

Important scientific knowledge is getting lost in translation

BY SHARI GRAYDON, SPECIAL TO THE SUN AUGUST 15, 2009

Like millions of high-functioning, fully employed Canadians, I'm illiterate -- scientifically, that is.

Excused from Biology 10 after having demonstrated in Biology 8 and 9 my inability to retain the contents of my stomach during dissection classes, I stumbled through Chemistry 11. My taciturn teacher, Mr. Philips, may well have been a gifted scientist, but he had neither the capacity nor the patience to explain to others concepts that he was born understanding.

Fortunately, my poor grasp of the hard sciences hasn't prevented me from getting work in other fields, and the fact that most people share my plight has actually given me a career.

But as the environment declines, toxic chemicals multiply, and food- and animal-borne illnesses increase, I'm increasingly aware of the limitations imposed by my ignorance. So I deeply appreciate journalists who are able to translate scientific information relevant to the things I use and eat every day into accessible prose that I can grasp.

And now a group of distinguished researchers, business leaders and senior public servants have flagged this particular form of "knowledge translation" as being critical to our economic future.

Earlier this year, the Public Policy Forum convened a high-level discussion about how to transform Canada into an innovation champion.

Recently it made available online the report that resulted from the meeting -- Innovation Nation: Building a Culture and Practice of Innovation in Canada -- which called for, among other things, better public understanding about the importance of scientific innovation to our collective future.

In particular, the report stressed, "Researchers must take it upon themselves to educate non-specialists about their research in a meaningful and accessible way, and the media have an important role in conveying science stories to the broader public."

The experts assembled by the PPF noted that, far from being alone in our ignorance, scientifically challenged members of the public like me are regrettably joined by many in government and business who also chronically underestimate the importance of science to our individual and collective well-being.

More seriously, they said, our collective failure on this front is holding Canada back from realizing its potential for scientific and technological innovation.

Reading the PPF report on the same day that former president of Carleton University Richard Van Loon made an impassioned case ("Consider what Nortel has done for Ottawa, and Canada," July 30), for keeping Nortel's assets in Canada, was instructive.

It made me wonder why I'm only grasping the potential consequences of failing to do so now, when it may be too late.

What's at stake is our ability to remain competitive in a world market; sustain our quality of life and environment; and embrace necessary change. And coming as it does at a time of unprecedented economic and environmental challenge, this assessment is a damning one.

Although the news media were faulted for giving science-focused stories short-shrift and assuming that

Canadians aren't interested, the report emphasized the role that researchers and scholars themselves must play in bridging the divide.

Many scientists, however, share my old chemistry teacher's inability to find language that can at one and the same time represent the complexities of their work and research, and still be simple enough to convey the significance of the issues to ordinary people.

I've often witnessed this. Producing a 13-part TV show about the social impacts of media in the 1990s, I had the pleasure of interviewing dozens of fascinating scholars.

Some of them described their work in lively, accessible and engaging ways.

Others, however, spoke in 75-word sentences full of obscure academic language.

Although they were describing social science, not hard science, their inability to make the leap from theoretical analysis to people's every day lives ended up consigning most, and sometimes all, of their important observations to the cutting room floor. As a result, my colleagues and I were forced to come up with our own ways of including their insights -- some of which no doubt compromised the integrity of the points they were making.

On the other hand, the inability of many specialists to explain their issues in accessible ways continues to help me pay my bills. As a writer -- of books, articles, websites and speeches -- I've had countless opportunities to translate specialized information into language that made sense to readers, viewers and listeners who weren't experts in the relevant fields.

But the principles involved are much bigger than my ability to put food on my table. And the need for more and better knowledge translation -- by researchers, by the media, and by communications specialists who sometimes help connect the two -- has never been greater.

Maybe there's some synchronicity in the fact that the PPF's call comes as eroding advertising revenues are rendering news-gathering organizations resource-challenged. What if researchers became committed to abandoning technical jargon and finding ways to more clearly explain the real-life implications of their work at precisely the same time as news media became more open to moving beyond the usual suspects in seeking analysis of the issues that confront us?

Both would benefit in the process of helping citizens to better understand their world.

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