

BEYOND THE HEADLINES

BRINGING YOU INTO THE CONVERSATIONS



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every day, the thinking that happens at Concordia University makes a difference in someone's life. It may capture the imagination of students and set them on a path toward further study or a profession. It can inspire faculty and students in their chosen field of research, or propel a Concordian into community action to make a positive difference in the lives of others.

This thinking also translates into discussions and media stories that reach a wider audience, and can help bring together like-minded people who are seeking to advance knowledge or devise solutions to the challenges affecting our society.

That is why we have produced this publication, called Beyond the Headlines — our inaugural review of the people and the issues that made the headlines in 2010-11. You will meet six Concordians who are not only making headlines, but are influencing the way we think, the way we behave and the way we look at the world. By teaming them up with a thought-leader to discuss a common topic, we have created conversations that reflect creativity, innovation, achievement and leadership.

These conversations epitomize just the sort of exchanges we encourage at Concordia as one of the most dynamic and accessible universities in Canada. We are dedicated to the pursuit of academic excellence, an outstanding student experience and socially responsible engagement with the community.

In recent years, Concordia has invested significantly in renewing its faculty, improving its teaching resources and revitalizing its two campuses with projects that are models of sustainable urban development and sound fiscal management.

Through the dedication of our innovative researchers and outstanding students, and with the support of government and our friends in the community, the university's research profile continues to grow. This part of the Concordia story can be seen in the headlines our people are making in Canada and around the world, a small sampling of which is reproduced in this publication.

FROM MAKING THE NEWS TO INFLUENCING CHANGE



For more on Concordia and its people, I invite you to visit our website at **www.concordia.ca/now**, where you can view our "Newsmakers" section and sign up for the NOW e-newsletter to get timely news about the university delivered to your email inbox.

I wish you an agreeable and informative read and encourage you to join in the conversation with Concordia and the wider community.

Frederick Lowy

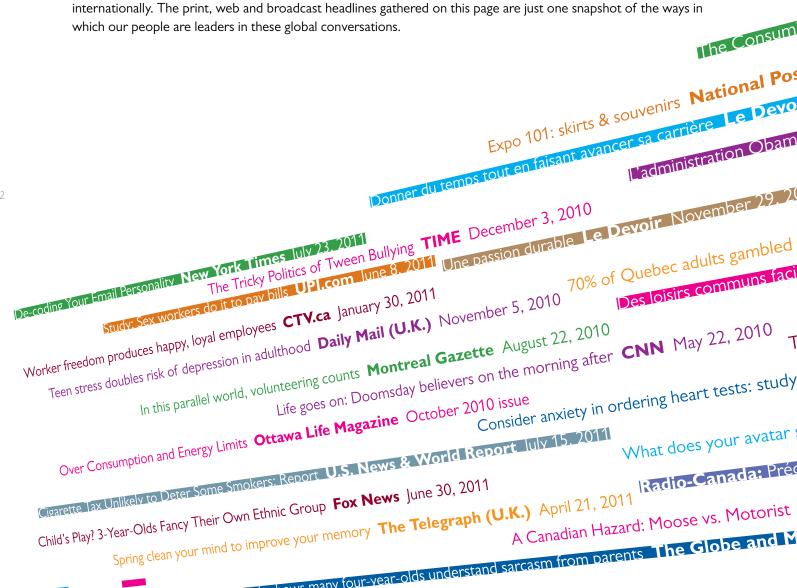
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President and Vice-Chancellor

CONCORDIA INFLUENCING THE WORLD

OUR PEOPLE MAKING HEADLINES AND LEADING THE CONVERSATIONS

Concordia's reputation for academic excellence and creativity continues to grow. This is evident in the headlines our researchers and experts are making across Canada and around the world for their contributions to the advancement of knowledge and the betterment of society. Media exposure of research at Concordia represented one-fifth of the university's presence in domestic media reports in 2010-11 and our research profile is rising internationally. The print, web and broadcast headlines gathered on this page are just one snapshot of the ways in which our people are leaders in these global conversations.



Study shows many four-year-olds understand sarcasm from parents The Globe and M

Radio-Canada: La musique apaise la douleur May 11, 2011 ne inct The Wall Street ourna une 21, 2011

a suit les conseils de chercheurs de Concordia la Presse September 14, 2010

Netherlands returns Brueghel painting to Canada AFP (France)

litent les relations entre générations Le Figaro (France) February 25. 2011

The Washington Post of the world's temperature

CBC.ca November 12, 2010

Comfortable clothes go comforting UP

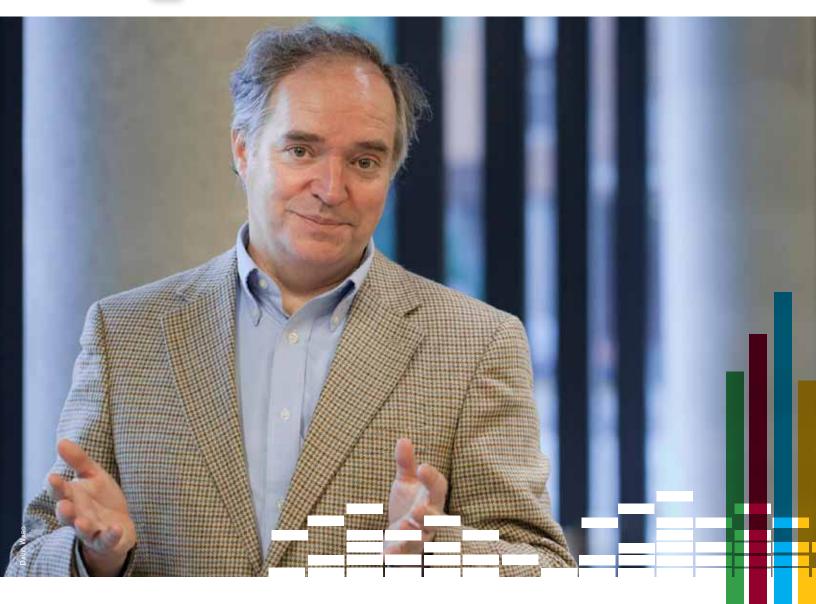
say about you? Discovery Channel July 29, 2010

dire avec plus de précision l'apparence future March 16, 2011

The Economist May 26, 2011

ail September 16, 2010

Concordia changes science learning Montreal Gazette August 6, 2011



"MULTIPLE FRIENDSHIPS SEEM
TO 'INOCULATE' AGAINST NEGATIVE OUTCOMES
SUCH AS BULLYING, EXCLUSION AND
OTHER KINDS OF AGGRESSION."

FRIENDS HAVE LASTING INFLUENCE

Concordia psychology professor and researcher William Bukowski has dedicated more than 30 years to teasing out the complexities of how we organize ourselves into groups as kids.

How we play and learn together in class. How we form alliances at camp and at the rink ... or just hanging out in the neighbourhood.

And, in a few cases, how we also exclude and marginalize each other.

