The case of the accidental knowledge broker

Dr. Vicky Ward

In 2007 I embarked on a project which was designed to build a better understanding of the knowledge mobilisation process. Although there are lots of models and frameworks which depict knowledge mobilisation (linear models, cyclical models, complex system models) few of these have emerged from or been tested in real-world settings. The difference with our project was that this was precisely what we aimed to do.

In trying to investigate how knowledge mobilisation unfolds in the real world, in real time, we needed to set some boundaries around what we were investigating. We also knew that we would potentially need to facilitate the process in some way. The solution we hatched was ‘knowledge brokering’. A knowledge broker, we reasoned, would give us something specific to watch, would help us to gain access to settings where knowledge mobilisation was happening and would act as a catalyst for that process – speeding it up to fit in with the timescale of our project. The plan was to employ a knowledge broker who would be able to work with teams in a local mental health organisation and from whom we would be able to collect data about the knowledge mobilisation process (we never intended to assess the ‘effectiveness’ of knowledge brokering). Little did I know that this knowledge broker was to be me...

As the project researcher, my role included identifying and recruiting teams who wanted to use evidence in planning or evaluating mental health services. Because we wanted a good deal of buy-in from these teams I did this by ‘touting our wares’ around the organisation, looking for people who wanted to join in. I began by attending some high-level meetings to talk about the project and then began to meet with teams who were interested in helping with the research. Quite soon we began to realise that the idea of employing a separate knowledge broker to work with these teams was both unfeasible and unnecessary. After all, I had already built good links with these teams, positive relationships were developing and the teams had begun to believe that I was willing (and able) to work with them to help them achieve their goals, rather than single-mindedly pursuing some academic research agenda. So it was settled – I would carry on doing what I had started and become the knowledge broker working with these three teams.

Personally, I found this idea extremely challenging. I had read that knowledge brokers needed to be ‘experts’ both in the academic literature/knowledge which they were bringing to bear on a particular
problem and in the real-world setting for that problem. In my case, this meant that I should be an expert in mental health research and mental health practice. The problem was, I was neither, since my training and early career had all been conducted in the area of music education! However, I soon found that not being an expert seemed to facilitate rather than hinder the knowledge mobilisation process. For instance, by being ‘constructively clueless’ I could help the teams clarify and articulate the problem they wanted to address, discuss their previous knowledge, experience and assumptions and consider the types of knowledge they needed and trusted and how this was likely to be used. The potential downside was that sometimes my input was not recognised as being legitimate, but this seemed to be more of a problem with senior managers than with the teams I was directly working with.

Having learned my lesson about being an ‘expert’, I proceeded to learn some other lessons about knowledge brokering and knowledge mobilisation. First, I found that knowledge mobilisation was hampered when knowledge brokering was seen as a ‘knowledge management’ role which was only performed by me. I saw that when team member’s emphasis was purely on getting me to find, package and disseminate ‘evidence’ on their behalf their problem-solving became fragmented, alternative viewpoints were not understood and evidence was used to support a pre-determined course of action. Second, I found that knowledge mobilisation was facilitated when knowledge brokering was owned and participated in by the team members and when it was shaped by their day to day activities and tasks. I saw that when this happened, it enabled different views of the problem to emerge and the team uncovered varying types of knowledge (both ‘academic’ and experiential) which could be used in different ways.

Following on from this project, I am now focusing on applying the lessons I have learned to other settings. For instance, learning that knowledge brokers do not need to be experts has given me the confidence use my knowledge brokering skills in a range of different settings. Learning that knowledge mobilisation and knowledge brokering are complex, shared processes has also helped me to relinquish ownership and embrace more of a facilitation role. But perhaps most importantly, learning how the knowledge mobilisation process unfolds has given me a template for ensuring that my future research projects have the capacity to make an impact on the real world.
Knowledge Broker Stories: From Science to Science Communication to Knowledge Brokering

Dr. Alex Bielak

Even while doing my Ph.D. at the University of Waterloo (UW), I realized I wasn’t cut out to be an academic. Despite my great respect for scientists and the scientific process, the complexities of multivariate statistics and the interminable nature of the peer-review publication process ultimately tipped the balance for me in terms of pursuing other career opportunities.

Making connections, getting things done, often with or by partners, and, ultimately, seeing my work as practical and useful to others was what turned my crank. Since graduating, my career has been built more on my communication and organizational skills than on my understanding of the migrations of Atlantic salmon.

