

Out of the ivory tower

Researchers partner with the community to put knowledge into action

Mobilisation des connaissances

Les chercheurs créent des partenariats avec la population

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Putting knowledge into practice

There's growing respect for a collaborative kind of research activity that starts with a two-way exchange of information between researchers and the community

by Joey Fitzpatrick

roadkill in 1987 made ecological history in Newfoundland. There had been sightings and unconfirmed reports, dating back to 1985, of coyotes making their way across the 175 kilometres of winter pack ice that separate Newfoundland from Nova Scotia. But when a juvenile was struck by a car near Deer Lake, it was official. The coyote was in Newfoundland. And they've been coming ever since.

Larger and more aggressive than their western counterparts, these expansionist coyotes are believed to have interbred with wolves on their eastward migration, and they've become the dominant predator on the island. It was also in the late 1980s that the province's caribou herds reached a peak population of perhaps 100,000, and then began a steady decline. How much, if at all, these two ecological trends are connected is a matter of fierce debate.



A retired teacher asks a question at a Harris Centre public session on teacher stress in St. John's.

"Whether it's coincidental or causal is yet to be determined," says Tony McCue, a master's student of biology at Memorial University doing his thesis on coyote-caribou interaction. "To date there is very little known about the ecology of coyotes here on Newfoundland."

That coyotes kill caribou is beyond dispute, but other explanations for the herd's decline include climate change, as well as habitat disruption from logging roads and hydroelectric development. Species eradication touches a raw nerve in a province that witnessed the collapse of the northern cod stocks. Subsistence and recreational hunting, outfitting and tourism are all linked to the health of the caribou herds. The sale of hunting licenses alone is worth some \$1.5 million, and outfitting is a \$30-million industry.

Gary Sargent operates Bluewater Lodge and Retreat near Lewisporte in central Newfoundland, and while his business doesn't cater specifically to hunters, many of the skiers and snowmobilers who make up his winter clientele are also there hoping to catch a glimpse of the world's southernmost herd of woodland caribou.

In late November, Mr. Sargent drove to Grand Falls to take part in a workshop sponsored by the Leslie Harris Centre of Regional Policy and Development at Memorial. Held four times each year at various locations across Newfoundland and Labrador, the workshops are designed to foster communication, and possible collaboration, between Memorial researchers and the wider Newfoundland community.

"I didn't know there was anybody doing caribou research, but I was interested in what the university could bring to the table," Mr. Sargent says. "Everybody's got a theory about why the herd is under stress, but most of it is based on speculation rather than any sort of empirical evidence."

In a room with about 20 others from various backgrounds, Mr. Sargent took part in a lively breakout session on natural resources. When the session broke for coffee he found himself in conversation with Tony McCue, the Memorial graduate student – the two had never met – on the topic of, not surprisingly, coyotes and caribou. From that casual conversation, Mr. Sargent put Mr. McCue in touch with a number of guides, outfitters and others.

For Mr. McCue, developing connections with the people on the ground is vital to his research. "They have a broad local knowledge base of the system, both prior and post-coyote," he explains. "That's something I don't have, and it can be a major contribution." Mr. McCue's research, in turn, will help policy makers with crucial decisions about possible coyote culls and population control.

This two-way information exchange between academia and the community is called knowledge mobilization. It's not new, but a confluence of circumstances in recent years has put knowledge mobilization on the front burner on several Canadian campuses.

The Social Sciences and Humanities Research Council defines knowledge mobilization as "moving knowledge into active service for the broadest possible common good." That "broadest possible common good" can include addressing issues as diverse and complex as economic development, health care, immigration, the environment, business ethics, homelessness, addiction, agriculture, linguistics and bullying.

"It's not a question of providing one big solution, but contributing to solutions through knowledge, research and training," explains Gisèle Yasmeen, vicepresident, partnership development and knowledge mobilization, with SSHRC. Knowledge mobilization is sometimes called the younger sibling of technology transfer, which has been under way in earnest for more than a quartercentury. Virtually every university in Canada now has a tech transfer function devoted to patenting and licensing.