In other words, Bukowski's seminal work describes the very foundations of what makes a human a social animal.

BULLIES GET ALL THE ATTENTION

"There is an imbalance of attention on negative classroom behaviours, such as aggression and exclusion ... a kind of popular hysteria about victimization that causes us to overlook the positive attributes of friendship," laments Bukowski.

His work provides much needed balance. It focuses not just on the negatives of being friendless but also on the lifelong benefits of having a rich social network.

Bukowski's research among school-age children in Colombia and Argentina yielded some provocative insights, including how our global consumer society unites privileged kids. This may contradict the seminal social anthropologist Clifford Geertz ... but Karl Marx would have understood that class trumps ethnicity.

WHAT FRIENDS ARE FOR

Over the course of his career, professor Bukowski, also director of Concordia's Centre for Research in Human Development, has attracted significant funds from leading grant agencies, including the Social Sciences and Humanities Research Council of Canada and the Fonds québécois de la recherche sur la société et la culture.

Among his key findings: kids with friends do better at school and have more successful lives later on than kids who don't connect with their peers.

Friends help us feel good about ourselves and our place in the world. But they also do more. Making and keeping friends teaches us how to get along, resolve issues and communicate within groups — invaluable lessons for later in life.

The reverse is also true, says
Bukowski. Difficulty making friends, or
social exclusion for a variety of reasons,
correlates with poor academic and job
performance, later mental illness and
other negative outcomes.

WILLIAM BUKOWSKI

A native of Buffalo, N.Y., William Bukowski obtained his PhD in Developmental Psychology with a minor in Clinical Psychology from Michigan State University. He has led international studies, co-authored dozens of academic articles and book chapters, and received external research grants.

An early stint with the Jesuit Volunteer Corps, for whom he taught grade school math on the St. Labre Indian School in Montana, continues to inform his work with social and academic sensitivity.

The Jesuit connection came full circle when Bukowski arrived in 1989 at Concordia's Loyola Campus, which was also founded by Jesuits. In 1999, he was named the founding principal of Loyola International College, a position he held until 2004.

IN CONVERSATION - BEYOND THE HEADLINES WILLIAM BUKOWSKI & CINDY FINN

n a wide-ranging conversation at Concordia, William Bukowski and psychologist and school board administrator Cindy Finn explored peer relations between kids, and how success or lack of success in these foundational friendships can set lifelong patterns in school, at work and in life.

For Bukowski, the conversation, excerpts of which appear below, was an opportunity to reflect on decades of research with an informed and passionate colleague.

Does professor Bukowski's groundbreaking research translate into best practices in the classroom?

Cindy Finn is unequivocal: "One of the things we value at the school board is that we have partners in university ...

We're very much consumers of research ... and one of the nice things between our school board and Concordia is that whenever we're engaged in collaborative projects, there's always an opportunity for the researcher to come back and explain the results in a simple way with concrete strategies to implement in the classroom."

THE POLITICS OF POPULARITY

According to Bukowski, being popular and being liked is not the same thing. "They're related to each other," he says, "but they're not by any stretch of the imagination the same."

FRIENDS ARE GOOD FOR YOU

BUKOWSKI: Studies show that children who have trouble interacting with peers are most likely to show negative outcomes when they're adults. Whether it's ending up in prison, having a psychiatric diagnosis, being kicked out of the army or being unemployed. Certainly, criminality is related with functions in childhood.

The opposite is also true, says
Bukowski. Multiple friendships seem to
"inoculate" against negative outcomes
such as bullying, exclusion and other
kinds of aggression. In other words,
kids with friends are less likely to be
victimized by the class bully.

BUKOWSKI: Friendship protects children who have been through



negative experiences [and] who are at risk because of negative experiences during childhood Friendship acts as a buffer against negative consequences of either immediate risk factors or risk factors that have some consequences for subsequent development.

How does this buffering mechanism work? We don't really know, admits Bukowski. But he is working on shedding light on the issue.

AN EXCHANGE ON AGGRESSION

FINN: Earlier, professor Bukowski talked about the difference between the likeability factor and the power factor, and that's one of the things that's tough for teachers to sort out because sometimes, children who are aggressive or bullies have a lot of power.

between popularity and aggression is higher than you might think ... There are some people who are aggressive and they elicit from others victimization. Those kids, as Finn was saying, often end up being poorly liked and even rejected. But other kids can be aggressive and establish some status in the group. These children end up being very well liked. So the sort of people who can gauge aggression in successful ways end up acquiring some power for themselves and that can really set up a difficult dynamic for the teacher.

PRIVILEGE AND PEER RELATIONS

Friendships are more important for kids that are less privileged ... or are they?

Bukowski's earlier assumptions did not stand up to the evidence. In fact, he was frankly surprised by the links he discovered between a child's socioeconomic status and a child's success in peer relationships.

LEARNING THE FOUR Rs

FINN: Over the last several decades we've learned ... that academic achievement is one aspect of competence, as professor Bukowski talked about. But certainly, the whole idea of socialization is an important tool and instrument for helping with school achievement.

BUKOWSKI: I don't know who used the sentence originally but it used to be three Rs: reading, writing and arithmetic. Now it's the fourth R — relationships ... Finn said it so well. With teachers, it's a management game as well as a task of imparting information.

FINN: I've seen tremendous moves forward ... on what we used to call the hidden curriculum, the last bit of social and emotional learning. We're making it much more explicit to say, it's okay to disagree with your peers but you need to have to right words.

BUKOWSKI: What makes a teacher good is that they know that that fourth R is critical. And I think [it] is critical not only in terms of promoting a sense of well-being and belonging in the classroom but also as a way to foster cognitive development.



CINDY FINN

Cindy Finn is director of student services at Lester B. Pearson School Board, the largest English school board in Quebec. Prior to that, she worked as a school psychologist supporting students with special needs. She has a PhD in Educational Psychology from McGill and has practised in Canada and the United States. Finn has published research, presented at academic conferences and lectured at Concordia and McGill. Her research focuses on home-school collaboration for children with special needs, emotional-behavioural disorders, and inclusive educational practices.





"MY HOPE IS THAT TECHNOLOGIES FROM
THE PAST, PRESENT AND FUTURE CAN
COEXIST AND, IN FACT, HELP TO CREATE
A MORE COMPLEX AND RICHER WORLD."

Ever since her return to Concordia in 2002, Joanna Berzowska has been fashioning the future through a series of startling wearable creations that blur the borders of

technology, art and design.

Working at the fibre level and integrating Space-Age materials such as Nitinol, Berzowska's colour- and shape-shifting garments feature fugitive hemlines and disappearing patterns. Some generate power from the wearer's movements, others respond to voice and touch. They hint at a time when interactive clothing will be routine in our lives, reacting to our behaviour and environment ... or even taking on a life of its own.

Berzowska's Skorpion dresses, for example, shown at the Vancouver Winter Olympics, move independently of their wearer, like an elegant parasite that inhabits the body of the host.

