feature two performance art works that respond to A Man Called Horse, one by Blondeau and the other by Skeena Reece. On Saturday a symposium on “Images of Indigenous Women” will be held at Harbour Centre featuring a keynote by Hulleah J. Tsinhnahjinnie.

Claxton is delighted that SFU has a new office of First Nations and she hopes that some day indigenous content will be inserted into all disciplines at SFU. “Even science could be made more interesting,” she claims. According to Claxton, the Academy has contributed to the structural dehumanization of native people, but now our public institutions have the great potential to realize the contribution that indigenous knowledge can make to humanity.

She points out that when Europeans arrived in North America they encountered many sophisticated societies, civilizations that had lasted thousands of years. “These have not been respected, recognized or accepted,” says Claxton. “What’s more civilized: polluting a river in a few decades, or living in harmony with it for 10,000 years?” she asks. She believes that the university is a great place for post-colonial studies that examine what indigenous knowledge can add to all the disciplines. “The goal is to bring forth more wisdom and goodness, to enhance the great work that is already going on in the university,” she says. More: www.sfu.ca/gsws/RuthWynnWoodwardProfessorship.

Recent award winners
Congratulations to these SFU researchers and student entrepreneur:

- Fiona Brinkman, Molecular Biology and Biochemistry, Canada’s Most Powerful Women Top 100 Awards
- Charmaine Dean, Statistics and Actuarial Science, American Association for the Advancement of Science Fellowship
- Mark Jaccard, Resource and Environmental Management, Royal Society of Canada Fellowship
- Lungpacer Medical, Inc. (Andy Hoffer, Biomedical Physiology and Kinesiology), BC Innovation Council Emerging Technology Award and New Ventures BC 3rd Place Prize
- Roy Miki, English (emeritus), Order of British Columbia
- Arthur Robson, Economics, Royal Society of Canada Fellowship
- Rick Routledge, Statistics, Statistical Society of Canada Award for Impact of Applied and Collaborative Work
- Team North (SFU advisor Rob Woodbury, Interactive Arts & Technology) - Solar Decathlon, 4th place finish
- Milun Tesovic, student, Business, Global Student Entrepreneur Awards
- Zuo-Guang Ye, Chemistry & Yuezhi Zhao, Communication, Chang-Jiang Scholar Award, Ministry of Education, China
Kieran Egan’s latest book, *The Future of Education* (Yale U. Press, 2008), presents a series of ideas describing how school could be different in each of the coming five decades if his Learning in Depth (LiD) vision is implemented. Pretending to write from the distant future looking back, Egan imagines that first grade begins with a highly anticipated ceremony where children are randomly assigned a single topic to explore, such as apples, tools, bees, electricity, clocks, or money, and given a portfolio that they will fill with information. Students will continue to pursue their topic alongside the regular curriculum for the next 12 years.

“Most people’s initial response is that the kids will get bored,” says Egan with a quiet ironic laugh, “but boredom is a product of ignorance: not knowing things. The more you know about something, the less you find it boring.” Egan strongly believes that LiD will result in the development of genuine expertise and a passion for learning, rather than a superficial “utilitarian” knowledge of many things, as he feels is currently the norm.

The LiD idea has spread through talks given by Egan, and by word of mouth. Teachers aren’t waiting for 2060: LiD programs have already sprung up in about 30 schools worldwide, locally in Langley and Victoria, but also in England, Australia, Singapore, Japan and the USA. Egan has set up a website with useful resources so educators can get started: www.ierg.net/LiD/.

Langley teacher Linda Holmes is one of the first to try it. She began LiD in September of 2008 with a mixed class of grades 1, 2 & 3. To get program approval, Holmes had to prepare a proposal for her principal and the school librarian. Then she sent a letter home to obtain parental consent. “At first it was quite rocky, because children did not know where to begin,” she says. So she created worksheets to help students take their first exploratory steps. Students are not graded for LiD, and there is no coercion of any kind. Holmes says, “The non-assessment part of it is huge for students because there’s no outward expectations. It’s totally internally driven. Their curiosity is the only thing that drives them.”

