

The Corporate Knights 8th Annual Knight Schools Survey

Are we there yet?

Getting antsy on the educational journey to greener pastures

Research led by ERIN MARCHINGTON with support from JULIA BARNES, MÉRÉDYTH BOWCOTT and AZRA FAZAL

Commentary by Jon-Erik Lappano and Erin Marchington

Ask a friend or colleague to recite their multiplication tables, the alphabet or grammar rules, and they should be able to answer you without too much hesitation. All children are taught the basics of math, spelling and writing because these are fundamental components to everyday life—a common language for society. As we progress in the education system, we orient ourselves to more specific languages and fundamental theories: the businesswoman banter over balance sheets; the lawyer laughs about litigations; the teacher talks of training methods; the doctor dreams of diagnoses.

What if we added principles of sustainability to our basic “ABCs” of life, informing fundamentals of education in every profession?

For the past eight years, CK has evaluated the integration of sustainability into professional school curricula. Our focus lies in disciplines not typically associated with the concepts surrounding sustainability, but those traditional walks of life we feel need an infusion of environmental, social and governance (ESG) principles. As in past years, the 2011 rankings focus on business (MBA and undergraduate degrees), law and teaching degree programs offered at universities across Canada. New this year is a foray into medicine. The underlying question of our study: Have

our universities reached a point where sustainability is considered an integral component in the education of future business leaders, lawyers, teachers and doctors?

CK is interested in encouraging

sustainability as a common language, for reasons plain and simple. If newly hired MBA grads were exposed to concepts of sustainability in their education, the chances that they would reflect and call upon that training

in the working world is surely higher than if they had not been exposed to these concepts. Likewise, teachers who learned about environmental and sustainability education methods are more likely to use those methods in a classroom, lawyers trained in human and environmental rights are more likely to recognize those issues in a case, and doctors who understand the concepts of ecosystem and environmental health are more likely to use this knowledge in the treatment of their patients.

As a result, a new “sustainable norm” might be established and a new pattern of behaviour will hopefully emerge. This is one way to create societal change. It is a slower change than government legislation or regulation. And it is true that there are many other factors other than education that influence the actions and decisions made by professionals; surely traditions within a discipline and social, economic and legal pressures also play an influential role. But in Canada, our higher education institutions are unique places where professionals



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come of age, and where first-learned lessons are not easily forgotten.

At this point, the concept of sustainability has been around for a few decades—certainly enough time to seep into our societal fabric and be on its way to saturating the disciplines of higher education.

Is this what we found in our 8th Annual Knight Schools Survey?

Not quite. While some schools are working diligently and proficiently towards the common good, it seems that much of academia is taking a long rest in the middle of the journey. Others still are lingering far behind the rest, with hardly a whisper of ESG issues in the curriculum.

The front-runners of sustainability require students to complete mandatory courses or projects on related topics. External speakers are brought in to lecture about sustainability in the discipline, research centres are actively pushing the boundaries and questioning what we know about the topic, and students themselves are active in exploring sustainability-related issues within and outside of their education. The program is a hotbed for innovation, discussion and engagement around sustainability.

Unfortunately, the work by front-runners to get their students up to speed with sustainable society is harshly contrasted by the overwhelming lack of action by many other institutions. For the eighth year in a row, many institutions are nowhere near the integrated model that a few front-runners exemplify. For many MBA and undergraduate business programs, a “professional ethics” course in their first year is the only required course resembling ESG criteria. Similarly, most law schools require their students to take corporate law and property law, but human rights law and environmental law are not required. Teaching programs often have courses on diversity and

inclusion, but rarely sustainability theory, and medical students are rarely exposed to environmental health topics in their curriculum.

With sustainability still resting on the fringes of most degree programs, it is evident that we still have a long way to go until integration is achieved.

A glimmer of hope in this journey comes from the abundance of research initiatives by faculty and student-led initiatives even at schools that have not moved to integrate sustainability theory into their curriculum. So it is evident that the ideas are there, in both teachers and students, but the transfer

to formal training has been limited. This is something that could change in the future, especially if called for by the professional community themselves.

Professor Peter Hardi at the Central European University Business School is currently using focus groups of CEOs and managers to assess what skills they are looking for in new graduates in terms of sustainability and anti-corruption training to then inform the development of the business school curriculum. Initial focus groups show that this type of training is a high priority in the business community.

“Business ethics and anti-corruption teaching starts from the ‘supply’ side, or, what educators should teach students,” Hardi says. “A significant challenge is the effectiveness of anti-corruption education—[corruption] keeps coming back.”

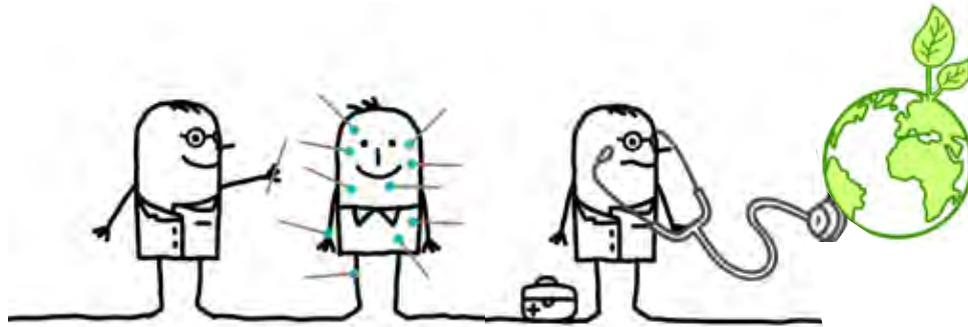
It may be in the future that professional community norms and societal change actually precede and prompt higher education institutions to adjust their professional training degrees. If this is the case, it will be interesting to track it in future Knight Schools rankings, with the potential to correlate findings to our Best 50 and Global 100 reports, which measure sustainability in the business community, to see the results of sustainability education in action.

And so, eight years into the journey to integrated sustainability education, the overall progress of the caravan called academia is not clear. While the outliers are charting clear passages forward, much of the convoy seems perfectly content to lag far behind (some are still parked in the driveway), unmotivated by the thrills of a new and better frontier. For the rest, it’s time to pull out of the rest stop and continue along the path, kicking it into high gear while you still can, to make up for valuable lost time. 🐾



Knight Schools Spotlight on medicine

A preliminary examination of sustainability integration within the curriculum and research initiatives at Canadian medical schools reveal some promising steps in the right direction, but a general lack of momentum across the board



What does your doctor have to do with sustainability? Typically, we associate our health care providers with the preservation and maintenance of human well-being—as stewards of our bodies, not of the planet. We want our doctors to know our respiratory and circulatory systems by heart (forgive the pun); we want them to identify and treat a melanoma or carcinoma without hesitation. We don't generally expect them to give us a lesson on climate change or have vast knowledge on the causes of local air pollution, or to take on the fight against pesticides.

But perhaps we should. The health of our bodies and the health of our environments are inseparable, and our doctors are well positioned to be joint ambassadors of both.

In the treatment of a disease or illness, your doctor is probably trained to consider a variety of factors according to three main

pillars: the biological (body), psychological (mind) and social effects. In the medical field, this is referred to as the biopsychosocial model. Yet this model could undoubtedly become more all-encompassing if it were expanded to take into account environmental or ecological factors. An eco-systemic model that considers the interrelated dynamics of ecosystem health and human health is a crucial component of a truly sustainable medical system.

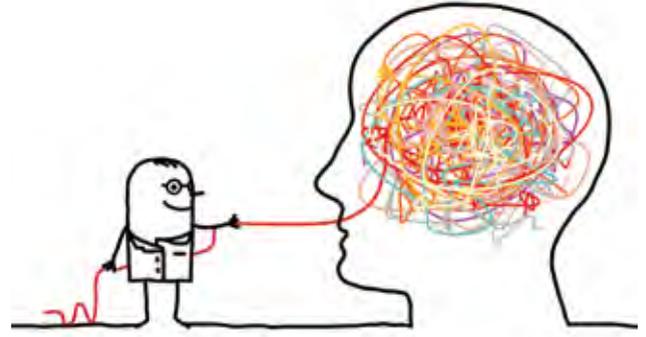
So, what skills, knowledge or approaches would an "ideal medical doctor" have after training in an environmental or sustainability-oriented medical school program? Gideon Forman, executive director of Canadian Association of Physicians for the Environment, gave us his perspective:

"A doctor trained in a sustainability-oriented medical program would take a holistic approach. She would ask, 'What truly makes people sick, and what genuinely makes them

well?' She would see the health of individuals inextricably linked to the health of the planet. She would feel a duty not only to heal her patients but to heal the earth. She would know how to prescribe medicine but also how to win environmental legislation."

Yet the language traditionally used to discuss sustainability may not translate directly into the medical field. This does not mean that the basic concepts of sustainability are not found in medicine, but that different descriptors are used. An example of this is "preventative medicine," which has a clear connection to sustainability, as it emphasizes long-term thinking and action with importance placed on cause rather than treatment. Another example could be "holistic" approaches in medicine that broaden the traditional or biological based definitions of health and wellbeing, much as the concept of sustainable development integrates social, economic and environmental elements.