CREATING INTELLIGENT TEXTILES

THE FASHION LAB

When she founded XS Labs (Extra Soft Design Research Studio) in 2003, Berzowska's initial desire was to develop soft electronics by embedding components in traditional textile practices. Prior to coming to Concordia, she had been developing prototypes for companies such as Nike, including a sneaker that generates power and changes colour with the runner's speed.

More recently, Berzowska has been collaborating with colleagues and students through XS Labs and Hexagram, the latter a partnership with Université du Québec à Montréal, to produce works in the cultural sphere, including interactive clothing for performers.

You won't find Berzowska's creations at Holt Renfrew — yet. However, her research has enough supporters to attract funds from a who's who of granting agencies, including the Canada Council for the Arts, Social Sciences and Humanities Research Council of Canada, Canada Foundation for Innovation, Canadian Heritage, Fonds

québécois de la recherche sur la société et la culture, and Natural Sciences and Engineering Research Council of Canada.

THE ART AND TECHNO GEEK

A self-professed geek, Berzowska began her first degree at McGill at age 16, in Pure Mathematics, almost simultaneously with a Design Arts degree at Concordia. Following graduate school at MIT, she co-founded International Fashion Machines in Boston, where she provided consulting services with clients such as Herman Miller and DARPA.

She has taught in India, Europe,
Japan and Australia, and her work has
been exhibited widely, including at the
prestigious Cooper-Hewitt, National
Design Museum, Smithsonian Institution
in New York and the Victoria and Albert
Museum in London. She has published
in arts and technology journals and
lectures internationally about the field
of electronic textiles and related social,
cultural, esthetic and political issues.

JOANNA BERZOWSKA

An associate professor of Design and Computation Arts in the Fine Arts Faculty, Berzowska has been profiled by publications such as enRoute, L'actualité, I.D., the Boston Globe, and the Globe and Mail and featured in Maclean's as one of 39 Canadians Who Make the World a Better Place to Live In.

IN CONVERSATION - BEYOND THE HEADLINES JOANNA BERZOWSKA & HAL MYERS

rt commerce, research and ethics converged during a lively exchange at Concordia between Joanna Berzowska and Hal Myers, whose Montreal-based company, Thought Technology, makes biofeedback and neurofeedback devices used around the globe by clinicians, psychologists and high-performance athletes (the Vancouver Canucks, AC Milan and Skate Canada are customers).

In a sense, they both make wearable soft computers — although to achieve different ends.

Their conversation ranged across topics such as the use and misuse of sensors that collect personal medical data, battlefield clothing that performs triage when a soldier has been shot, programming materiality, and manufacturing at molecular levels.

BEYOND THE CYBORG

Berzowska's early frustration with the so-called "cyborg" approach to wearable technology sparked her initial desire to explore a wider range of materials and a broader definition of wearable computing. BERZOWSKA: My original point of entry into electronic textiles was through the field of HCI, which is human computer interaction. I remember 15 years ago, when I was at MIT, talking to pioneers such as Steve Mann, now a professor at the University of Toronto, and he would come into my office and say "look at my wearable computer."

MYERS: He was wearing our equipment, that's our FlexComp system.

BERZOWSKA: Oh I didn't know that, that's wonderful! So my initial reaction was, how can you call that wearable? Because there were these huge hard containers strapped to his body ... So my point of entry into



electronic textiles was actually trying to make these things more wearable by making them softer, helping them conform to the human body ... the same way a silk shirt is wearable.

MYERS: We're actually in the process of developing a sophisticated miniature data acquisition system ... approximately the size of an iPhone.

NO PLACE FOR LUDDITES

As expected from a couple of avid researchers, Berzowska and Myers take a benign view of technology.

BERZOWSKA: "Technology is inevitable ... because we want to constantly strive to improve things, to make things faster, smaller, easier.

That's not necessarily something that can be called good or bad. It would be unfortunate if these new technologies were to completely replace old technologies ... If, for example, electronic textiles were to completely replace more traditional textile technologies.

THE FUTURE IS WEAR TO BE

Barely skirting the outer fringes of science fiction, Myers invokes a future he glimpsed at a U.S. think tank in which a robot with morphing skin could be instantly transformed into a golf buddy ... say, Tiger Woods.

"Perhaps," counters Berzowska, "you'll walk into Ogilvy and download software into your dress."

Shape, pattern and colour will be only so many variables in a future less anchored to the physical world.

TEACHING EXCELLENCE

While the two visionaries share an abiding passion for research and technology, Berzowska says her impact in the classroom may actually be her greatest contribution.

BERZOWSKA: The way I help contribute to new product development is really through my students, through pedagogy. A lot of my students who worked in my lab and who studied with me have now started really exciting companies. I'm quite happy just passing on the knowledge and inspiring students.

MYERS: We actually have one of your students working for us right now ... an industrial designer. Very creative ... a really interesting guy.



HAL MYERS

Hal Myers is the co-founder and president of Montreal-based Thought Technology, the world's leading producer of biofeedback hardware and software, which are used in health care, high-performance sports training, mental health and ergonomics. Some of the more intriguing uses of his company's products include helping stroke victims and people diagnosed with attention deficit hyperactivity disorder. Hal Myers is an electrical engineer with a PhD in Experimental Medicine from McGill. His initial research focused on the use of biofeedback to control pain.







We invite you to download the full discussion at concordia.ca/headlines



"IT IS BECOMING THE CORE LOGIC OF PROFITABILITY FOR BUSINESSES. IF THEY KNOW HOW TO USE ECOLOGICAL EFFICIENCIES, THEY CAN BE MORE COMPETITIVE, ATTRACT MORE CUSTOMERS, ENHANCE BRAND LOYALTY AND RECRUIT BETTER EMPLOYEES."

The director of the David O'Brien

Centre for Sustainable Enterprise came

to his subject relatively late in life.

The "awakening" occurred in 1984, when Paul Shrivastava, who originally trained as an engineer, was teaching at NYU. In December of that year, an industrial accident at a pesticide plant in his hometown of Bhopal, India, profoundly shook his engineer's faith in technology. The worst industrial disaster in history killed thousands in just days. Hundreds of thousands more suffered permanent injury in the aftermath.

The event galvanized the world ...
and gave Paul Shrivastava searing
insights into technology's inherent risks.

Today, the David O'Brien
Distinguished Professor at the John
Molson School of Business (JMSB)
shares those insights, proselytizing
on behalf of sustainable principles to
the business community and leading
multiple research projects in North
America and Europe.

FROM DISASTER TO ACTION ON SUSTAINABILITY

MAKING A MARK ON MONTREAL

Following early research into industrial crises, which culminated in a book on the Bhopal disaster,
Shrivastava extended his inquiries into environmental issues and management.
As a pioneer in the subject, he discovered a troubling lack of awareness about the long-term risks of unfettered development.

By the time he arrived at Concordia in 2009, however, the situation had changed. Business no longer needed to be sold on sustainability — not when shareholders, employees and customers were clamouring for it.