I’ll admit I was slow to characterize what I did as knowledge translation or brokering (KT/KB). So how did a “salmon biologist gone wrong” land at the sharp end of KT/KB in the federal government Science and Technology community?

My career’s been more meander than a defined path. Since graduating I’ve never actually formally competed for and won a position: doors opened, sometimes in the most unlikely of circumstances, and I happily walked through.

From UW I joined an NGO, unsurprisingly one related to salmon conservation. There I headed the publications arm and served as the Atlantic Salmon Federation’s Executive Director, Canada - my first official foray into communications.

Five years on, I was asked to join the federal Department of Fisheries and Oceans to lead a disparate science group that did not “fit” well in the traditional fish-counting science structure. Consequently I had to hone my ability to “sell” what we did. I wrote prolifically, both in the peer-reviewed literature and in various other media. Day to day I managed research and operations, but science communication became a vocation.

A two-month detour for a liver transplant, and an unfortunate series of circumstances in the life of a colleague, meant that I was in the right time and place to take on a two-year interchange assignment as Director of Recreational Fisheries for the Province of New Brunswick. There, the ultimate challenge was getting science to senior officials and political masters in a timely, polite, engaging, yet firm manner. Speaking truth to power.

My assignment over, I re-joined the Feds, this time in Environment Canada (EC), once again leading a diverse group of researchers including some wonderful “entrepreneurs.” This time, explaining the needs of the
Division to administrators proved a significant challenge, all the while continuing to build networks and promote the work of the unit more broadly.

My by-now standard “four or so years in a job” were up, and I was considering a senior position with a university. I asked someone for a reference and instead was persuaded to come to work for his organization. And so, serendipitously, I found myself in my first bona fide “science communications” job as Director of Science Liaison Branch with EC’s National Water Research Institute (NWRI).

I found I was pulling it all together: forming the unit, including hiring someone to run a series of national science-policy workshops, dealing with media and other enquiries, developing an internal newsletter, and revamping the NWRI website. I got heavily involved in the Canadian Science Writers’ Association, forged new networks, and eventually became a board member.

A major transformation in Environment Canada in 2006 included formation of a Science and Technology Branch. The new Assistant Deputy Minister, who came from outside EC and was part of one of those networks I’d been involved with, was aware of our work and thought highly enough of it that my group was somersaulted, literally overnight, into a more centralized role to cover the gamut of EC science activity for the new Branch.

In a fit of self-preservation, or possibly self-immolation, I accepted the role of Acting Director General, forming a new Directorate that included, surprise, surprise – several groups that had key functions, but were, like my own group, outliers among larger science-delivery Directorates.

Over the course of the following year I helped stabilize things in the new Directorate and used my new position to advance some science-policy linking initiatives close to my heart. I was also fortunate enough to be selected for the inaugural Science Communications Residency in Banff.

A two-week master class in science communications, this experience was a transformational micro-sabbatical. I was not a science communicator in the generally accepted sense: delving into the literature (with a big tip of the hat to the health field), and working with new collaborators, I came to better understand the nature of my group’s work.

What we did was very different from what I came to define in a 2008(1) book chapter as Big-C Corporate Communication. Our work was little-c S&T communication. It was, in fact, knowledge translation and brokering.

I stopped the grinding travel to and from Ottawa and elsewhere, and returned to my substantive position as Director of S&T Liaison. There, my unit has continued to build a series of KT/KB tools and approaches that are serving EC well and bringing demands from other federal departments and agencies to share and build on our experiences.

In October 2009, we hosted a federal Interdepartmental Dialogue on KT and KB in Burlington, Ontario, where a number of ideas were supported by the collective group (over 40 participants from 15 federal
departments and agencies). These included a need to address challenges for HR classification of KT/KB jobs, build a KT/KB toolbox for federal departments, and the concept of a first-ever International KT and KB Conference and Community of Practice. Reaching out from there, we have discovered others with common interests, including, of course this site, Research Impact, and the KTECOP.

Needless to say, my current work is very much a team effort and I have been blessed to have been working with Leah Brannen and Karl Schaefer, my two Section Heads, for almost a decade. Staff turnover has generally been low and along the way we’ve collectively done some good, learnt from many challenges, published in the field, and had some fun.

You can get an overview of our activities via our EC S&T Expert (one of the tools we’ve built) profiles (Alex – Karl – Leah – Jaime – Michael – Shannon – Courtney – Julie – Kristin – Scott – Janet), and also access a Canada Public Service eMagazine feature on our work.