With awareness of the medical ‘sustainability language’, CK explored some of the current research going on at universities across the country. Here are some of the best practices of sustainability-minded research in Canadian medical schools that we found:



UNIVERSITY OF WESTERN ONTARIO

The Office of Global Health

The Office of Global Health embraces a multifaceted approach to health, which highlights the interconnectedness of medical, social, environmental and cultural determinants of health.

The Marginal Communities Clinical Experience is an optional program that allows students to gain experience working with local marginalized populations. Fourth-year students looking for international experience can also apply for an international clinical placement designed to familiarize them with different diseases, working conditions and cultural traditions. In 2012, the school will host a conference entitled “Transcending Borders Towards Global Health: Discovering Sustainable Pathways Local to Global.” Through its Global and Ecosystem Health Interest Group, the student body is also active in promoting a systems approach to health.

UNIVERSITÉ DE MONTRÉAL – MPÀC: Pour que les médecins tiennent la prévention à coeur

What are medical students being taught about prevention? This study targets MD students and graduates to determine how they perceive the responsibility of preventative medicine to be shared among health-care professionals, and how their perceptions change throughout medical school. Researchers hope to help overcome the challenges of integrating the concept of prevention in medical education.

LAURENTIAN UNIVERSITY AND LAKEHEAD UNIVERSITY – Northern Ontario School of Medicine (NOSM)

At NOSM, all first-year MD students take part in a one-month Integrated Community

Experience in a remote aboriginal community. The program aims to heighten their awareness of issues affecting rural and aboriginal communities and cultivate cultural competency. A leader in Northern health research, NOSM organizes the annual Northern Health Research Conference.

MCMASTER UNIVERSITY (HEADQUARTERS OF MULTICENTRE STUDY) – Canadian Healthy Infant Longitudinal Development (CHILD) study

The rise in allergies, eczema and asthma has increased interest in the link between environment and health. The CHILD study follows 5,000 children from “pre-birth” to the age of five with the goal of assessing how genetic and environmental factors combine to affect children’s health and development.

WOMEN’S COLLEGE HOSPITAL – Environmental Health Conference: Clinical Pearls

Women’s College Hospital is home to one of Canada’s two Environmental Health Clinics. In May 2011, its one-day conference included sessions such as “Prenatal and Childhood Toxic Metal Exposures - Primary and Secondary Prevention Strategies,” “Body Burden, Plastics and Pesticides” and “Health Impacts of Poor Indoor Air Quality.”

UNIVERSITY OF BRITISH COLUMBIA – School of Population and Public Health Seminar Series

The School of Population and Public Health hosts two weekly seminar series on Occupational and Environmental Health, and Population and Public Health. This forum has allowed researchers to present on a wide variety of topics such as hearing loss among transit riders and developing global health partnerships.

UNIVERSITÉ LAVAL – Understanding Vulnerability to Climate Change

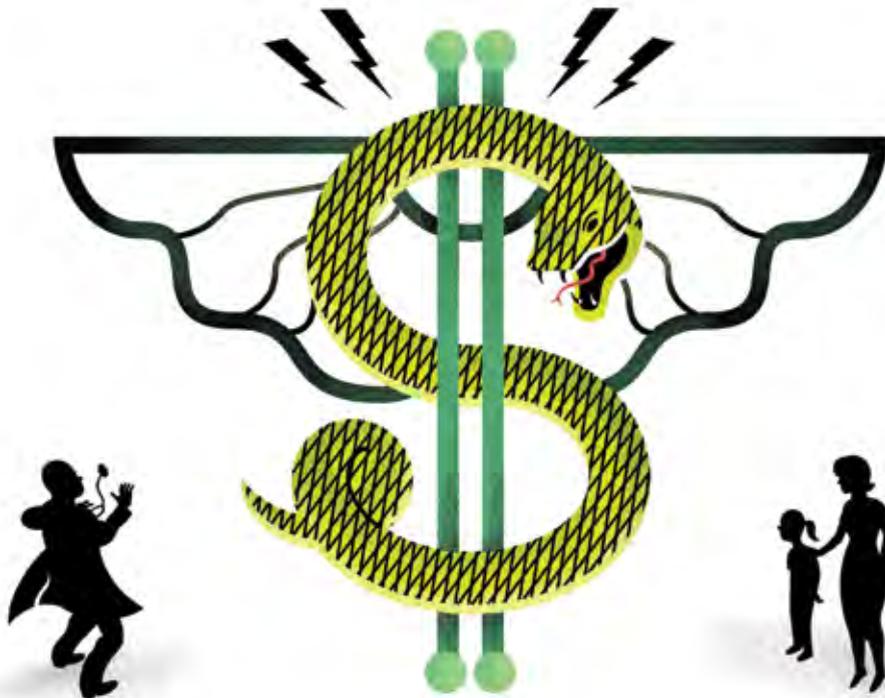
Researchers are developing a web tool to manipulate and analyze spatiotemporal climate change data to better understand the linkages between climate and health vulnerability. The application will combine social, health and environmental data along with climate models, making it an invaluable tool for decision-makers in Canada and around the world. 🌍

Note: The Knight Schools medical program survey was sent to all universities offering MD programs, but was not completed by any of the institutions, so a formal ranking was not completed this year due to an overwhelming lack of information. In lieu of this, CK conducted a preliminary “spotlight” investigation using some portions of the survey and a small pool of medical doctor programs.

The indebted medical student

Why rising tuition may be leaving family doctors at a loss

by BRIAN GOLDMAN, MD



I've been fortunate enough to enjoy two high-adrenaline careers as an ER physician and a medical journalist and author. Both careers have come together on my CBC Radio show, *White Coat, Black Art*, in which I pull back the curtain to explore the culture of health care.

What never ceases to amaze me on the show is the utter devotion of all the health care providers who make up our Canadian health care system. It makes it clear that a

sustainable society's need for competent and passionate health practitioners is as perpetual as the seasons—new generations of high-quality doctors must be encouraged to come out in droves.

And thankfully, they are out there. In my role as radio host, I am often awarded the privilege of hearing from such committed and motivated students embarking on the early years of their medical journey. Recently, Nicole Perkes of Port Coquitlam, B.C., sent me a note announcing her acceptance into

medical school, and thanking me for the show's contribution to her success in making her vision for a future in health care a reality.

In my congratulatory note to Nicole, I reminded her that she did all the work getting past the interview and into medical school—and that she will need a lot of dedication and perseverance to survive her undergraduate years and beyond.

But there is another obstacle in Nicole's way, lurking in front of all medical students, and whittling away at the numbers of

There's growing evidence that rising medical student debt is playing a role in Canada's dearth of family doctors.

Canada's future family care providers: debt.

As it turns out, students like Nicole will also need quite a lot of money to graduate. Medical school tuition is rising as though the schools themselves were filled with helium. According to a survey published in *Macleans* magazine last fall, first-year tuition for the previous academic year ranged from a low of \$7,499 at the University of Manitoba's faculty of medicine to a whopping \$20,831 at McMaster University. Québec medical schools offer lower tuition costs to Québec residents. University of British Columbia, the school Nicole Perkes enters this September, charged \$15,457 tuition to first-year students.

And tuition is only the beginning. Add in books and equipment, plus the cost of living, and the total price becomes daunting.

When I left residency back in the 1980s, I owed the bank \$9,700 in student loans. That's small beer compared to the debt racked up by today's medical students. According to the 2007 National Physician Survey, more than one-third of respondent students said they expected their medical school-related debts to top out at more than \$83,000. Among third- and fourth-year med students, a little more than five per cent said they expected to have total debts of over \$160,000.

Yet believe it or not, it could be worse. Three years ago, I travelled to Ireland to visit Geoffrey Stevens, one of several thousand Canadians studying medicine abroad at the time. Stevens, a native of Ontario, attended medical school at Dublin's Royal College of Surgeons in Ireland. Stevens admitted he didn't get into a Canadian medical school because he favoured partying over studying during his undergraduate years and his



grade-point average suffered as a result. Medical schools in Ireland aggressively recruit students from North America, but at a cost.

At the time, Stevens' first-year tuition alone cost €34,000. Annual tuition increases, living expenses and the then-weak Canadian dollar drove his total costs to close to half a million Canadian dollars. The debt was always on his mind.

"It influences how my future will unfold," he said during an interview on *White Coat, Black Art*. "No matter where I go, I will always be thinking about how to pay this back."

And why should the dwindling bank account of a medical student matter to you?

Because rising debt doesn't only affect those budding physicians. It has a huge impact on the health care system itself. According to Statistics Canada, in 2010, 4.4 million Canadians or 15 per cent of the population age 12 and older did not have access to a family doctor. The same survey found that

53 per cent of those without a regular medical doctor had tried unsuccessfully to find one. Among these, 40 per cent said that doctors in their area were not taking new patients, 31 per cent said their own physician had retired, and 27 per cent said there were no physicians available where they lived.