Shrivastava arranged a lunch meeting with some of Montreal's financial

heavy hitters, whose investment decisions can affect the practices of thousands of companies. During the friendly exchange, he told the small group about his interests and sought common ground. That initial group of 15 soon led to the Finance Sustainability Initiative (FSI), which now has more than 65 corporate members, and to the Sustainable Investment Professional Certification program at Concordia.

Developed in partnership with FSI members and offered by the JMSB, the certificate program is accepting its first students for the program, which starts in September. Its goal is to help finance professionals inform their business decisions with sustainability principles — a very long journey from Bhopal indeed.

PAUL SHRIVASTAVA

Part of a team of professionals that helped found Hindustan Computer Ltd., one of India's largest computer companies, Paul Shrivastava also co-founded the non-profit Industrial Crisis Institute in New York City, and the Organizations and the Natural Environment (ONE) Division of the Academy of Management, which now has a membership of some 1,500 business professors who study environmental and sustainability issues.

With a PhD from the University of Pittsburgh, Shrivastava has been a tenured associate professor of Management at NYU's Stern School of Business and held the Howard I. Scott Chair at Bucknell University. A former Fulbright Senior Scholar, Shrivastava has authored or co-authored 15 books and more than 100 articles in scholarly and professional journals.

IN CONVERSATION - BEYOND THE HEADLINES

PAUL SHRIVASTAVA & STEPHEN KIBSEY

Sustainability principles are being embedded in business, Paul Shrivastava and Stephen Kibsey agreed, during a probing exchange at Concordia.

Kibsey is in a good position to know. He's vice-president of Equity Risk Management at the Caisse de dépôt et placement du Québec, which is one of Canada's leading institutional fund managers, with over \$150 billion in assets.

Sustainability is not a sentimental appeal for "do-gooders and tree-huggers," Shrivastava maintains during their conversation. It's now mainstream, which is why finance and investment professionals are tapping into research at Concordia's David O'Brien Centre for Sustainable Enterprise.

The centre focuses on research that enables us to "understand all the connections in marketing and operations, in finance and accounting and information systems, to lead efforts to move towards social and ecological responsibility," says Shrivastava.

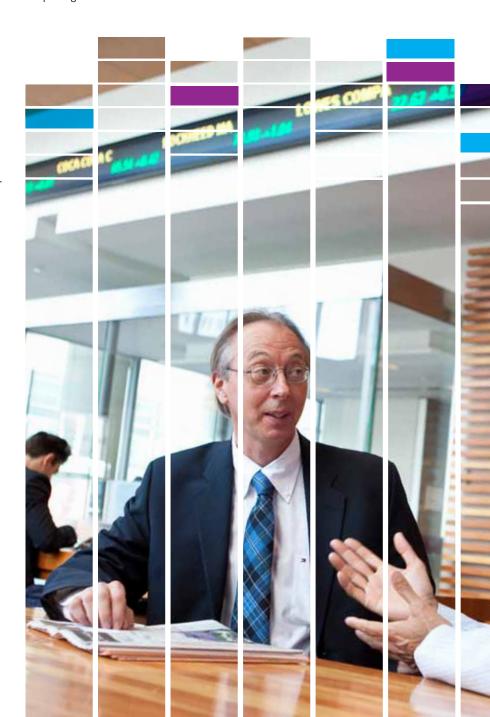
THE CAISSE FOR SUSTAINABILITY

Supported by the Caisse's well-developed policy on responsible investment, Kibsey says, "A lot of mainstream investors are now integrating ESG factors [environment, social responsibility and governance] into their evaluations when they're trying to make an investment.

LEADERS AND FOLLOWERS

In a revealing moment, Shrivastava points out the uneven way sustainability principles are being adopted. "Some are leading, like the Caisse de dépôt," he says, "but there are still some in the old paradigm."

Kibsey agrees that too many investors take a short-term approach, "but the longer-term players like ourselves, which are mainstream, have to look at these ESG factors when we make our long-term evaluations."



THE BUSINESS OF RESEARCH

Shrivastava says companies are now looking for clarity in the relationship between social, environmental and financial issues. They've moved beyond the perceived conflict of a generation ago between social, environmental and financial goals.

shrivastava: Research has ... shown that social and environmental costs don't necessarily have to be only on the cost side. They've also shown that there's a correlation between profitability, social profitability, and social and ecological performance. Of course, we need more studies to validate it under different industry conditions and under different circumstances, but I think there's a lot of research that has provided the confidence business

managers need that this is not just a ethical issue. It is an investment issue ... a real financial issue.

GOING TO MONGOLIA

When the conversation turned to JMSB's Sustainable Investment Professional Certification program, Shrivastava pointed out that it's designed for professionals, "to appreciate sustainability concepts in real life and then apply them to real-life projects."

Kibsey's response affirmed the program's sound design principles. "Let's take an example from my own life," he says. "For the last three weeks I've been travelling through Mongolia. There's no way I could get to the classroom. Yet I had all the materials I needed and what was really interesting is that, as I read the materials in the first module, as I was travelling, I was able to immediately look and assess things with that information ... from the course. So it's kind of a classroom out in the world ... And that's what a professional needs because ... you can learn a lot quicker and use it in your professional assessments right way."

DEVELOPED VERSUS DEVELOPING

Shrivastava ponders whether developed countries are unfairly imposing the concept of sustainability on the developing world.

SHRIVASTAVA: We in the West are over-consuming. We need to cut back ... there's no question about it. But you can't tell the same thing to a person in Africa, or in an impoverished part of India or Mongolia.

While Shrivastava is frustrated by Canada's lack of leadership on environmental issues, he ends the discussion with a note of cautious optimism. "Yes, I'm impatient," says Shrivastava. "On the other hand, I don't see that this is a problem that is unmanageable ... We need leadership that recognizes [a very strong economic case for sustainability] and that not only thinks in national terms, but in global governance terms."



STEPHEN KIBSEY

Stephen Kibsey's interest in sustainability began in high school when he received the Youth Science Foundation's Man and his Environment Scholarship to attend a summer semester at the University of Guelph. He has degrees in Physiology and Engineering from McGill, and an MBA from Concordia. Kibsey holds a CFA designation and is a member of the Community of Interest Panel for the Mining Association of Canada, a member of the interim executive board of the Corporate Social Responsibility Centre of Excellence, Chair of the Business Advisory Council for the Sustainable Investment Professional Certification Program, and a long-time mentor to the Kenneth Woods Portfolio Management Program at the JMSB.