While students are randomly assigned topics, the determination of possible topics is far from random. A growing list is maintained at the LiD website, where topics must satisfy the following criteria: sufficient width, sufficient depth, sufficient connections with the self (cultural ties and imaginative and emotional ties), not too technically constraining nor too general (e.g., animals are too general and tigers too particular, but cats are just right), and not concerned with depressing or degrading material (e.g., “weapons”). The array of topics must provide an equivalently rich experience for all students, and there must be sufficient local resources for students to access the topic adequately in the first years. Finally, topics must be easy enough for a five-year-old to access, yet have sufficient richness and diversity to engage children for twelve years as their interests change.

Around the world where LiD is being used, people are amazed by the commitment that students develop. When Linda Holmes returned to her classroom in September 2009, she was surprised that some students had worked on their projects over the summer, and were even more excited the second year. She had never experienced children aged five to eight talking with such enthusiasm and maturity about knowledge. Within a year, they’d realized their topic was a lot bigger than they had first thought. “They start isolating parts, and they don’t see an end, and it continues on and on,” says Holmes. “The whole process has brought the study of knowledge into my classroom, instead of just facts. We’re having more interesting discussions and a lot more fun studying the world around us.” Another teacher at Holmes’ school is now trying LiD in grades six and seven. She is finding that at that age students are even more excited. An unexpected bonus is parent engagement when children enlist mom and dad’s help.

Egan believes that to have knowledge of something in depth fires the imagination. “Imagination is one of the great workhorses of learning and it only works with what we know.” The more we know, the more we can imagine. According to Egan, students who learn superficially are not good at distinguishing a factual claim from an opinion. “You learn how to do this only if you know something in great detail, because you end up learning something about knowledge itself,” says Egan. Even at the age of five or six, children can begin wondering about the nature of knowledge, which leads them paradoxically to realize just how little they actually know. It teaches humility. “Learning in Depth provides a dimension of education that our schools currently neglect,” says Egan.

Egan has a two-year SSHRC grant together with fellow education professor Allan MacKinnon to study both students’ and teachers’ reactions to LiD. They have also applied for a larger SSHRC grant and, with US colleagues, are submitting another to the US Office of Education to fund much larger studies.

For Egan, LiD is a Trojan horse. “Those that try it and love it become open to our other ideas of Imaginative Education and large scale change in how they teach,” he says. These include ideas of engaging the emotions and imaginations of students, and the use of potent emotionally charged images. According to Egan, depth of knowledge overshadows utilitarian learning and encourages a sense of wonder. He says, “All knowledge is a product of hopes, fears and passions, and teachers need to show it in that context to give it living meaning today.”

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Cultivating Wonder

Children and teachers both excited by new teaching model

Professor Kieran Egan, Faculty of Education

A student in Langley, BC works on his Learning in Depth portfolio.
West House
A solar laneway house showcases SFU technology

About 200,000 people will tour SFU West House, a model sustainable home of the future on display at the Vancouver Winter Olympics in February 2010. Completely designed and built in Vancouver, this modern laneway house showcases the world BC's capabilities in market-ready green housing. Most of the materials and technologies are made or designed in BC, such as millwork, plumbing fittings, solar roof tiles, and especially the innovative energy control and display system created by SFU researchers. In fact, the whole project was the inspiration of two professors in the SFU School of Interactive Arts and Technology in Surrey, BC: Lyn Bartram and Rob Woodbury.

The house will be located on Pacific Boulevard next to Vancouver House in Yaletown as part of Live City Vancouver. It will be open to the public from Feb 11 - 28. Admission is free.

The project began a couple of years ago when Bartram and Woodbury joined forces with colleagues at the University of Waterloo and Ryerson University to create North House, an entry for the U.S. Department of Energy's Solar Decathlon. The public event is an international competition where 20 university teams from around the world compete to design, build, and operate the most attractive, effective, and energy-efficient solar-powered house. Our Canadian entry did surprisingly well, winning 4th place last October. Plans were in progress to bring North House to Vancouver for the 2010 Winter Olympics, but the million-dollar showcase home proved too expensive to move, set up, and return to Ontario. Bartram then had the brainwave to call the City of Vancouver's sustainable development program manager, David Ramslie. "As a Vancouver homeowner and the owner of a solar-powered cabin on Gambier Island I've been following the city's sustainability initiatives closely, so I thought they could help," she says.