There's growing evidence that rising medical student debt is playing a role in Canada's dearth of family doctors. Back in 1997, 45 per cent of Canadian medical school graduates chose residencies in family medicine. Since then, there's been a steady decline. Alain Vanasse, a family physician and a professor of family medicine at the University of Sherbrooke in Québec, and his colleagues analyzed data from the 2007 National Physician Survey and uncovered a disturbing result: Fewer than 31 per cent of medical students choose family medicine. That figure is far below the goal of 45 per cent set nationally and a target of 50 per cent of medical school graduates in Québec.

Vanasse and colleagues found that the most important factor driving career course decisions for young doctors is medical school debt. And the heavy financial burdens are swaying more students towards specialty medicine over family care, because there is a better chance they will be able to pay it back. According to the survey, between 54 and 64 per cent of medical students agreed with the statement that if a student has a lot of financial debt, "it is better to choose a specialty as you will make more money and be able to pay off your debt faster." In fairness, the remainder of students surveyed agreed with the contrary statement: "Choose family medicine as the residency is shorter and you can start paying off your debt faster."

Either way, like a virus, student debt enters the hearts and minds and the career choices

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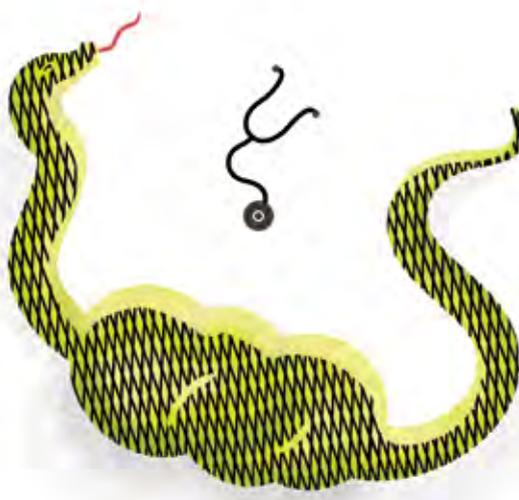
of Canada’s future doctors.

A sustainable society needs family practitioners. Study after study in recent years has concluded that primary care is at the very foundation of good medicine. For one thing, family doctors are more likely to confront a problem at its source, before it even really exists. That’s because they practice the art of prevention before the art of the cure. Your family doctor is aware of your family history, your environment, your personal and financial stresses and your relationships. Their approach to your care is all encompassing.

The orthopedic surgeon who fixes your hip may have excellent technical and diagnostic skills. She may even recommend that you lose a few kilograms before your operation. But it takes a primary care provider like your family doctor to encourage you to eliminate or modify risk factors for diseases like heart attack and stroke in the long run. Family physicians are most likely to encourage a philosophy of prevention, concerned with the entire biological, psychological and social impacts of day-to-day life that might result in illness. Not only that, but you can’t expect a specialist to know your entire medical background the way your family physician does. Historical perspective, especially when it comes to thorough and effective treatment, is not to be underestimated.

Family doctors aren’t just good for the sustainability of patients and society; they’re also good for the system itself. Family physicians deliver timely and detailed care that saves precious health care dollars.

Personally, I think we don’t celebrate primary care enough. As it is, the rate of dissatisfaction among Canadian physicians is high. A 2008 survey by Dr. Joseph Lee, a family physician in Kitchener, Ont., found 42.5 per cent



of family physicians have high stress levels, and nearly half of those surveyed said they have high levels of emotional exhaustion and depersonalization—the hallmarks of burnout.

The impact of distress among physicians goes deeper, extending into the quality of care we might receive. A survey of nearly 8,000 American surgeons published in the *Annals of Surgery* in 2010 found that nine per cent of them admitted to making a medical mistake in the operating room. After crunching the data, the authors concluded that the two strongest factors associated with errors were burnout and depression.

And so, the apparent decline in those entering family medicine as a result of rising tuition is troubling. Another point to consider is how many desirable medical school wannabes glance at the cost of tuition and simply take a pass?

I know that medical school is costly. I understand why debt-ridden provincial governments say they can’t shoulder the financial burden of subsidized medical tuition alone.

Yet they are being shortsighted if they don’t consider the broader implications of tuition that’s beyond the reach of many of our best and brightest students.

Some provinces are bucking the trend. Last year, Manitoba Premier Greg Selinger announced that medical students in that province would have their tuition fully paid for if they agreed to set up practice in parts of the province that are designated as under-served—including Winnipeg’s inner city and parts of rural Manitoba.

Earlier this year, Scott Dobson-Mitchell penned a blog at *Macleans On Campus* with the intriguing title “Should med school be free in Canada?” He asked if taking away the financial pain of med school could solve Canada’s health care crisis.

I think it’s an idea worth considering, provided students sign a contract guaranteeing they’ll work in an area that needs physicians. But why stop there? The provinces could consider paying tuition for nurse practitioners (NPs) too. In 2007, the Ontario government announced the creation of 25 NP-led clinics, a new way of delivering primary care in which the NP takes the lead, consulting with family doctors only when their patients require care that falls outside the NP’s scope of practice.

Canada made publicly funded, universally accessible health care a core value of our nation. In doing so, we decided that people of all economic demographics should have access to decent health care. It’s time we made a medical degree accessible to eager students regardless of their ability to pay. All of us have a stake in making sure that bright, passionate students like Nicole Perkes can find their place in the halls of medicine, unfettered by insurmountable student debt. 



Business: Ahead of the game

In this year's survey, a few business schools are outperforming the vast majority of sustainability slouches

With the world economy once again teetering on the brink of recession, we are strongly reminded that a new model for business as usual is in order. Whether or not companies seize the opportunity to change course is dependent in many ways on the hearts and minds of their business leaders. Visionary veterans such as the late Ray Anderson of Interface have pointed to the saving grace as a more ethical and responsible model that sees beyond profits and into a secure and sustainable future for generations to come. CK looks to our academic institutions to gauge how effectively they are training the business workforce of the future to adhere to principles of sustainability.

There is a clear leader in this year's MBA program ranking. With a top score of 94.6 per cent, York University's Schulich School of Business MBA program consistently excels across all three evaluated categories: institutional support, student-led initiatives and coursework. Some notable examples include a Responsible Business Dialogue speaker series, run out of the Canadian Business Ethics Research Network (CBERN) that focuses on "triple-bottom line" thinking. Also, the York Sustainable Enterprise Consulting (YSEC) program is a group that merges the expertise of MBA students with Environmental Studies MA students at York to advise organizations on integrating environmental and social factors into their decision-making processes. Outside of the classroom, MBA and undergraduate students are active in sustainability-related events and clubs, such as Net Impact. Schulich MBA and undergraduate programs are also among the few that require students to take an ethics course in

the context of social responsibility and sustainability in business.

Other notable performers in the MBA ranking are the John Molson School of Business at Concordia University (74.3 per cent) and the Alberta School of Business at the University of Alberta (70.9 per cent). Student-led initiatives are the core strength of these programs. Concordia students are invited to partake in the *MBA Oath*, which asks graduates to commit towards the creation of value responsibly and ethically. Students at the University of Alberta can participate in a volunteer income tax return program that aids low-income individuals. If these students are the future of responsible business, the future is looking bright.

Leading in the undergraduate business program ranking this year with a score of 75.6 per cent is the Environment and Business program at the University of Waterloo. Designed to replace the traditional business administration degree, students take unique courses such as Environmental Management Systems and Green Entrepreneurship. A strong focus on the environment and sustainability in required coursework leveraged Waterloo ahead of the rest. The Desautels Faculty of Management at McGill University also performed well in the undergraduate program ranking following closely behind with a score of 71.4 per cent.

But, for both MBA and undergraduate business programs, there is still a long way to go in terms of integrating sustainability themes and practices into the education of our future business leaders.

Despite a strong performance by the top-ranked schools, the vast majority of evaluated programs obtained a score of 50 per cent or less. So where are improvements most

needed?

For MBA and undergraduate programs, consistently low scores were observed in institutional support and coursework. Particularly, greater support and incentives for students to participate in sustainability-orientation internships and consulting programs is needed; over 50 per cent of undergraduate business and MBA programs offered no relevant internships or consulting programs. Similarly, increased institutional leadership and support for relevant case competitions is also needed, as 42 per cent of undergraduate and 53 per cent of MBA programs scored zero points in this category. A serious commitment to sustainability needs to be evident in coursework, as few business schools include sustainability-themed courses in their core curriculum; only Waterloo and Laurier MBA programs achieved a perfect score in this category, offering at least five relevant and required courses.

However, there is some indication that sustainability is moving slowly from the fringes of business education towards the core. The Master of Environment and Business program (MEB) is currently offered at the University of Waterloo, an alternative to the traditional MBA degree. Such a collaborative approach to education could be the future of sustainable business education. Also, a plethora of combined or specialized undergraduate degrees in business and environment, corporate social responsibility, and so on are now appearing in course calendars. While the movement towards a saturated approach to sustainability is slow going, these promising initiatives are branching out intelligently in search of better business. We hope the rest will follow.