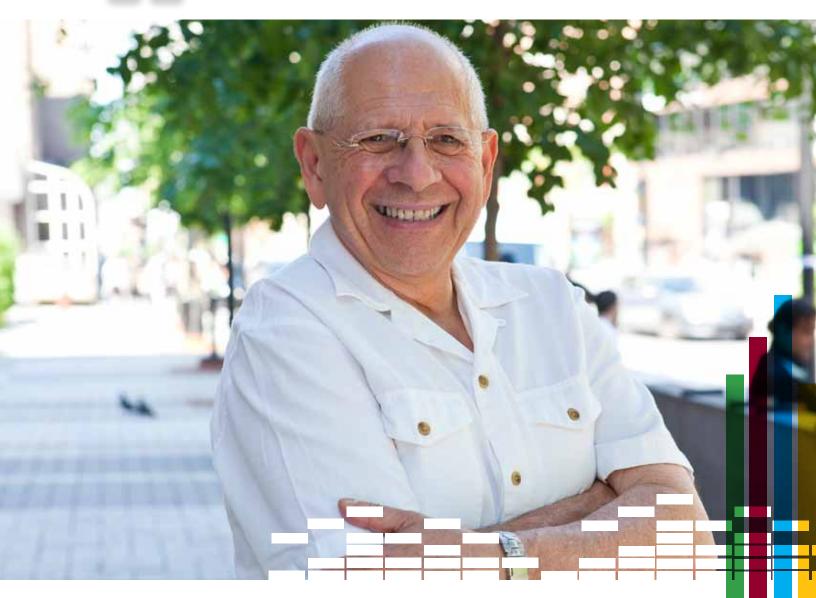






Listen to or view the conversation!

We invite you to download the full discussion at **concordia.ca/headlines**



"I THINK LEADERSHIP IS KEY. A WISE LEADER WILL UNDERSTAND THAT IT'S IMPORTANT TO CONSIDER THE LONG-TERM INTERESTS OF HIS OR HER COUNTRY. AND THAT SERVING THOSE INTERESTS DEPENDS ON PREVENTING MASS ATROCITIES."

THE WILL TO INTERVENE

One of the world's foremost experts on genocide, History professor Frank Chalk is that rare academic — a researcher whose impact on classrooms and seminars is equal to his impact on international courtrooms and national governments.

Chalk has devoted decades to furthering our understanding of why some groups begin by stigmatizing others according to their ethnicity, religion, race or other perceived differences, and end by attempting to erase them from history.

While the Holocaust may
have been the most painstakingly
engineered genocide in Western
history, maintains Chalk, similar
events, each one a blot on human
history, have been erupting since
biblical times — and doubtless earlier.

DISARMING EVIL

When Chalk began studying the morphology of genocide in the 1970s, alongside retired Concordia professor Kurt Jonassohn, the field was surprisingly undeveloped. Together, they staked out the boundaries of a new discipline and published their seminal *History and Sociology of Genocide*. They subsequently founded the Montreal Institute for Genocide and Human Rights Studies at Concordia, where Chalk serves as director and Sen. and LtGen Roméo Dallaire (retired), is the Senior Fellow.

Understanding evil is only part of the equation. Equally important is learning how to stop genocides and how to minimize the chances of new mass atrocities. This is where Chalk's research has had the biggest impact. He has presented his findings at the United Nations and before the prosecution staff of the International Criminal Tribunal on the former Yugoslavia and Rwanda at The Hague. Most recently, he co-authored Mobilizing the Will

to Intervene, first a policy report and now a text book that presents contains concrete recommendations for the governments of the United States and Canada. Two of its recommendations were adopted by the Obama administration.

SELF-INTEREST VERSUS SHAME

One of the key insights in The Will to Intervene is that, when trying to mobilize governments and citizens to prevent genocide, moral suasion isn't enough. People respond best to self-interest.

According to Chalk, leaders need a wake-up call — they must understand that mass atrocities halfway around the world have the capacity to unleash a torrent of consequences in their own countries, including pandemics, influxes of refugees, economic repercussions and long-term political instability. Preventing genocide isn't just the right thing to do. It's also the smart and prudent thing to do.

FRANK CHALK

Frank Chalk obtained his PhD in History from the University of Wisconsin, has been a Fulbright Professor in Nigeria and a Fellow of the Centre for Advanced Holocaust Studies in Washington. The author of many articles, books and book chapters, Chalk has been profiled and cited in the academic and popular press for his pioneering research into genocide studies. He has served as president of the International Association of Genocide Scholars and is a past president of the Canadian Association of African Studies.

Chalk is currently researching how demagogues use radio broadcasting to incite fear, hate and intolerance in troubled regions of the world, as a prelude to genocide.

FRANK CHALK & CHRIS YOUNG

conversation between professor Frank Chalk and Major Chris Young at times excavated the heart of human darkness, and ultimately concluded that genocide and other mass atrocities can be averted, given strong leadership and an interest-based will to act.

A worthy complement and reality check to Chalk's scholarly research and links with high-level decision-makers, Major Young brought his own growing scholarship to bear on the issues, as well as his experience in Afghanistan and Bosnia, the crucible from which emerged the term — if not the age-old practice — of ethnic cleansing.

THE ENDS OF HISTORY

The question of whether humanity can learn from its troubled past is critical for scholars such as Chalk and Young. It goes to the very heart of what they do, and asks why they do it.

In a revealing exchange, Young describes the stark differences he observed between his first and second tours of duty while serving with the United Nations in Bosnia. Although the U.S. military is reluctant to mention it, Young says, operational lessons the United Nations learned in Bosnia were invaluable in Afghanistan and Iraq.

It seems recent history, at least, can teach us something.

NATION-BUILDING

Knowing what to do after the fighting ends is the tough part, says Chalk. It might be possible to temporarily stop the killing — but then what? How do you build a shared national narrative that doesn't dwell on perceived past grievances, on settling old scores?

CHALK: ... this means working with anthropologists, sociologists, political scientists, geographers, historians, even people in the natural and physical sciences, about building a consensus in different societies, in different cultures. One of the historian's jobs is to help build a shared narrative, a workable, fact-based



history — not necessarily one they all agree on, but common ground that embodies their narratives and eliminates a lot of the myths ... So the purely ideological stuff is pushed to the side.

Later in the conversation, Chalk adds nuance to his recommendations. While outside experts are useful, he says, a partnership with the *right* local people is essential: "They know a lot more than we do about their history, culture and outlook; we have to assimilate their perspectives. But they also need us to help them find the way to the future because they carry so much baggage. We carry our own baggage ... but it's different baggage."

CULTURAL INSENSITIVITY

On the subject of the baggage that leaders and soldiers bring to the field, Chalk and Young deplore the frequent lack of sensitivity when dealing with local populations.

They reflect on an incident involving the U.S. military and the humiliation of Afghani villagers that was widely reported in the press, and Young offers his own views on the importance of the cultural training the Canadian Forces provide to soldiers before they are sent into action.

FAR FROM THE KILLING FIELDS

A graduate of the battlefield and command centre, Major Young is currently pursuing his own scholarly research. "My interest in this subject came from two tours in Bosnia in '93 and '96, serving with the United Nations," he says. "I got very interested in the atrocities taking place, why they were taking place, some of the supposed age-old hatreds that were manifesting themselves ..."