But there are important differences. Commercial tech transfer is a highly competitive field, where it's estimated that five percent of the research accounts for 95 percent of the revenue. In this environment, it's not surprising to encounter a culture of secrecy and exclusivity. Knowledge mobilization in the social sciences, by contrast, emphasizes accessibility and inclusiveness. For example, SSHRC's Open Access program makes academic publications freely available online. York University has introduced plain-language writing workshops for researchers and graduate students.

"Scientists are very good at talking to other scientists, and to students," notes David Phipps, director of the office of research services at York. "Plain language is not 'dumbing it down.' It's using accessible language to describe complex concepts."

Mobilizing knowledge can involve tapping into collective wisdom and cre-



Rob Greenwood is director of Memorial University's Harris Centre, which aims to connect researchers with the wider community.

or short stories set in the year 2020. The event was open to anyone, and while some participants were farmers or agriculture students, others had no connection to the sector. The results were intriguing, Mr. Gullacher recalls.

"It's the process itself that's important. Strategic plans tend to be developed by arguing and debating. We need to start imagining, daydreaming and writing."

ativity. Last April, the University of Saskatchewan brought together a group of 12 individuals and asked them to envision the future of agriculture in that province.

"Many of the investments that we need to make in this sector are very long term," says David Gullacher, with the Prairie Agricultural Machinery Institute. "If we're making decisions based only on today's issues and problems we could be making very poor investments."

The event was called "Agriculture 2020: What's Your Vision?" and was sponsored through SSHRC's Knowledge Impact in Society program. Participants were asked to write essays, plays, skits

"Some of it was extrapolation, but there were shreds of entirely new thinking – things that we wouldn't have anticipated began to emerge," he says. "It's the process itself that's important. Strategic plans tend to be developed by arguing and debating. We need to start imagining, daydreaming and writing."

The recognition that a large slice of the public investment in research has been under-utilized and under-supported has coincided with a new era of accountability. Taxpayers want to know what their money is supporting, and whether they're getting a fair return on the research dollar.

In 2004, SSHRC launched a pilot program called Strategic Research Clusters to build connections between researchers and the users of research. "It was to bring together – both physically and virtually – academics, policy makers and practitioners in various topics," says Dr. Yasmeen. "A lot of the challenges are around people actually getting to know each other, building those relationships and sharing information."

Two years later, SSHRC funded seven grants through the clusters program, and provided funding through other programs such as Knowledge Impact in Society and Public Outreach Grants. About seven percent of SSHRC's budget, or \$21 million, is now specifically targeted towards knowledge mobilization. "But that doesn't include a lot of what we do" that relates to knowledge mobilization, Dr. Yasmeen points out. "That doesn't include the CURAs, for example."

Launched 10 years ago, the Community-University Research Alliances were Canada's first foray into this area. A university researcher and a community interest group would form a partnership to define a question, undertake the research, and then disseminate the results. Five-year grants worth up to

\$200,000 annually were made available. SSHRC has invested \$84 million in 92 CURAs since 1998.

The Harris Centre road show

There is perhaps no better place to observe knowledge mobilization in action than to sit in one of the Harris Centre's regional workshops held across Newfoundland and Labrador. Four times each year, this troupe of talented and committed individuals sets out to bring the knowledge mobilization mountain to Muhammad.

As Newfoundland and Labrador's only university, Memorial is required by legislation to contribute to the social and economic development of the province, and the Harris Centre was launched in October 2004 to fill that role. With 17,500 full- and part-time students and more than 900 full-time faculty, Memorial is the largest university east of Montreal and home to a vast body of ground-breaking research. Named after a former Memorial president, Leslie Harris, the centre serves to connect those researchers with the wider community.

"You don't have to go through us to connect with the university – we're

not here to be a bottleneck," says Harris Centre director Rob Greenwood. "But if you don't know who to turn to, then we're the navigator-broker-facilitator. We're expected to reach out, to connect and contribute."

About 75 people from the Grand Falls area are taking part in the day-long meeting in late November. From Memorial, there's a team of researchers, as well as the dean of

This synergy in the room may look spontaneous, but creating an effective dialogue among diverse individuals is not something that happens by accident, explains David Yetman, manager of knowledge mobilization with the Harris Centre.

"In any dialogue, there's something called an 'invisible architecture' that's not readily apparent. As the intermediary, we have to address this beforehand

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medicine and directors of rural medicine and applied health research.