Ramslie was happy to get the call. "To have a real tangible example of a next generation home is not only necessary as regulators but also for the public to see and learn more about it. Very quickly we are going to have to re-imagine how we build single family homes in Vancouver," he says. But instead of helping to bring North House to Vancouver, Ramslie wanted to build a new one. "Why don't we make our own, and have an asset right here in Vancouver that can serve for research and be a model for the future?" he said to Bartram, who loved the idea.

Smallworks was contracted to build the house, based on their previous experience developing the beautiful pre-fab laneway house that was a hit at the 2009 BC Home and Garden show. The house would be fitted with a host of renewable technologies, including solar and electrical systems from MSR, Day4 Energy, and Xantrex in Burnaby, energy management software from Pulse Energy in Vancouver, and computer control systems from Embedded Automation in Surrey. SFU would contribute the intelligent data interface and display panels. The house can share electricity with the grid by running the electric meter backwards on sunny days. It will also have a solar thermal array to heat hot water. "We've taken that home and said, 'How green can we make this?'' says Ramslie. "The Smallworks design already provides an excellent continuous thermal envelope with an effective R value of R26, which exceeds our building code of R20."

There's much more to West House than technology. "To date, green building has been about 'let's design it and once it's finished we put a plaque on it.' But we don't really know if that building performs as a green building, because the people that move in might have bad habits and not lead a conservation-based lifestyle," says Ramslie.

That's where SFU research comes in. According to Bartram, good home energy control interfaces do not exist. "They all look like airplane cockpits," she says, and they don't encourage conservation. "I don't want to know about volts, watts and amp hours. I want to know if I can run the vacuum cleaner." The SFU system makes it simple. Bartram realizes that many people may not want an engineering display in their living room. Instead, the detailed control display is at the entryway, while a gorgeous kitchen backsplash glows subtly in different shades of colour to show how much energy is being saved. A smart-phone app allows remote changes to settings with a few finger taps.

It's called ALIS, for Adaptive Living Interface System, and it encourages people to change their lifestyle to reduce consumption, something that is not happening in very many other places in the world. Occupants have one

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Top Ranking Author
Data mining expert’s paper fourth most cited in field

SFU’s own Jian Pei, Associate Professor of Computing Science, is the eighth top-ranked author in the world in the field of data mining and the only Canadian to appear among the top ten, according to Microsoft Research. His co-authored paper Mining frequent patterns without candidate generation published in SIGMOD 2000 is the fourth top-ranked paper in this field. In Pei’s other major fields of research, databases and information retrieval, he is ranked #138 and #598 respectively. The rankings are based on citation analyses of over three million publications in the computer science domain that are contained in the Microsoft Academic Search free online database (academic.research.microsoft.com).

Pei developed the pattern-growth approaches for mining frequent patterns on large databases, which can be used in, for example, finding what products are often purchased together by customers and what is likely the next search query that a user may ask. His approaches have been recognized as breakthroughs in the field: they are orders of magnitudes faster than the previous methods, and can find new kinds of patterns effectively. His inventions have found many applications such as business intelligence, bioinformatics and Web search. Currently, he is closely working with industry researchers and developers such as those in Microsoft, SAP, and CiteSeerX to apply his latest research results to solve real world problems.

This is quite an amazing achievement, as Pei only received his PhD (from SFU) in 2002. Since 2000, he has published one monograph and over 140 research papers, participated on the program or organization committees of over 130 international conferences and workshops, and served as an associate editor for the top journals in the field. He was awarded the Young Innovator Award in 2005 by the BC Innovation Council, and in 2008 he received one of only 10 NSERC Discovery Accelerator Supplements in computing science. He is also a recipient of a 2006 IBM faculty award, a most influential paper award, and two best paper awards.

West House continued from p. 5

One of the most amazing aspects of West House is how so many partners came together to bring the project to fruition. The idea to build it locally was hatched in November 2009, and the house is in place for the 2010 Olympics in February. “Very rarely do you see this kind of partnership form so fast where you have an academic research program partnering actively with local industry, testing new and current market technologies, while local government policy, planning and executive personnel support the adoption and application of the technologies. It’s the vanguard. Not a lot of other places are doing this,” says Ramslie.