Business: Best practices

A small sample of promising initiatives discovered in the Knight Schools

Survey for undergraduate business and MBA programs

EXTERNAL SPEAKERS, SEMINARS AND CONFERENCES

Concordia University: John Molson School of Business

Examples of relevant external speakers hosted at Concordia between September 2010 and August 2011:

- “Personal Autonomy and Environmental Sustainability,” presented by Luc Pelletier, chair, School of Psychology, University of Ottawa
- “Getting Green IT off the Ground: Reconciling Diverse Perspectives,” presented by Jane Webster, professor of management information systems, Queen’s School of Business, Queen’s University

INTERNSHIPS AND CONSULTING PROGRAMS

University of Waterloo: School of Environment, Enterprise and Development (SEED) Undergraduate Environment and Business Consulting Project

This is a final project for senior undergraduate Environment and Business students. It requires an eight-month client-focused engagement that includes outreach as a component of an integrated environment, business case or research study. Students have produced original videos on issues of green business, sustainable development and corporate social responsibility.

INSTITUTES AND CENTRES

University of Calgary: Haskayne School of Business

International Resource Industries and Sustainability Centre (IRIS)

The centre was created to promote inter-faculty and interdisciplinary research projects on strategic management of environmental and sustainable development issues relating to resource-based industries. The

focus is primarily on research into the management of ecologically and socially sensitive areas in Canada and the developing countries in which Canadian resource-based firms conduct operations. In addition, attention is paid to the management of global strategic issues such as climate change, habitat destruction and diversity, the development of renewable energy sources, and carbon capture and storage techniques.

STUDENT-LED INITIATIVES

University of British Columbia: Sauder School of Business

Commerce Undergraduate Society Sustainability (CUS Sustainability)

CUS Sustainability began with one student’s attempt to raise awareness about sustainable business and social equity, and turned into a positive movement within the Sauder undergraduate community. The group’s mission is to provide opportunities for Sauder students to educate themselves on what sustainability means in the context of business; motivate students to integrate sustainability into their professional and personal lives; and use the CUS as a model for how sustainability can be implemented into the operations and strategic thinking of an organization.

REQUIRED, FULLY DEDICATED COURSES

Simon Fraser University: Beedie School of Business

Business, Society and Ethics

This course reviews and synthesizes the literature on moral and ethical issues in the field of business and society, including ethical leadership and environmental concerns in business, the direction of business ethics in an age of democracy, globalization and environmental concerns, and other themes.

SPECIALIZATIONS AND CONCENTRATIONS

McGill University: Desautels School of Business

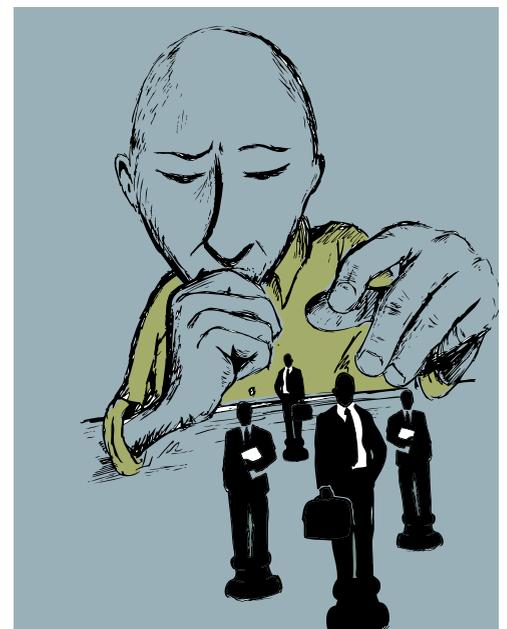
Undergraduate program, Minor in Environment

The Minor in Environment option is intended to complement the expertise that Desautels undergraduate students gain through a major or faculty program outside of the McGill School of Environment.

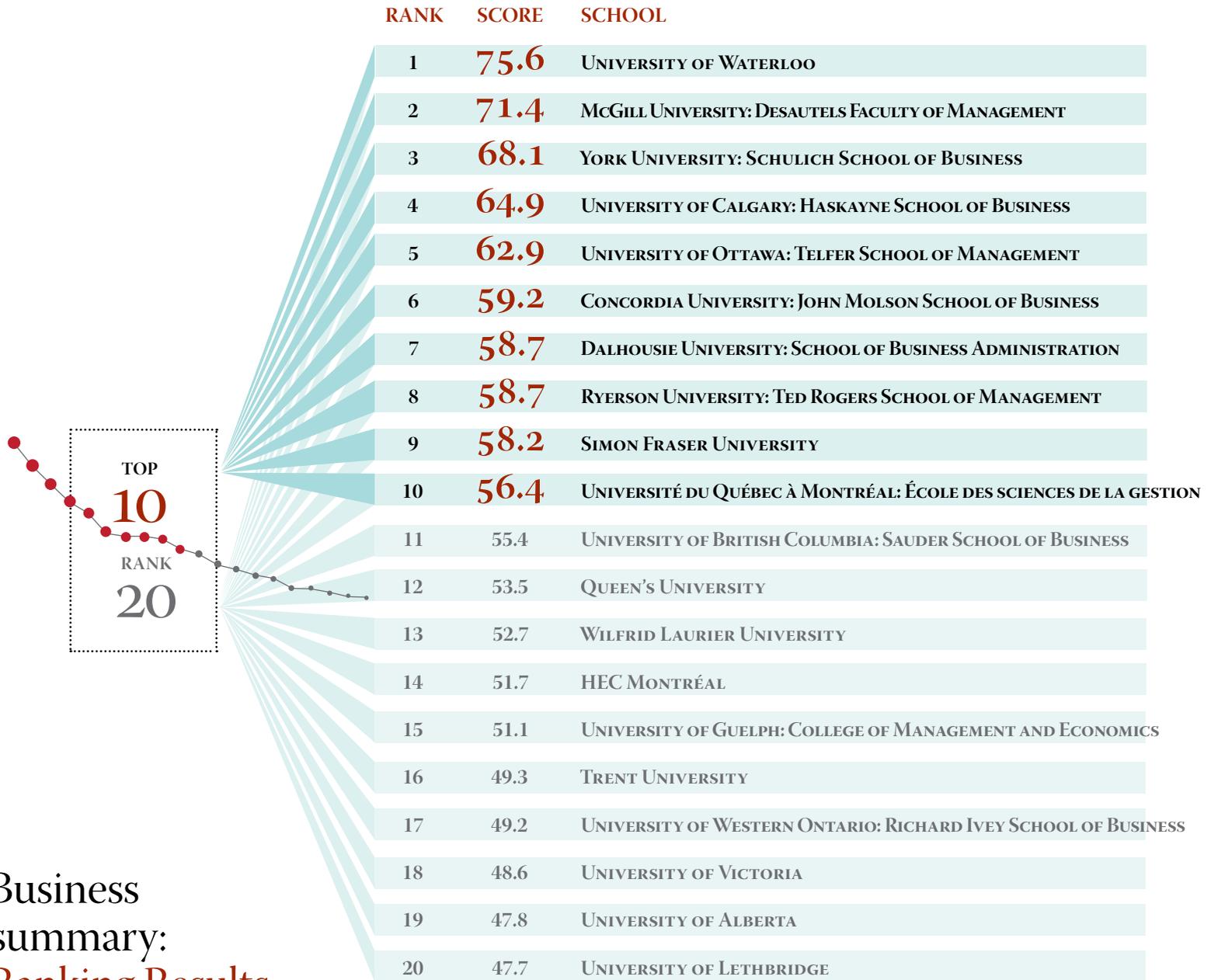
MBA PROGRAM

Concordia University: John Molson School of Business

MBA students can specialize in one of the following by taking 12 credits in the respective area: corporate governance and business ethics; business sustainability and environmental management; or community development.



Undergraduate Business Program Ranking Scores 2011



Business summary: Ranking Results and Analysis

The number of questions in Part 1, 2, and 3 of the undergraduate business survey that improved, deteriorated or did not change in comparison to the 2010 ranking with respect to the per cent of programs ranked achieving greater than zero points per question.