Three simultaneous breakout sessions – on economic development, rural health, and natural resources – are under way, and they're tackling the most pressing issues in rural Newfoundland, from access to health care to the out-migration of young people. The patter is crisp and lively, with one idea sparking another.

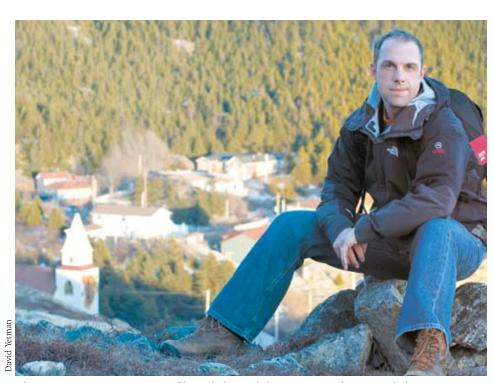
- who are the people you are bringing into the room? What is their background? What's their mandate? Are there 'small-p' politics involved? Are there any personal feuds?"

There's no panel or head table, and nobody is addressed as "Dr." Everyone's point of view is given equal weight. Reporters are allowed to observe, but not to record. This is both to encourage some participants who might be intimidated by cameras or recording devices, and to discourage others who may be inclined to grandstand.

"Everybody can express their point of view, but it has to focus on some coherent action," Mr. Yetman says. "We don't want a rehash of old issues."

By the end of the day there's a list with 42 ideas for potential projects. Mr. Yetman planned to make a follow-up visit to Grand Falls a few months later to meet with a local working group and begin whittling down the list. In some cases there may already be research available or under way, either at Memorial or elsewhere. Other projects may simply not be feasible for Memorial, or better suited for a private consultant.

"When I go back, we talk about what's realistic and what's doable," Mr. Yetman says. "We'll then circulate the project description sheet around to find faculty, students and staff who are interested in working on the project."



The Harris Centre's manager of knowledge mobilization, David Yetman, helps organize workshops at various locations across Newfoundland and Labrador each year.

Knowledge produced in a local context, of course, can have a wider application. Useful knowledge, when mobilized, should be able to move freely across borders and among jurisdictions. A policy maker in Toronto thinking about aboriginal transitional housing should be able to get as much information as possible, from as many sources as possible, to inform her decision making.

Research Impact is a partnership between York University and the University of Victoria, also funded by SSHRC. It's a prototype for a common database that will allow that policymaker to tap into relevant research anywhere in the country.

"Up until now there's been no tool to do this," notes Dr. Phipps, York's research services director. "She would have to search university by university. That's why most partnerships have been local. It's not that it can't be done across distance; people just don't know where to go."

The simple determination to make a difference is a large part of what's driving the current interest in knowledge mobilization, says Richard Keeler, associate vice-president, research, at the University of Victoria. "When I ask undergraduate students why they came to university, a large proportion of them say they want to learn something that will allow them to help society," Dr. Keeler says. "That's a powerful force among young adults."

For UVic and York, knowledge mobilization projects are not usually tied to economic development, as they tend to be in Newfoundland. UVic has concentrated on health and society, working with the Vancouver Island Health Authority to design research projects to address questions that the health authority couldn't answer with existing research. York University for its part focuses on inner-city issues but also works with communities as diverse as a First Nations reserve and farm communities in the spread-out York Region north of Toronto.

The field of knowledge mobilization is now itself the subject of research, as people try to assess the impact of evidence-informed decision making. Among the world leaders in this endeavour is a group based at the University of Edinburgh in Scotland with the ungainly name of Research Unit for Research Utilisation. (Its acronym RURU is the Maori nickname for the morepork, the only surviving native owl of New Zealand. According to Maori mythology, the bird acts as a messenger for the gods.)

Last year the RURU published Using Evidence: How Research Can Inform Public Services, an assessment of the current state of knowledge mobilization, its successes and failures. Dr. Phipps says that while Using Evidence is unlikely to become a bestseller with the general public, for KM policy wonks it's a true page-turner. And much of it validates the Canadian efforts.

"What's interesting is how the theory produced by these scholars lines up with the practice that we're developing in Canada," says Dr. Phipps. "There is now literature to support what we've been doing by gut instinct." AU-UA

The Harris Centre is hosting an international conference, "Knowledge in Motion 2008," that will explore how higher education institutions mobilize knowledge to affect regional development. It takes place Oct. 16-18 in St. John's.