SFU V.P., Research Mario Pinto adds, “This has been one of the most enjoyable projects that I have worked on. I am very grateful to WD who have been extraordinarily supportive of SFU initiatives over the past few years.” Pinto helped facilitate WD funding of $347,000 for house construction and relocation. Senior management at the City of Vancouver were extremely cooperative on the project, providing the land for the display site as well as a permanent location in East Vancouver when the Olympics are over. It will be near a community garden close to a bike path. The site will showcase not only the building, but also many other holistic practices in sustainable living, including backyard chicken coops, composting, home gardens and more. SFU researchers will continue to have access to the house as a living laboratory to refine home energy conservation control systems, and in particular to study how those systems can make it easy for people to conserve energy.

“It’s locally designed, but we are thinking globally,” says Bartram. “We have something to export to the world here.” More: hcssl.iat.sfu.ca
New Open Access Fund
SFU authors are encouraged to publish in open journals

Last year, more than one third of the SFU Library’s collections budget—$4 million—was spent on the renewal of e-journal subscriptions. Of that, over half went to just four commercial publishers. “Each year it costs more, leaving less and less money to purchase monographs and smaller independent journals,” says Gwen Bird, Associate University Librarian, Collections. “These large companies post very large profits on their balance sheets every year, while the University finds itself in an environment of ever tighter budgets. The current situation is unsustainable.” Since one of the central goals of the Library is to provide access to scholarly literature, SFU continues to renew the large publisher packages, but carefully tracks usage to ensure those high-priced journals are still in demand. “At the same time, we recognize that reform of scholarly publishing is imperative,” says Bird. Nevertheless, it is the prerogative of faculty and Senate to mandate any open access publishing requirement.

At its January 2010 meeting, the Senate Library Committee adopted sweeping recommendations that will make SFU one of only three Canadian universities to embrace Open Access (OA) publishing. “We’re going to put our money where our mouth is,” says Bird. OA Journals are scholarly peer-reviewed journals freely available on the web without subscription fees, but they are often supported through Article Processing Charges (APCs) levied to authors. Fees range from a few hundred to several thousand dollars per accepted paper. Prominent examples are BioMed Central, Public Library of Science, and Hindawi.

Beginning in February 2010, SFU is creating an OA Central Fund to encourage SFU authors to publish in OA Journals. The fund will pay the APs for SFU authors who lack other sources to cover these fees. It’s all part of the Library’s new Open Access Strategy, which includes:

- Continuing support for the Public Knowledge Project and its open source software to improve management and to decrease publishing costs,
- Further development of SFU’s Institutional Repository where authors can share research output, including reports and raw data,
- Making OA journals more accessible to SFU readers. “With the establishment of the Open Access Fund we join a growing movement worldwide,” says Bird. Hal Weinberg, Director of SFU’s Office of Research Ethics, adds, “The new look in academia is free public access to all data collected with public money. Research data should be available to the public so that there can be expansion of knowledge related to that data.” The SFU Library maintains a public repository where researchers can put their data to fulfill new public access requirements of granting agencies.

For more information about Open Access initiatives at the SFU Library, including the OA Central Fund, contact Gwen Bird, gbird@sfu.ca. The Library’s full OA Strategy document is available on the web: tinyurl.com/yf2h4aa

Data Liberation
SFU researchers get easier access to online data sources

In 2001, after a five-year trial, Statistics Canada officially started a project called the Data Liberation Initiative (DLI), involving the major Canadian universities through the Canadian Association of Research Libraries. The idea was to lower the price and ease of access to Canadian microdata files, databases and geographic files. Prior to DLI, Canadian universities had to purchase Statistics Canada data file by file: the universities now pay an annual subscription fee for unlimited access to these resources.

SFU Librarian for Research Data Services, Walter Piovesan, has been working on the Data Liberation Initiative since day one. He has helped the four major BC university libraries (SFU, UBC, UNBC, and UVic) organize a province-wide web-based service for accessing data files and documentation, called ABACUS. The software was developed by and is hosted at UBC library data services.

ABACUS provides two primary means of finding and accessing data files: through direct data downloading, and through the NESSTAR (Networked Social Science Tools and Resources) server. NESSTAR will support basic tabulation and analysis online, and the downloading of datasets for use with other statistical analysis tools.