PART 1 INSTITUTIONAL SUPPORT	↑5	↓3	NO CHANGE –
PART 2 STUDENT-LED INITIATIVES	↑–	↓1	NO CHANGE –
PART 3 COURSE WORK	↑3	↓3	NO CHANGE –

MBA Business Program Ranking Scores 2011

SCHOOL	SCORE	RANK
YORK UNIVERSITY: SCHULICH SCHOOL OF BUSINESS	94.6	1
CONCORDIA UNIVERSITY: JOHN MOLSON SCHOOL OF BUSINESS	74.3	2
UNIVERSITY OF ALBERTA	70.9	3
UNIVERSITY OF BRITISH COLUMBIA: SAUDER SCHOOL OF BUSINESS	67.1	4
MCGILL UNIVERSITY: DESAUTELS FACULTY OF MANAGEMENT	65.8	5
UNIVERSITY OF CALGARY: HASKAYNE SCHOOL OF BUSINESS	63.8	6
UNIVERSITY OF TORONTO: ROTMAN SCHOOL OF MANAGEMENT	58.4	7
UNIVERSITY OF OTTAWA: TELFER SCHOOL OF MANAGEMENT	55.6	8
HEC MONTRÉAL	51.5	9
DALHOUSIE UNIVERSITY: SCHOOL OF BUSINESS ADMINISTRATION	48.8	10
WILFRID LAURIER UNIVERSITY	45.6	11
SIMON FRASER UNIVERSITY	42.7	12
UNIVERSITÉ DU QUÉBEC À MONTRÉAL: ÉCOLE DES SCIENCES DE LA GESTION	41.8	13
RYERSON UNIVERSITY: TED ROGERS SCHOOL OF MANAGEMENT	41.1	14
UNIVERSITY OF WATERLOO	41.0	15
UNIVERSITÉ LAVAL	34.6	16
UNIVERSITY OF MANITOBA: ASPER SCHOOL OF BUSINESS	33.2	17
CARLETON UNIVERSITY: SPROTT SCHOOL OF BUSINESS	32.3	18
UNIVERSITY OF WESTERN ONTARIO: RICHARD IVEY SCHOOL OF BUSINESS	30.6	19
SAINT MARY'S UNIVERSITY: SOBEY SCHOOL OF BUSINESS	30.2	20



Business summary: Ranking Results and Analysis

The number of questions in Part 1, 2, and 3 of the MBA business survey that improved deteriorated or did not change in comparison to the 2010 ranking with respect to the per cent of programs ranked achieving greater than zero points per question.

PART 1 INSTITUTIONAL SUPPORT	↑5	↓2	NO CHANGE -1
PART 2 STUDENT-LED INITIATIVES	↑-	↓1	NO CHANGE -
PART 3 COURSE WORK	↑1	↓5	NO CHANGE -



Law: Defending the greater good

The legal system needs a boost of environmental and social values to maintain justice in a world of growing inequality. Are Canadian universities training young lawyers accordingly?

As food, energy and water security become increasingly pressing issues, the need for laws that protect the rights of individuals and the valuable environments that support them has never been greater. The gap between privilege and poverty is increasing with a higher demand and a decreasing global supply. Because of this, the basic rights and freedoms of the global population must be advocated for and upheld, and it is up to our lawmakers and legal defenders in part to ensure this is done. Whether one chooses corporate, civil, environmental or human rights law, the values of an ethical and environmentally responsible society must be at the core of basic legal training. CK continues to assess the state of legal education in Canada with respect to the integration of environmental and social justice into the curriculum.

In this year's survey, the Juris Doctor (JD) program at the University of Toronto led the law schools ranking this year with a total score of 88.9 per cent. Its law curriculum stands out by offering the largest number of

interdisciplinary combined degrees related to sustainability: JD and environmental studies, global affairs, international relations and social work are all options for students who want to expand their academic horizons. The Faculty of Law also has many relevant endowed faculty chairs focusing on environmental law, human rights, international law and development, and so on.

Following on the heels of the University of Toronto are the Osgoode Hall Law School at York University (79.8 per cent) and the Schulich School of Law at Dalhousie University (78 per cent). Performing strongly in student-led initiatives and institutional support, Osgoode Hall has a strong social focus and is an integral part of IRIS, the university-wide Institute for Research and Innovation in Sustainability. At Dalhousie, Schulich School of Law faculty runs a weekly lecture series for the community on contemporary legal topics and has a very active student body that organizes events and clubs on everything from animal rights law to lesbian, gay, bisexual and transgender (LGBT) legal studies.

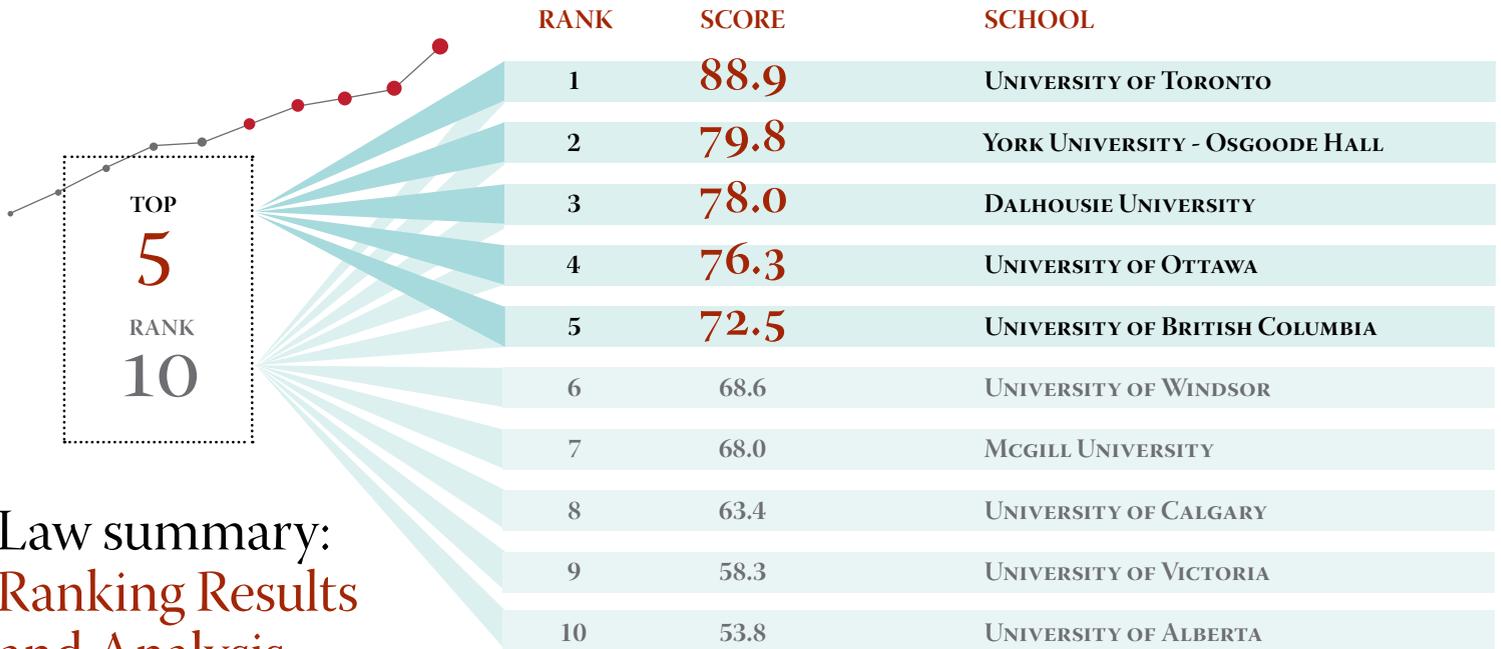
However, CK found there is much room

for improvement in instituting sustainability within legal education, noted most clearly in the curriculum offered by law programs across the board. Most require students to take a series of core courses in their first year, which commonly include professional ethics, criminal law, property law, tort law, administrative law and constitutional law; but even in upper years, students are not required to take environmental law or human rights law. Only Osgoode Hall Law School at York University requires graduates to fulfill 40 hours of public-interest, law-related work and only students in Windsor Law at the University of Windsor are required to take an access to justice course.

While it is evident that sustainability and its related themes in law have not been a priority in legal education, nearly all law schools analyzed scored perfect marks on research initiatives and student-led initiatives. So, it appears that there is a strong faculty and student interest in sustainability legal issues, but this has not yet transferred to the required curriculum.



Law Program Ranking Scores 2011



Law summary: Ranking Results and Analysis

The number of questions in Part 1, 2, and 3 of the law program survey that improved deteriorated or did not change in comparison to the 2010 ranking with respect to the per cent of programs ranked achieving greater than zero points per question.



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Law: Best practices

A small sample of best practices from top-performing schools
in the Knight Schools Survey for law degree programs

EXTERNAL SPEAKERS, SEMINARS AND CONFERENCES

University of Western Ontario

Examples of relevant external speakers hosted at Western between September 2010 and August 2011:

- “Access to Justice,” fireside chat, Supreme Court Justice Thomas Cromwell
- “Canada and Human Rights: Have we lost our way?,” presented by Alex Neve, Secretary-General, Amnesty International Canada

INSTITUTES AND CENTRES

University of Toronto: Faculty of Law Centre for the Legal Profession

The centre says it aims to “broaden and deepen our understanding of professionalism, ethics and public service, and the relationship between them.” It was set up as “a catalyst for dialogue about the capacities, judgment and actions necessary for effective lawyering, and about the idea of community leadership and public service as essential to becoming a ‘good’ lawyer.”

STUDENT-LED INITIATIVES

Dalhousie University: Schulich School of Law

Relevant and active student associations at Dalhousie include: Pro Bono Students Canada, Canadian Lawyers for International Human Rights, Dalhousie’s Aboriginal Law Students Association, Health Law Students’ Society, Queer Legal Students Association, Dalhousie Black Law Students’ Association, Student Animal Law Association of Dalhousie and Environmental Law Student Society.