These interests have more recently led Young to investigate ways of measuring mission success — as distinct from the more lofty concept of victory. Specifically, how to link military intervention to diplomacy and development in efforts to achieve faster and more enduring results.

YOUNG: [This ties] directly into MIG's Will to Intervene project, because that's one of the fundamental precepts ... this whole idea of linking all three lines of operations and coming up with a coherent package that's able to move into the country, operate in that country, prevent atrocities, stop the genocide if it's in the making and then withdraw, leaving it a safe and secure environment.

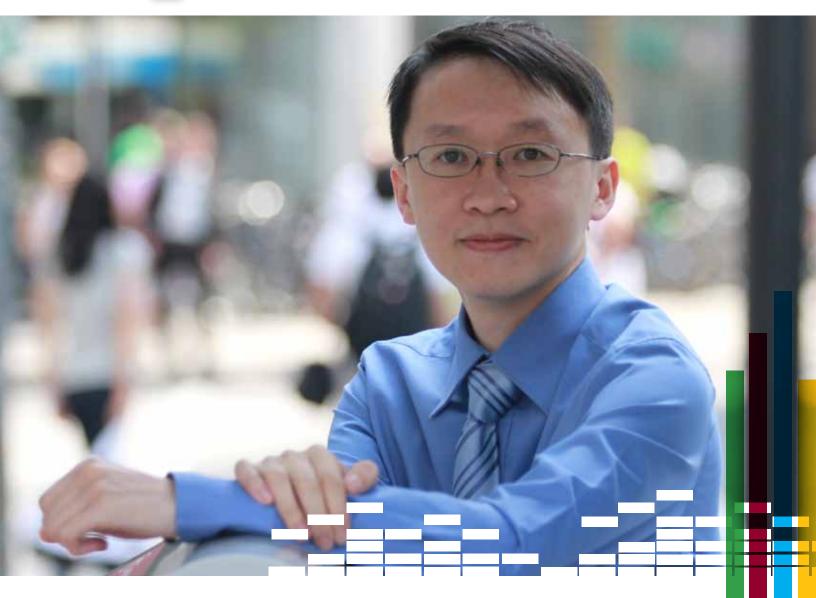




CHRISTOPHER YOUNG

and served tours of duty in Croatia and Bosnia during the 1990s as a factions and contingent operations officer. He has also served in Afghanistan and spent five years as a Canadian Forces liaison officer in Fort Knox, Kentucky, monitoring United States Army developments in armour.

Chris Young has been decorated by the United States Army, NATO, the United Nations and the Canadian Forces, and is currently a PhD student at Concordia, working on conflict studies and international relations.



"IT'S LIKE TRYING TO PREVENT FOREST

FIRES OR TRAFFIC ACCIDENTS. YOU

CAN'T COMPLETELY ELIMINATE ALL

CYBERCRIME. BUT YOU CAN ACTUALLY

LIMIT OR RESTRICT THE DAMAGE."

FIGHTING CYBERCRIME

Inventing a powerful new weapon against crime could put you on the world's most-wanted list — in a good way.

Professor Benjamin Fung and his team at the Concordia Institute for Information Systems Engineering (CIISE) developed a tool that helps investigators identify criminals behind anonymous emails, using clues such as syntax, spelling, punctuation, capitalization and other attributes.

The breakthrough was reported in more than 50 publications worldwide, and the calls and emails soon began pouring in — from police, private investigators, courts of law and victims.

"Hundreds of threatening emails
were forwarded by victims asking me
to identify the author;" says Fung.

MINING FOR CRIMINALS

Fung earned his spot on the mostwanted list by advancing the global battle against spam and other malicious cybercrime, which often preys on the elderly, the young and uneducated.

His research specialty is data mining, which deploys complex algorithms to extract useful knowledge from raw data.

When analyzing emails, for example, his tool ignores shared characteristics among suspects to zero in on nearly invisible quirks, such as vocabulary richness and punctuation. The combination of these hard-to-disguise quirks can, for example, identify the writer's gender and nationality.

Fung and his co-author, CIISE director Mourad Debbabi, published their findings in the peer-reviewed journals, *Informational Sciences* and *Digital Investigation*, with support from Canada's National Cyber-Forensics and

Training Alliance. The consortium of government, industry, law enforcement and academic researchers is based at Concordia.

WEAPONS TESTING

Fung's team famously tested their weapon on hundreds of emails written by disgraced Enron executives, to demonstrate accuracy of 80 to 90 per cent — a remarkable advance over previous methods.

This isn't enough for a conviction in criminal court — which requires evidence beyond a shadow of a doubt — but it does support expert testimony and helps the police to build a stronger case.

Now that his weapon is part of the cybercrime-fighter's arsenal, Fung has turned his attention to blogs, instant messaging and social media, which criminals also use to prey on victims.

BENJAMIN FUNG

An assistant professor at the Concordia Institute for Information Systems Engineering (CIISE) and a research scientist of the National Cyber-Forensics and Training Alliance Canada, Fung has a PhD in computing science from Simon Fraser University. He has more than 40 publications on data mining, privacy protection, cyber forensics and web services to his credit, and his research has attracted support from the Natural Sciences and Engineering Research Council of Canada, Defence Research and Development Canada, and Le Fonds québécois de la recherche sur la nature et les technologies. A licensed software engineer, Fung is currently affiliated with the Computer Security Lab at CIISE.

IN CONVERSATION - BEYOND THE HEADLINES

BENJAMIN FUNG & LYNNE PERRAULT

uring an absorbing investigation of cybercrime, Benjamin Fung and Lynne Perrault, director of the Electronic Commerce Enforcement Division at the Canadian Radiotelevision Telecommunications Commission (CRTC), managed to touch on global security, Canada's new antispam legislation, botnets, phishing and, perhaps most problematic of all, plain old human nature.

"In law enforcement," says Perrault during the conversation at Concordia, "[we understand] that the weakest link is in fact the general public, who click on the link that they're not supposed to ... Curiosity is always an issue."

THE FIFTH DIMENSION OF WAR

Fung begins the discussion with a startling fact that brings the scope of cybercrime into sharper perspective.

FUNG: The U.S. Department of Defense has just officially announced that it now considers cyberspace to be the fifth dimension of warfare, in addition to land, sea, air and space. This decision pretty much reflects the fact that critical infrastructures in our society, such as telecommunications, transportation and financial systems, operate in cyberspace, and we cannot afford to lose these systems.

BATTLING BOTNETS

For the U.S. military and many governments, the fifth battlefield is overrun by botnets that, Trojan horse-like, conceal their malicious load. Hackers typically distribute botnets through emails or websites.

"Once a computer gets infected," explains Fung, "it may still perform normally, as usual, until it receives some command from the hacker. So the computer becomes a servant or robot for that particular hacker. And the hacker can give a command, say to attack a particular web server.

"My colleagues in the security team at Concordia are working on identifying the servers and dismantling those botnets before they actually cause any real damage. And in that aspect they are

demonstrating some success in this area."