But is it really research?

Academic researchers have long lived by the credo: Publish or perish. Having your research published in peer-reviewed journals is a prerequisite for any professor hoping to move up the career ladder.

But a strict interpretation of what constitutes research is not always a neat fit with the research granting councils' support of evolving fields like knowledge mobilization, says Alan MacEachern, an environmental history professor at the University of Western Ontario (and a regular columnist with *University Affairs*). In some cases, scholarly traditions may work against the spirit of collaborative research at the heart of knowledge mobilization.

Dr. MacEachern is a big believer in knowledge mobilization, and indeed was the recipient of a Strategic Knowledge Clusters grant from the Social Sciences and Humanities Research Council. The grant, for \$2.08 million over seven years to him and seven other researchers, was to develop NiCHE, the Network in Canadian History and Environment.

"With most research grants," says Dr. MacEachern, "it's clear — you do the research, you write it up. And how often and where you write things up becomes a measurement of your research productivity."

But grants for knowledge mobilization are not meant to fund research per se, but rather the *before* and *after* components. The money enables researchers to come together beforehand with each other and with the ultimate users of the research — NiCHE has 26 partner organizations — and to disseminate the results afterwards.

"If the NiCHE grant results in a whole lot of products with my name on them, that in itself suggests that I've failed. What we should accomplish is 10 new projects, under the direction of different researchers, none of them with my name on them. *That* says I've helped mobilize the network."

Universities are broadening their conception of meaningful publishing outputs: the new collective agreement at Western, for example, allows that non-peer-reviewed material, such as a report for CIDA, could be given weight for promotion and tenure purposes, if the peer-review committee agrees.

"But the focus remains on publications with one's name attached," says
Dr. MacEachern. "Until that changes, researchers may be discouraged from taking
the lead in knowledge mobilization."



There's growing interest in the role of the university as a tool for regional development, but the impact is hard to measure, warns expert Mario Polèse

by Marie Lambert-Chan

he expression "knowledge mobilization" has been the talk of the town lately among researchers and funding agencies. And yet, this concept – in which knowledge stemming from university research is transformed into concrete actions that serve the interests of society – is far from new. "Governments and universities have always looked for ways to bridge the gap between academics and the 'real world," observes Mario Polèse, a professor of international renown at the Centre for Urbanization, Culture and Society at the Institut national de la recherche scientifique in Montreal.

Whether researchers are interested in knowledge mobilization or networking with the broader community, they need to have their finger on the pulse of society and its needs, explains Dr. Polèse. "We end up with our heads in the clouds if our work is limited to cold statistics, which play an important role but are not as nuanced as the realities on the ground."

as instruments for regional economic potential, is highly complex and difficult to define.

Twenty-nine years later, he remains steadfast in his conclusion: "The effects of the presence of a university and its researchers in a region depend on the characteristics of the institution, the territory and the population. Each case is unique."

"We have to stop thinking that a demographic slump will automatically impoverish a region and that, inversely, economic development strategies will stop this decline. It's simply not true."

If there is a researcher out there who is aware of this, it is Mario Polèse. An expert in the territorial dynamics of economic activities, regional economic development policy and big city economies, he has been criss-crossing the country to feed his analyses. He's lost count of the number of projects and studies he has conducted for the Canadian and Quebec governments, various community groups, the network of Sociétés d'aide au développement des collectivités du Québec, the Atlantic Canada Opportunities Agency, the World Bank, the Inter-American Development Bank, and others.

While knowledge mobilization is as important to the interests of society as it is to researchers, its scope is difficult to grasp, particularly in outlying regions. Dr. Polèse has studied the impact of universities on regional economic development for a long time. In July 1979, he published an exploratory study on the subject, in which he stressed that the impact of universities,

Examples to illustrate his point abound. Located in northern Finland, about 150 kilometres from the Arctic Circle, the town of Oulu should be in decline, in keeping with the surrounding towns that have fallen victim to the rural exodus. Instead, it has become one of the country's leading technological poles thanks to its university, Oulun Yliopisto.