REQUIRED, FULLY DEDICATED COURSES

University of Windsor: Windsor Law Access to Justice

This course examines the role of law, legal institutions and lawyers in social change relating to access to justice. It includes an introduction to the Canadian legal system, an examination of the idea of access to justice and a critical consideration of the decision-making processes and outcomes of courts, legislatures and administrative agencies.

Constitutional Law

This course is designed as a general introduction to the Canadian Constitution, with particular emphasis on the Charter of Rights. In addition, each student is required to select, in either second or third year, one course from a group of courses that give a broader perspective of the legal process and legal theory. These courses form the Legal Perspectives group of courses and include, among others: Aboriginal Justice Systems, Aboriginal Law in Society, Alternative Dispute Resolution, Civil Liberties and Feminist Legal Theory.

SPECIALIZATIONS AND CONCENTRATIONS

York University: Osgoode Hall Law School

Multiple relevant specializations are available, including intensive programs in Aboriginal Lands, Resources and Governments, Immigration and Refugee Law, and Poverty Law. 



September 20-21, 2011

Hart House, University of Toronto

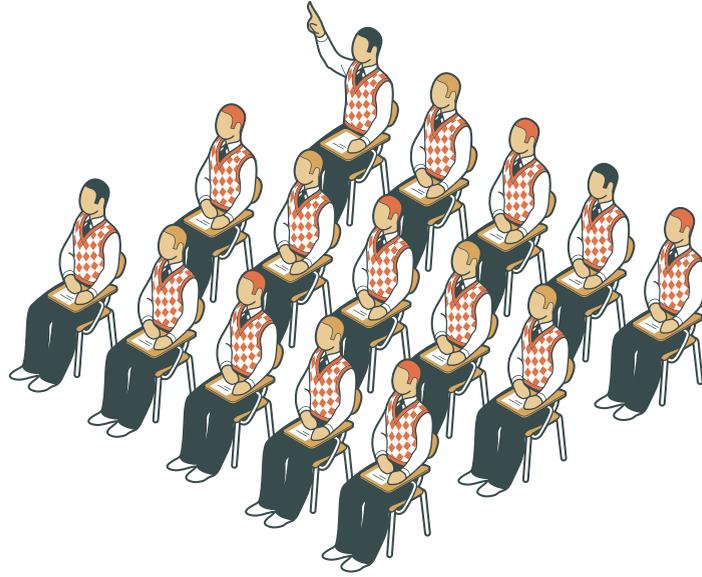
 **WATER FINANCE**

Centre for Environment
UNIVERSITY OF TORONTO

This two day program looks at current and emerging water issues within the overall context of climate change. Topics include conservation and protection policies and regulations, strategies for markets and investment, links to energy costs, ecosystem health and opportunities to invest in new technology for innovation. The program examines the ethical, political, legal and industry perspectives, to protect this valuable resource.

For more information or to register, please visit,

www.learn.environment.utoronto.ca



Teacher education: Cultivating change

One visionary institution makes significant strides in social justice and sustainability, while the vast majority of programs have their work cut out for them

Today, the most important test we are asking our educators to prepare our youth for is ironically one society hasn't yet passed. How do we overcome our differences to heal our planet and maintain social justice? As future generations face this mammoth task, their role models must be people who manage to bring issues of sustainability and justice to life. Our teachers must be compassionate and dedicated. If our teachers can educate our children to be more just, more cooperative and more resourceful than we ever were, they will not only lead the charge toward a sustainable world but also teach us a thing or two about it. How we train our teachers to do so is critical.

When it comes to sustainability and

teaching, there is a clear front-runner in the 2011 ranking. The Ontario Institute for Studies in Education (OISE) at the University of Toronto excels in every part of the ranking survey, scoring a promising 91.3 per cent and placing it more than 20 per cent above all other institutions. So what is its secret to success?

First, the teacher education program at OISE is based on seven principles, including "equity, diversity, and social Justice", which are strongly reflected institutionally. All students in the program are required to take the School and Society course, which addresses key themes like student diversity and difference and democracy, conflict, and resistance in schools. OISE is also the only school to offer an environmental and

sustainability education course, as well as a myriad of other specialized classes on everything from aboriginal perspectives on education to gender and diversity of sexualities in schooling.

The breadth and diversity of courses is surely a reflection of the strong faculty and research base that OISE has developed. With free public lectures series and institutes like the Centre for Urban Schooling, OISE rises above its peers.

And what about the rest?

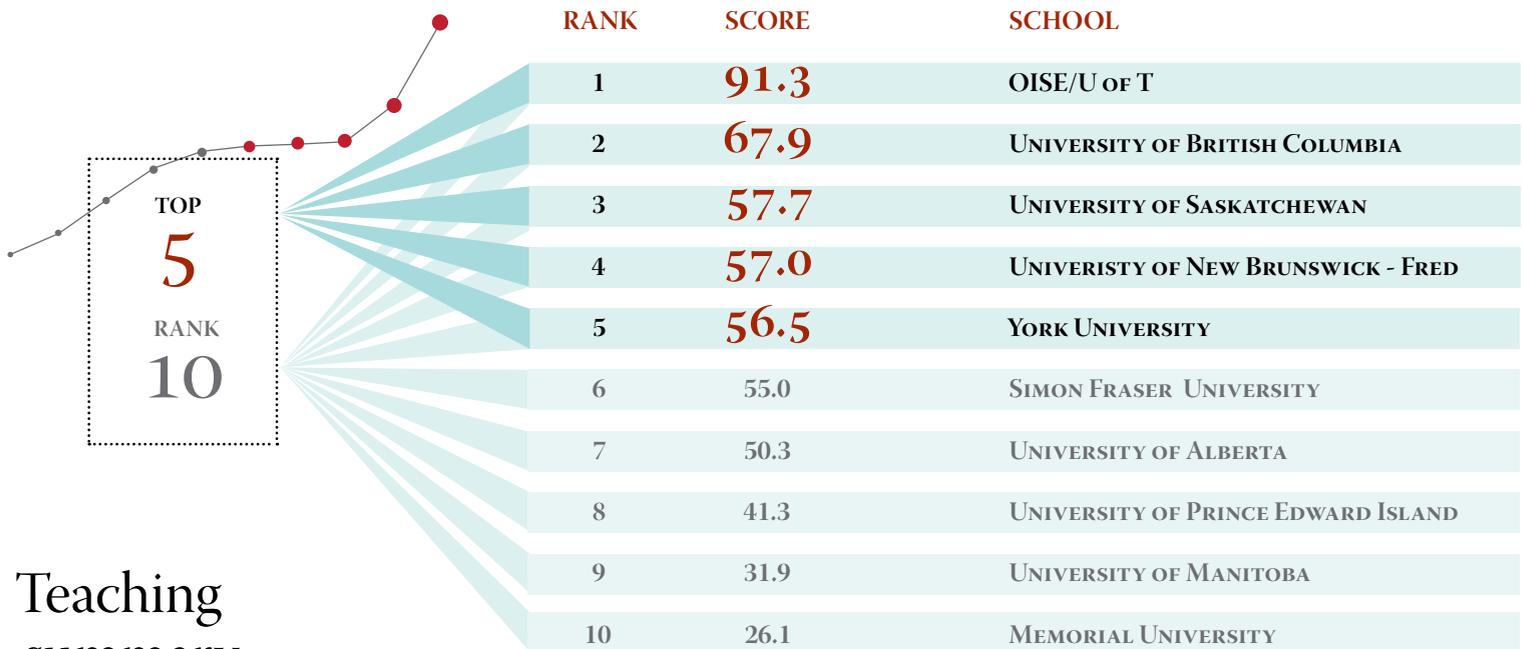
Similar to the disciplines of business and law, most teacher education programs analyzed in the ranking have at least some inclusion of ethics training, and courses on diversity and inclusive education for children with special needs are encouragingly common.

But this appears to be where most institutions draw the line, as all other sustainability-oriented courses (if offered) are electives. And, unlike other disciplines, student-led initiatives in teacher education appear to be lacking. However, the survey looks only at those initiatives directly associated with the education program; initiatives taken during placements in schools may be more significant.

It is interesting to question whether teacher education programs will evolve to incorporate concepts of social justice, environment and sustainability as OISE has done. One could hope this might become the future norm of teacher education.



Teaching Program Ranking Scores 2011



Teaching summary: Ranking Results and Analysis

The number of questions in Part 1, 2, and 3 of the teaching program survey that improved, deteriorated, or did not change in comparison to the 2010 ranking with respect to the per cent of programs ranked achieving greater than zero points per question.