ABACUS can now be assessed through the SFU library website: www.lib.sfu.ca/research-data-library/get-data

DLI has “liberated” social science survey data, such as the census and the omnibus survey from Statistics Canada and SLID (Survey of Labour Income Dynamics). The new interface allows users to effortlessly search and browse datasets including DMTI Spatial, Ortho Photos and Canadian Business Patterns. “Professors and researchers are used to getting data in an old fashioned way via WebDAV, which has a poor interface,” says Piovesan. With ABACUS, researchers can search and browse all the available datasets with nothing more than a web browser. All that is required is a login using their university IDs.

DLI will make important contributions to Canadian teaching and research, as researchers can now supplement public opinion polls with Statistics Canada microdata. ■
UILO News

A fter 44 years at SFU, Jean Trask, Associate Director of the University/Industry Liaison Office (UILO) has retired. Trask was here before day one, as a cashier at SFU’s first registration, which happened at an office in downtown Vancouver. After that, she took a few years off, but credits John Webster for recalling her to SFU on a temporary basis; Tom Calvert for making her a permanent employee again; and Mike Volker, Bruce Clayman and Mario Pinto for the creative freedom she enjoyed at the UILO. “Thanks to an awesome group of professional colleagues, too,” adds Trask.

Volker wins award

UILO Director Mike Volker was named 2009 Canadian Angel of the Year by the National Angel Capital Organization at its annual summit in Toronto. Volker is President and Founder of the Western Universities Technology Innovation Fund (WUTIF Capital), and Manager of the Vancouver Technology Angel Network (VANTEC).

New model for technology transfer

A previous matching of Entrepreneur-in-Residence (EIR) Doug Blakeway to SFU researcher Bozena Kaminska has led to a technology license from SFU to a newly formed company, iDme, which in turn will be receiving angel investment from Mr. Blakeway and a syndicate of investors that he represents.

Kaminska’s technology involves a teflon-like polymer film called nafion, which generates a small electrical current when flexed. That charge is stored in another tiny piece of nafion functioning as an ultra-thin capacitor. All this is fabricated on a film only a few square centimeters in size and no thicker than a human hair. The stored electricity powers organic light emitting diodes embedded in the film, which illuminate an array of nanoscale holes printed in a special pattern. The pattern and size of the nano holes creates a coloured image by diffraction of the emitted light.

All the technologies have been demonstrated individually, and it only remains to bring them together in a microscopically thin film embedded in a sheet of paper. Leading applications include bank-notes and passports with self-powered and self-lighting security and ID features that cannot be counterfeited. Many other uses can easily be imagined, for instance, product validation tags such as “Intel Inside.”

SFU technology wins two awards

A pairing of EIRs Phil Holland and Bill Barrable has resulted in a third place finish in the 2009 New Ventures BC Competition by SFU spin-off company Lungpacer Medical Inc., led by biomedical physiologist Dr. Andy Hoffer. The $37,000 prize and the enhanced investor profile it brings with it will assist Lungpacer in its next stage of growth. Dr. Hoffer’s technology also received the BC Innovation Council Emerging Technology Award, including a cash prize of $25,000.

Hoffer’s technology addresses five significant issues associated with the mechanical ventilation of critically ill patients. Intravenously placed Lungpacer electrodes rhythmically activate the nerve leading to the diaphragm. Pacing prevents diaphragm muscle-disuse atrophy, resulting in faster patient recovery, a shorter stay in intensive care, lower hospitalization costs and greater patient access to scarce mechanical ventilators during crises such as flu pandemics. Lungpacer Medical is Hoffer’s third SFU spin-off company.

Who’s New

Ian Hand is the new Associate Director of the UILO. Hand has a unique blend of experience as an entrepreneur, investor, director, consultant and advisor to technology-based businesses. As founder and principal of Northwest Strategies he provided technology management, business development, corporate financial, advisory and investment services to clients in Canada, the United States and internationally in the technology, communications, health, energy and industrial sector, as well as government and research sector clients. In the 1990s Ian pioneered the development of digital video-on-demand platforms for the cable television industry at Digital Interactive Video Access Corporation with SRI & Sarnoff. He was a partner at NS Telecom Group and Norstar Capital, private equity investment firms. He has offered courses in entrepreneurship in the Faculty of Business Administration.

Elizabeta Cubaleska, who began as UILO Technology Administrator in early 2008, has become a permanent employee of SFU.

Eunice Au-Yeung has moved from a split position to full-time employment in the UILO.