"It's an exceptional case," says
Dr. Polèse. "Its peripheral location and
climate should have been a ball and
chain for Oulu. But Finland's second
largest 'full-scale' university was
founded there in the 20th century.
'Full-scale' means that it has a faculty of
engineering and a faculty of medicine."

According to Dr. Polèse, a full-scale university can hold back, even turn around, the decline of a region. But he warns that this is not the norm, far from it. The characteristics of a particular region play a vital role. Sherbrooke, for example, enjoys robust development thanks to its many assets, including

proximity to Montreal and the U.S. border – an ideal location for industry. The influence of Université de Sherbrooke, a full-scale university, only serves to bolster the success of the city and its surrounding region.

It's a whole other story for the regional universities of the Université du Québec network in Chicoutimi, Rimouski and Abitibi-Témiscamingue. "With all due respect, these institutions are small universities that specialize in the humanities and social sciences. None of them has a faculty of medicine or engineering. Of course, the presence of a regional university is a good thing, but it's not enough to drive the development of these regions, which are becoming more and more peripheral in a continental context. The situation is serious."

But fatalism is not Mario Polèse's style. He is convinced that these regions will not die out even though their populations will shrink – a reality that authorities will have to grapple with. "We have to stop thinking that a demographic slump will automatically impoverish a region and that, inversely, economic development strategies will stop this decline. It's simply not true."

This is the argument Dr. Polèse put forward with Richard Shearmur in a study published in the journal *Papers in Regional Science* in March 2006, entitled "Why some regions will decline: A Canadian case study with thoughts on local development strategies." Dr. Polèse argues that these regions must devise development strategies based on their lower population levels.

"Some years ago, I attended a seminar in northern Ontario where things were really going badly. I was sitting beside a local development officer for Thunder Bay, who told me that the population was estimated at 120,000, but that in about 40 years, it would drop to 80,000. Their goal was to create a solid

economic base that would ensure a good level of income, employment and quality of life for those 80,000 residents."

Other regions must adopt the same attitude, "since we cannot change their geographic location or reverse their demographic decline," explains Dr. Polèse. This new way of thinking is all the more crucial given that universities are sometimes of no help, even with the best intentions in the world.

This is the case in Cape Breton, Nova Scotia, which is "a disaster, especially around Sydney," according to Dr. Polèse. "This is a cold remote region with an economy based on coal mining. As we know, mining regions have always had difficulty reinventing themselves. The result it that young people want to make their lives elsewhere." Meanwhile the University of Cape Breton can only do so much, he argues. "The university is doing incredible work with young people, but they are training people who intend to leave. I interviewed several students on the campus and they all planned to ship out after they graduate."

The effectiveness of the support a university provides to its region is therefore a function of a particular economic climate, as is the case of the Leslie Harris Centre of Regional Policy and Development at Memorial University. Its objective is to spur Newfoundland and Labrador's social and economic development. According to Dr. Polèse, knowledge mobilization has found fertile ground there. The success of a group like the Harris Centre rides on the people who work there and the context in which it operates. "It must be well connected to the political powers – the consumer of research-based knowledge - and be able to count on both intellectual and entrepreneurial leadership."

Dr. Polèse thinks that Rob Greenwood, the director of the Harris Centre, is leadership personified. "Behind an

organization like the Harris Centre, there are always one of two people who are much like missionaries and who have the personal ability to 'mobilize' and convince academics, business people, community groups and politicians to work together. This is what we call knowledge mobilization. And it's no easy task. You have to have the kind of faith that Rob Greenwood has to succeed."

Based on various examples, Dr. Polèse is convinced that, with a few exceptions, universities generally play a marginal but positive role in the social and economic development of the regions. Their mere physical presence constitutes an important symbol in the regional psyche. "In an era that values the knowledge economy, universities bestow a certain prestige on a region, much like the church once did. Without

a university, a region feels a bit like an orphan without a true sense of identity," says Dr. Polèse.

He believes the best way for universities to put wind in the sails of the regions is by remaining true to their original mission: training students and conducting research. If they can do these two things well, knowledge mobilization will be the ripple effect. But he warns them not to put the horse before the cart. "Universities should not function like motors for economic development. This is what they may become one day, when community organizations and government call on the expertise of their researchers. But that role must accrue to them through their mission to teach and do research, and not the other way around," says Dr. Polèse. AU•UA