PART 1 INSTITUTIONAL SUPPORT	↑ —	↓ 1	NO CHANGE — 5
PART 2 STUDENT-LED INITIATIVES	↑ 1	↓ —	NO CHANGE —
PART 3 COURSE WORK	↑ —	↓ 4	NO CHANGE — 1

Teacher education: Best practices

A small sample of promising initiatives discovered in the Knight Schools Survey for teacher education programs

EXTERNAL SPEAKERS, SEMINARS AND CONFERENCES

University of Alberta

An example of a relevant speaker series hosted by the Faculty of Education at the University of Alberta:

- “Abraham Maslow and the Blackfoot Peoples”, presented by Narcisse Blood & Ryan Heavy Head (Red Crow Community College), exploring how Abraham Maslow’s time with the Blackfoot Peoples in 1939 influenced his thinking and as a result, influenced western psychology, education and business practices.

INSTITUTES AND CENTRES

University of Toronto, OISE

The Centre for Urban Schooling

This education, research, policy and advocacy centre was established in 2005 to connect OISE to schools and communities in inner cities, committed to social justice and equity for all students. The centre works collaboratively on education projects that challenge power relations based on class, race, gender, language, sexuality, religion, ethnicity and ability in all aspects of education, both formal and informal.

OTHER PROGRAMS AND INITIATIVES

York University

The Access Initiative

York University’s Faculty of Education Access Initiative is designed to recruit, admit and support individuals who will make excellent teachers and who reflect the diversity in our society. Its admissions policies are designed to assess the potential of all candidates, in particular those who have faced systemic barriers in educational settings and in their lives. Underrepresented groups are encouraged to apply as a part of this initiative: Aboriginal (First Nations, Métis, Inuit, Status, Non-Status, Aboriginal

Ancestry), people with disabilities, racial minorities, and people whose personal education or career has been affected by the refugee experience:

REQUIRED, FULLY DEDICATED COURSES

University of Toronto, OISE

School and Society

This course introduces teacher candidates to a range of issues flowing from the complex relationship between schools and the society in which they are embedded. Key themes addressed in this component include: the variety and purposes of schooling; contemporary goals of education; student diversity and difference; democracy, conflict, and resistance in schools; family and community relationships with schools; how schools are organized; and teachers’ identities.

University of Prince Edward Island

The Inclusive Classroom

This course provides an overview of students with different learning abilities in the regular classroom, and examines the evolution of services for children with particular learning needs. The course emphasizes the skills needed to ensure that the regular classroom is inclusive and that the teacher is sensitive to all needs.

SPECIALIZATIONS AND CONCENTRATIONS

University of New Brunswick, Fredericton

The Education program at UNB offers the chance to take courses in many specialized areas of interest, while still maintaining some diversification. Specialization areas include: Aboriginal Education, Second Language Education, Art, Health, Drama, Mathematics, Music, Physical Education, Science, Social Studies, Early Childhood Education, Special Education, Technology Education, Guidance and Counselling. 🦄

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Methodology

The Knight Schools Survey is distributed to programs selected for evaluation (see selection process below). Universities are given one month to complete the survey and, if incomplete, CK used publicly available information to collect data (unless exclusion from the ranking was specifically requested). All data covers September 2010 to August 2011.

SURVEY BREAKDOWN

1. "Institutional support" considers if the faculties are doing their part to encourage sustainability through external guest speakers, orientation activities, internships and consulting programs, loan forgiveness and scholarships, student competitions, community involvement, endowed faculty chairs, institutes and centres, and faculty research.
2. "Student-led initiatives" evaluates how sustainability is fostered outside the classroom by the student body in the form of clubs, groups and events.
3. "Coursework" illuminates how and if sustainability is integrated into the curriculum of the program by looking at required and elective courses, joint degrees and degree specializations available.

ANALYSIS

Data was analyzed by CK researchers and evaluated for sustainability content. The number of points allocated, maximum points allowable for each question and weighting of each question in the final score was based on the previous year's rankings, but modified slightly in 2011 to accommodate program improvements or lack thereof in the ranking results compared with 2010. The aim is to produce a ranking that evolves with changes in education and increased expectations as sustainability theory becomes more established.

SELECTION PROCESS

1. Business: 53 business schools, 50 undergraduate degree programs (BBA or BComm) and 40 MBA programs were evaluated. All general MBA programs in Canada were analyzed (excluding E-MBA, specialized MBA, co-operative MBA or online MBA programs). Not all undergraduate business programs in Canada were included due to time and resource limitations.
2. Law: Schools were selected based on the existence of a common law program.

Eighteen schools in Canada were analyzed. The law program at Thompson Rivers University starts in fall 2011, so it will be included in next year's ranking, and the Akitsiraq Law School, run out of the University of Victoria and Nunavut Arctic College, did not receive funding in the 2010-2011 school year.

3. Teaching: 16 teachers programs were selected for inclusion, drawn from one school per province or territory based on total undergraduate school population and two schools for larger provinces (Ontario, British Columbia and Québec). Programs based in the Yukon, Northwest Territories and Nunavut could not be included due to a lack of publicly available information.
4. Medicine: The top five medical doctor programs according to number of students admitted were selected for inclusion in the preliminary investigation.

For the full methodology, including links to the surveys and full scoring, please visit corporateknights.ca/knightschools.

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Making waves

Leading research in Canadian universities is contributing to a growing tide of water innovation in this country, but a lack of government and industry support is preventing it from reaching the marketplace.

by ALANNA MITCHELL

Few of those browsing the web know that Google was created by university scientists. In fact, the Internet search giant, with market capitalization of \$193 billion and a newfound appetite for smartphones, was invented by two grad students and started life at Stanford University in California.

Across the world, universities are hotbeds of innovation. And in Canada, a growing amount of that Ivory Tower ingenuity involves a vital subject: water. Unfortunately, many of the great Canadian solutions to water issues stay locked away in labs, never making it to the market. That's happening despite the fact that the need for marketable, environmentally friendly water inventions—a.k.a. the Blue Economy—is more pressing as climate patterns change, the population increases and people all over the world strive for a higher and more water-rich standard of living.

The result, say some of those charged with bringing lab-born brainwaves to market, is

that Canada is spending as much as \$6 billion a year to fund academic scientists, but their discoveries aren't making life better, greener or bluer for Canadian citizens.

"There's no shortage of discoveries," says John Molloy, president and chief executive of PARTEQ Innovations, a Kingston, Ontario-based company set up to take inventions from Queen's University to market.

But, unlike the United States, Canada still lacks the suite of models necessary to push academic inventions into the marketplace, Molloy says.

A report from the Conference Board of Canada in June ranking 17 developed countries on innovation placed Canada near the bottom of the heap—at 14th.

The report said that while scientific output is strong and internationally respected, "Canada does not take the steps that other countries take to ensure science can be successfully commercialized and used as a source of advantage for innovative companies seeking global market share. Canadian

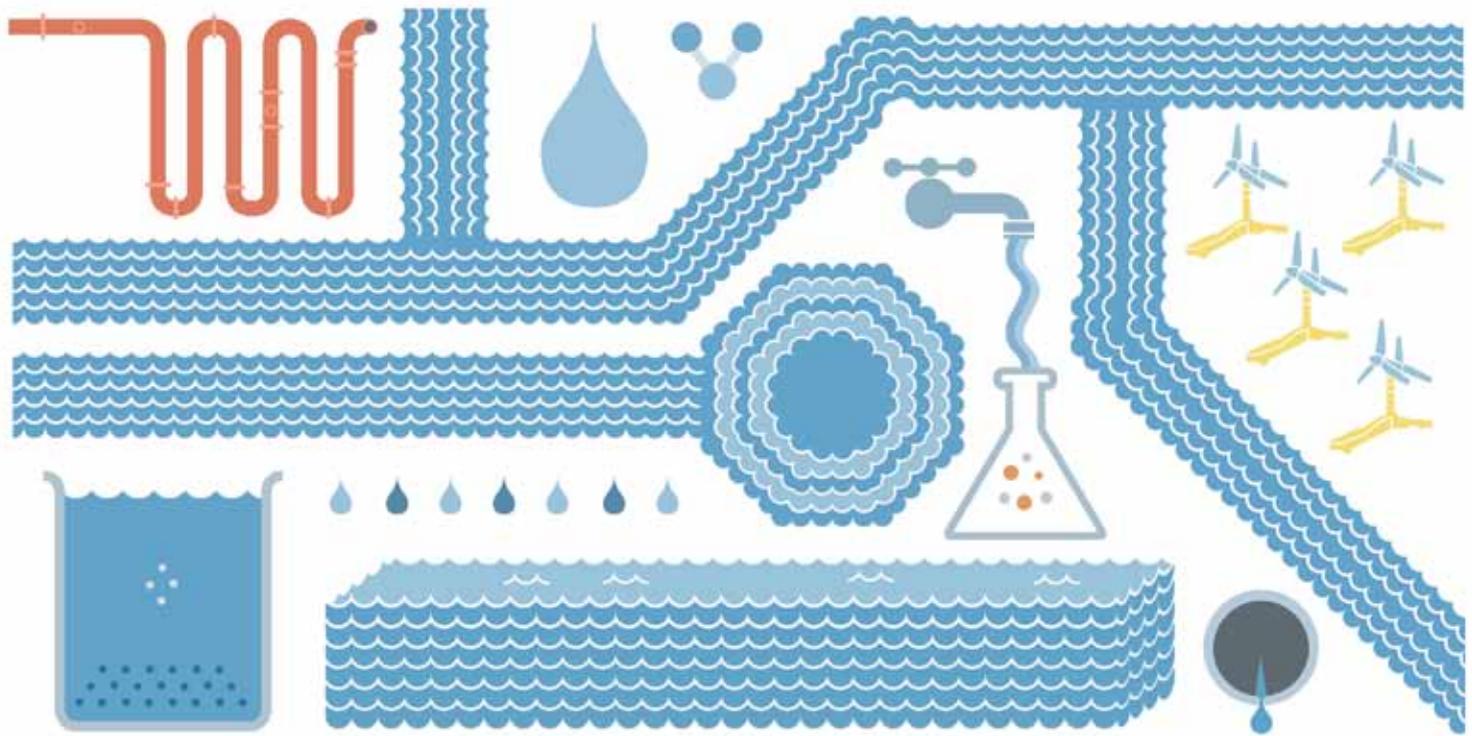
companies are thus rarely at the leading edge of new technology and too often find themselves a generation or more behind the productivity growth achieved by global industry leaders."