Perrault counters that 80 to 90 per cent of all email traffic is designated as spam, and while Internet service providers are doing an excellent job at filtering out most of the junk, botnets remain a problem.

"How big is [this problem] in Canada?" she says. "There are upwards of 30 command and control botnet servers in Canada identified ... One



command and control botnet server can disseminate voluminous amounts of spam, and identifying these servers is going to be a key issue."

BILL C-28 ON THE TABLE

During one exchange, Perrault provides a fascinating chronicle of Canada's new anti-spam legislation, which received royal assent in December 2010.

"We were one of the last countries to come to the table with anti-spam legislation," she says. "That allowed us to look at other legislations and take the best from all of them.

"I'd venture to say that once ... we start enforcing the legislation, Dr. Fung is going to have the opportunity to work with some real-life data to test out his tool. I'm anxious for that to occur."

A HISTORY OF INSECURITY

Offering a short history of the Internet, Fung points out that "the original purpose of the Internet was to share information, not to protect information."

Nevertheless, he says, throughout the past decade we've been overlaying a growing number of secure transactions, such as e-business and e-banking, over a fundamentally insecure environment. While this had led to a period of transformation, Fung doesn't believe we're at an impasse.

"I'm optimistic that it's possible to perform secure operations," he says, " ... by using different techniques such as encryption or cryptography I agree it's difficult, but I think it's still achievable."

PARTNERS IN CRIME FIGHTING

Whether a secure Internet is achievable will largely depend on partnership, which is itself problematic. "[Partnering] is a new concept for law enforcement," Perrault admits. "We tended to work in silos, and once we got the information we wanted to keep it there."

That's all changing, however, driven by the sheer scope and complexity of cybercrime.

PERRAULT: We need to partner with research specialists, such as Dr. Fung, with other industry partners who are seeing the trends and threats as they happen to their networks ... We [the CRTC] don't have that ... immediate view, or real-time view, of the situation.

So partnering is going to be paramount [for] organizations like the National Cyber-Forensics
Training Alliance Canada and its sister organization in the U.S. ... [We need] these non-profit organizations, that bring together academia, industry, law enforcement, government, etc., to tackle cybercrime.

INSTITUTIONALIZED LEARNING

With a background in private enterprise and academia, Fung echoes Perrault's appreciation of partnerships — and can't resist plugging one of the nation's foremost centres for cyber security.

FUNG: Training is one of the primary objectives of ... [the] Concordia Institute for Information Systems
Engineering. We have a specialized master's program in Information
Systems Security, which is organized by six faculty members with different security backgrounds, from cyber forensics to privacy protections, from network system security to cryptography.



LYNNE PERRAULT

Director of the Electronic Commerce Enforcement Division at the Canadian Radio-television Telecommunications Commission (CRTC), Perrault is responsible for ensuring compliance with Canada's new anti-spam legislation (Bill C-28). Prior to joining the CRTC, Perrault was executive director of the National Cyber-Forensics and Training Alliance Canada and a computer forensics officer in the electronic evidence unit of the Competition Bureau, which is an independent Canadian law enforcement agency. She has more than 20 years experience in forensics and policy development.





"COMMUNITY ENGAGEMENT IS INTRINSIC
TO THE VERY DNA OF CONCORDIA. THE
LIVE CENTRE MAY BE JUST A YEAR OLD, BUT
VOLUNTEERING HAS BEEN A CORE VALUE AT
CONCORDIA SINCE ITS FOUNDING ... SO WE'RE
PROVIDING CONTINUITY WITH THOSE VALUES."

Tucked away on the sixth floor of the downtown Hall Building, Valerie Millette's modest office appears indistinguishable from dozens of others spread across Concordia's two campuses.

And yet, as the visitor soon realizes, this is the beating heart of a volunteer tradition that reaches back to the very roots of the Concordia community.

engagement with the world, its rate
of volunteerism would be a good
barometer. And, at Concordia at
least, the LIVE Centre would be a
good place to start measuring.

a community's compassion and

VALERIE MILLETTE

VOLUNTEERISM: CONNECTING WITH THE COMMUNITY

LIVE CENTRE A FIRST

After being "hooked on volunteering somewhere along the way," Millette parlayed her passion into a master's degree in Management from the John Molson School of Business (her thesis topic was enhancing volunteer motivation and satisfaction).

Today, as coordinator of the Leadership Initiative and Volunteer Engagement (LIVE) Centre, Millette is conscious of the legacy placed in her care. The first resource of its kind among Quebec universities, the centre brings together volunteer resources and opportunities from across the two campuses, Montreal, and even abroad.

In addition to fielding inquiries and acting as a clearinghouse for volunteer opportunities, Millette also leads regular workshops and advises faculty and staff on how to best use this precious resource.

"Students come to learn about volunteer opportunities and also get coaching," she says.

At the other end of the spectrum, faculty and staff can use the centre's services to connect with students who are eager to contribute.

MEALS ON WHEELS GO FULL CIRCLE

Before moving to Montreal, Millette's first volunteer experience was with Meals on Wheels, bringing food and companionship to isolated seniors. Her decision to volunteer, she admits now, was also strategic, both personally and professionally. Like many of today's students, she wanted "to get experience. To see what I could get out of it."

Since then, her meteoric rise has seen her take on the roles of volunteer coordinator, recruiter, trainer and member of not-for-profit boards and committees.

Her latest passion, however, has been to volunteer with ... seniors, spending time each week providing companionship to the elderly.

LIVE LARGE

During its first year of operation under Valerie Millette's leadership, Concordia's LIVE Centre connected with more than 1,200 students. As well, some 600 students benefited from one-on-one coaching, which helped them find and get the most out of volunteer opportunities that matched their skills, interests and goals.

The LIVE Centre's website
(volunteer.concordia.ca) and Facebook
page attract thousands more people
who visit to find and share information
about giving back to their communities.

IN CONVERSATION - BEYOND THE HEADLINES

VALERIE MILLETTE & ALISON STEVENS

uring their summit of minds and passions at Concordia, Valerie Millette and Alison Stevens discussed the challenges and transformative powers of volunteering.

The technologies have evolved, and so have the needs of volunteers, driven by our nation's changing demographics and corporate involvement. But giving back to the community continues to generate lasting value for individuals and organizations.

Stevens heads up the Volunteer Bureau of Montreal (VBM), which celebrates its 75th anniversary in 2012, while Millette's LIVE Centre just finished its first year in business.

TELLING THE WORLD

During one of the early exchanges in the conversation, Stevens remarks that, "It would be great if all universities had a volunteer centre of some kind ... because we [at the VBM] don't specialize in students ... we don't have the in-depth experience or knowledge."

The pair also reveal that they are as deeply committed to the practice as to the promotion of volunteering.

STEVENS: We have a much larger role of ... educating individuals, the general public and organizations about the best way to engage volunteers ... to make it a good experience.