Not only that, but while the scientific research on water is ripe for commercialization and the need for innovation is clear, the path to the market is not straightforward, says Bernadette Conant, executive director of the Canadian Water Network in Waterloo, Ontario, which seeks to ensure that science shapes the water-management innovations that draw investments. Some of the advances that could help instead fall into a political vacuum.

"The needs are clear," says Conant. "What we lack is a single or clear client-approval process."

And, in a trend Molloy sees as dangerous, more and more universities are shying away from available market mechanisms in favour of waiting for industry to front the cash.

"I'd like to see it go the other way," he says.



An early triumph for Molloy's group is a process developed by Queen's scientists Stephen Brown and Peter Aston who figured out how to find *E.coli* and other disease-causing organisms in drinking water more quickly and reliably. They were galvanized by the Walkerton, Ontario, tragedy of May 2000 in which seven people died and thousands fell ill from the notorious bacteria.

PARTEQ, which has about a dozen industry sponsors who pay to sit at the table and help decide what gets developed, helped license the Pathogen Detection Systems technology. It was eventually sold to the French multinational corporation Veolia, and spun off into its offshoot, ENDETEC. The new system is now being launched internationally and PARTEQ and the scientist inventors stand to make royalties once the upfront development costs are paid back.

One of the key organizations set up to commercialize academic inventions from all over the country is GreenCentre Canada, also based in Kingston. Established in 2009 with

\$22 million from the federal and Ontario governments, it aims to match start-up investment money with clean, energy-efficient chemical processes—known as green chemistry. It does that both by buying licences to the technology and selling them to industry, and by creating new companies to house the innovations.

"The idea is to get it beyond: 'Gee, isn't it a great idea!'" says Rui Resendes, its executive director.

Resendes says in the two years since GreenCentre began, there's been a spike in interest and investment around the world in Canadian inventions.

"Water has become the new currency," he says.

He points to an invention by Rob Singer, a professor of chemistry at the Maritimes Centre for Green Chemistry at Saint Mary's University in Halifax, which is still at the laboratory stage but has immense potential for commercialization. GreenCentre has done a market assessment and wants to license

the invention with a consortium of industry partners.

It involves ionic liquids, meaning salts that are liquid at or below room temperature. These have unique chemical properties, Singer says, because they stay liquid instead of easily becoming gas but they also bind to metals.

That means they can grab onto metals in water but not evaporate into the atmosphere. And in turn that means they can decontaminate water of metals, keep them from polluting the atmosphere and allow the metals to be harvested for reuse. It's a blue benefit on all fronts.

Conceptually, the ionic liquids could replace toxic solvents in hydrometallurgical metal refining, suck the valuable metals out of discarded electronics for resale and even clean up tailings ponds. Singer is still trying to figure out how toxic the ionic liquids are over time and is focusing research on making them both non-toxic and biodegradable.

Perhaps the most famous recent success

story is an invention by Don Mavinic, a civil engineer at the University of British Columbia in Vancouver, who figured out how to mine phosphorus from liquid sewage. Phosphorus is a precious element, mined in only five places in the world and poised to run out in a century.

It is also crucial to feeding the global population because it stimulates plant growth, whether on land or in water. Left in wastewater, it can run into coastal waters and cause destructive algae blooms and low-oxygen zones as phytoplankton convert it to food.

Mavinic figured out how to cause a chemical reaction in liquid sewage to extract most of the phosphorus and turn it into environmentally friendly, slow-release fertilizer. The process is patented, licensed and managed out of the Vancouver company, Ostara Nutrient Recovery Technologies.

It's in use at Edmonton's Gold Bar wastewater treatment plant, in Portland, Oregon, and in Virginia and Pennsylvania, and is being tested in Europe. The fertilizer is used in horticulture and on turf, marketed as Crystal Green.

"We see ourselves as a fertilizer company," says Ahren Britton, Ostara's chief technology officer, who helped develop the idea as a grad student of Mavinic's in 2000. "We just happen to mine from wastewater instead of the ground."

Britton says the company reckons there are 200 to 300 plants in North America

that could use the system to treat sewage and as many in Europe. China and Southeast Asia are also prospects. Ostara believes it will eventually mine as much as one million tonnes of fertilizer a year, reducing the amount needed to be taken out of the ground.

Ostara, which has grown to 35 staff from just three in 2006, has won awards as a clean technology pioneer and was invited to the World Economic Forum in Davos, Switzerland, this year.

The innovations aren't only chemical, though; nor do they relate only to water quality. One of the globally significant water inventions under development in Canada is a project to harness tidal power in the Bay of Fundy. It's a collaboration among academic and government scientists and industry, including Nova Scotia-based companies Nova Scotia Power, Minas Basin Pulp and Power, and Fundy Tidal; French company Alstom and U.K. company Atlantis Resources. The Bay is considered the prime site in the world for tidal speed and height, and the tidal power would replace some of the coal-fired electricity Nova Scotia uses now.

It's one of just two massive commercial tidal power turbines being developed in the world, along with another in the Orkneys in Scotland.

A test turbine the size of a house went into the Bay's Minas Basin in November 2009 and came out 13 months later, likely failing in the first few weeks because of the ferocious flow,

says Anna Redden, a biologist with the newly launched Acadia Tidal Energy Institute and director of the Fundy Ocean Research Centre for Energy.

Now, four sets of cables are going down in the Bay so that energy from four new test devices can feed straight to transmission lines next year. Redden says there are still unknowns about the direct effects on the environment and wildlife, but she's helping design tests to figure that out. And although tidal power has gone in and out of vogue every few decades, Redden is sure it's here to stay now.

"I think we've come to the point where it's never going away," she says. "We have to harvest tidal energy."

While Redden and dozens of other academic scientists continue to piece together the complex puzzle of how to help society benefit from their water research, Conant of the Canadian Water Network has some provocative ideas about what the future will hold. Because water is integral to life and a shared commons, she posits that within a decade, patents and licences on water inventions may be passé. Instead, the new trend may be to break open the market, making patents openly accessible in the hopes that innovation will accelerate, and the Ivory Tower will be an even nimbler and more powerful driver of the Blue Economy. 

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Professional Development in Environment
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The Clean Capitalism MBA Oath

In 2009, a group of Harvard Business School graduates established the *MBA Oath*, a pledge to create value responsibly and ethically.

by JEREMY RUNNALLS



One of the professors behind the development of the *MBA Oath* at Harvard Business School, Rakesh Khurana, stated that business schools must get back to serving the public good. “The university-based business school of today is a troubled institution, one that has become unmoored from its original purpose and whose contemporary state is in many ways antithetical to the goals of professional education itself.”

CK has come up with our own *Clean Capitalism MBA Oath*, complementing the original and making some additions where we felt they were needed.

AS A BUSINESS LEADER, I RECOGNIZE:

- My purpose is to lead people and manage resources in an economic system in which prices fully incorporate social, economic and ecological costs and benefits, and all

participants are clearly aware of the consequences of their marketplace actions

- My decisions affect the well-being of individuals inside and outside of my enterprise, today and tomorrow

THEREFORE, I PROMISE THAT:

- I will refrain from corruption, unfair competition or business practices harmful to society
- I will respect the rights of the workers employed at my enterprise, oppose discrimination and exploitation, and promote workplace diversity
- I will report the performance and risks of my enterprise accurately and honestly, as disclosure is essential for good governance, efficient resource allocation and honest capitalism
- I will ensure that my enterprise pays its fair share of taxes, understanding that this is a

vital part of the social contract that business has formed with the rest of society

- I will be responsible to all stakeholders, including employees, shareholders, customers, the community in which I operate, and all those who may be affected by my actions
- I will conduct my activities in an environmentally sustainable manner, and will consider the true ecological and societal costs when making investment and operating decisions
- I will obey and uphold local and international laws wherever and with whomever I engage in commercial activities
- I will work to incorporate long-term planning into management decisions and help eliminate the influence of people in management focused on personal and short-term gains 🏰