MILLETTE: The LIVE Centre also has a role in educating ... working with staff who may want to engage volunteers, and trying to [follow] best practices in volunteer management.

MIND THE GAP

Reflecting on Bridging the Gap, a 2010 research study on volunteerism in Canada, Millette and Stevens trade insights on how to better align the organization's needs with the volunteer's personal and career goals.

Recalling her own early experience,
Millette says most students are "looking
to develop skills. This brings a much

higher demand for projects based on using these skills ... But a majority of volunteer opportunities ... may not be skill based."

Part of her job, she concludes, is getting more organizations to understand what student volunteers are looking for, and to thereby narrow the gap.



Stevens agrees, observing that today, "younger people, or people who are professionals or early retirees, want short-term involvement. They want to see the results of what they do — compared to the traditional volunteer ... who is just happy to help out over the long term."

AMASSING SOFT SKILLS

While the desire to gain experience and skills may be most students' chief motive for volunteering, Stevens points out that they often get more from the experienced than they expected — often much more. In fact, she suggests, they really should keep an open mind about what volunteering will do for them.

STEVENS: It's very hard to educate for soft skills, and one of the advantages of volunteering is that you get to work with people ... on a team ... to practise communication. Those skills are very valuable.

MILLETTE: You talk about soft skills. I talk mostly [to students] about transferable skills, but they're the same thing. And that's the education I do with students ... thinking through with them what skills they will need to get a job. Even if they will be an IT specialist, work in a pharmaceutical lab or as an engineer, you'll be working with a team of people.

MULTICULTURAL CONCORDIA

At one point in the conversation,
Stevens describes the profound
demographic and cultural shifts that
no longer support Canada's traditional
volunteer model. Our aging population,
for example, will increase pressure on
volunteer agencies. Immigration has also
changed how Canada volunteers. While
new Canadians do volunteer, they do so
for different causes and reasons.

Millette responds with her own experiences at Concordia, which hosts students from dozens of nations.

However, there are impediments. For example, international students face daunting language barriers — in English and French — and need to be carefully directed to the right organizations.

They want to become involved but

they face additional challenges — lack of experience working in Canada, says Millette.

"We have resources," she says, "but we need ... more organizations that will welcome international students, new immigrants, different generations ... so we can better integrate people to face those challenges in the next few years."

THE SUPER VOLUNTEER

The generation just previous to the baby boom produced a raft of "super volunteers" who famously volunteered vast resources of time, money, skills and energy to the not-for-profit sector. Stevens cautions that these superlative givers aren't being replaced.

Indeed, she says, "different cultures, different values, different interests" are causing a radical change in volunteering, and it's up to agencies to adapt to meet future needs.

From a Concordia perspective, Millette is characteristically upbeat: "I see so many students who want to get involved, who are engaged, who are doing things, and if they're not finding a place where their passion fits, they're actually creating their own projects."

"This younger generation," she concludes, "is far from apathetic."



ALISON STEVENS

A lifelong volunteer who began as a candy striper at a Toronto hospital, Alison Stevens is today the executive director of the Volunteer Bureau of Montreal, the oldest volunteer centre in Canada, which works with about 1,000 organizations.

The environmental, educational, social justice and health issues she championed in her community eventually led Stevens to a master's degree in Human Systems Intervention at Concordia. She then worked as a consultant in the public and private sectors, before joining the Volunteer Bureau of Montreal. She is currently the chair of Volunteer Canada's Advisory Council of Volunteer Centres and the vice-president of Canadian Administrators of Volunteer Resources.

CONCORDIA AT A GLANCE

Concordia University is welcoming, engaged and committed to innovation and excellence in education, research, creative activity and community partnerships. It dares to be different and draws on its diversity to transform the individual, strengthen society and enrich the world.

We offer more than 300 undergraduate and 200 graduate programs, diplomas and certificates in our four Faculties, a School of Graduate Studies and a School of Extended Learning. More than one-quarter of our students are enrolled in graduate studies.

TOTAL PERSONNEL

7,106

PERSONNEL BY CATEGORY

ADMINISTRATIVE & SUPPORT (PERMANENT)	1,543
ADMINISTRATIVE & SUPPORT (NON-PERMANENT)	374
ADMINISTRATIVE & SUPPORT (HOURLY/NON-PERMANENT)	1,435
PROFESSIONAL LIBRARIANS	38
FULL-TIME PROFESSORS	961
PART-TIME PROFESSORS	662
CONTINUING EDUCATION PROFESSORS	93
RESEARCH (NON-PERMANENT)	743
TEACHING ASSISTANTS	1,257

TOTAL ALUMNI

160,000



TOTAL STUDENT ENROLMENT

45,962 ENROLMENT IN CREDITED COURSES: 42,522 ENROLMENT IN CONTINUING EDUCATION: 3,440

ENROLMENT BY LEVEL

UNDERGRADUATE	35,407
FULL TIME:	23,079
PART TIME:	12,328
GRADUATE	7,115
FULL TIME:	5,123
PART TIME:	1,992
CONTINUING EDUCATION	3,440

RESEARCH CHAIRS

CANADA RESEARCH CHAIRS 23 FILLED **CONCORDIA UNIVERSITY RESEARCH CHAIRS** 46

ENROLMENT BY FACULTY

ARTS & SCIENCE

JOHN MOLSON SCHOOL OF BUSINESS

8,940 (21%)

3,708 (9%)

FINE ARTS

ENGINEERING & COMPUTER SCIENCE

INDEPENDENT & VISITING

TOTAL 42,522



CONCORDIA.CA/HEADLINES







CONCORDIA IN THE NEWS

A SNAPSHOT OF WHAT MADE THE HEADLINES

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Expo 101: skir

Donner du temps tout en faisant a

De-coding Your Email Personality **New York Times** July 23, 2011

The Tricky Politics of Tween Bullying **TIME** December 3, 2010

Study: Sex workers do it to pay bills **UPI.com** June 8, 2011 Une passion durable **Le**

Worker freedom produces happy, loyal employees CTV.ca January 30, 2011

Teen stress doubles risk of depression in adulthood Daily Mail (U.K.) November 5, 2010



In this parallel world, volunteering counts **Montreal Gazette** August 22, 2010

Life goes on: Doomsday believers on the morning after

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Consider anxiety in or

Cigarette Tax Unlikely to Deter Some Smokers: Report U.S. News & World Report July 15, 2011

Child's Play? 3-Year-Olds Fancy Their Own Ethnic Group Fox News June 30, 2011

Spring clean your mind to improve your memory The Telegraph (U.K.) April 21, 2011

A Canadian Hazard:

Study shows many four-year-olds understand sarcasm from parents

The Consuming Instinct **The Wall Street Journal** June 21, 2011

Radio-Canada: La musique apaise la douleur May 11, 2011

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Devoir November 29, 2010 Netherlands returns Brueghel painting to Canada AFP (France) November

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The Globe and Mail September 16, 2010

Concordia changes science learning Montreal Gazette August 6, 2011