I fell into the field of knowledge translation without warning. In 2001, I accepted responsibility and leadership for a provincial project that, ostensibly, involved training practitioners in child and youth mental health organizations to use a standardized outcome measure that would enable them to measure functional improvements in their clients and to manage treatment change. Use of the tool was mandated by the province, and we were tasked with ramping up 120 provider organizations; number of practitioners – unknown! This, in itself, was a large undertaking. In retrospect, there were many things I didn’t know about my assignment when I started. Not the least of which was the term “knowledge translation”.

Training practitioners to learn a new skill is an educational activity, or so I thought at the time. One develops a training workshop and makes it available to the target audience. Knowledge is provided orally, through didactic instruction and discussion. Manuals and other written documentation support learning, and hands-on instruction is provided in how to master the new practice; in this case, how to score, interpret, and use the outcome tool. A standard is set to measure mastery of the material, and then training is over. Or is it?

It was probably in the third year of this outcome initiative that I realized the following:

1. Effective training is not a one-off endeavour,
2. training is only the first component of practice change; implementation and adoption must follow,
3. many factors influence the change process and need to be addressed, and
4. people don’t want to change – this last point is a real sticker!

Practitioners we had trained earlier came back requesting refresher training, either because they hadn’t actually used their new skills when they were first trained, and/or because they had experienced significant staff turnover since their original training. Questions buzzed around me and my team:

_Why weren’t people using what they’d learned?_

_Why didn’t they see the value of this new skill for their practice and for the kids?_
How could we distribute training expertise and ensure that new staff were trained on-site?

Why did some organizations embrace the new practice while others waxed and waned or merely blocked us out?

How could we share the knowledge and enthusiasm of the early adopters with those who were not so keen to change?

It was about then, as we crested the mountain of our training labours, that we glimpsed the chain of mountains extending beyond. Oh dear.

Click went the proverbial light bulb! I was now aware that the assignment was a wee bit more complex than originally envisioned. The task was not simply training for a new skill. The task was to enable practice change in thousands of practitioners across the province. Like most academics, I went to the books and started to read. Surely someone has done this before! I was quickly immersed in multiple disciplines – business, education, health, and psychology – where I learned that practice change was an emerging field of study, and that while many were beginning to recognize the need for successful ways of changing practice and bringing evidence to the real world, very few had attempted this feat, relatively few had studied it empirically, and fewer still had attempted to change practitioner behaviour on the scale that we were.

My first inroad into applying what we would now refer to as a knowledge translation strategy came from the work of Jean Lave and Etienne Wenger in communities of practice (1991). This tried and true approach was proving useful in education, NGOs, and business in facilitating knowledge sharing on specific topics for communities of people. Might this be a useful approach for bringing the early adopters and the laggards together? Five years of regional communities of practice for practitioners, and one CIHR-funded study later, we know it is. (To date, approximately 6,000 practitioners have been trained to be reliable raters of the outcome measure.)

And in this way, my work on supporting practice change, and the program of research in knowledge translation that is embedded in this systems work has taken shape. Our team has studied communities of practice as a support strategy for practice change, developed a range of supports to augment the two-day training workshops that enable new learners to maintain ongoing contact with the experts, and we are now exploring the use of social media to support practice change. A 5-year CIHR Emerging Team grant with colleagues at McMaster is supporting the development and evaluation of an implementation framework that has us working with five child and youth mental health provider organizations and two school boards to figure out how to bring evidence-based practices into schools and mental health centres.

All the while, my foray into knowledge translation has followed another path. As I’ve watched the field develop over the last decade, it has been apparent that there are new developments in both the science and the practice of knowledge translation. With respect to the latter, this has been most evident in the rise of knowledge translation positions within health care organizations, educational institutions, community-based and volunteer sector organizations. I have taken an interest in these postings, whenever they found
themselves in my ‘in’ box, and have met many of the people who have filled them. Many have found their way to the Ontario Knowledge Translation and Exchange Community of Practice, formed by me and my SickKids colleagues in collaboration with the Institute for Work and Health and the Health Systems Research and Consulting Unit (HSRCU) at CAMH. The KTE CoP has met three or four times a year since 2005, and we have helped one another learn about KT practice, methods, and science. Around the same time, my colleagues at HSRCU and I were funded by CHSRF to develop and evaluate a knowledge translation training workshop for scientists, the purpose of which is to help health scientists understand how KT plays a role in their science, how to engage with multiple stakeholders, and how to develop KT plans for science and measure the impact of their work. The Scientist Knowledge Translation Training© course continues to be offered through the SickKids’ Learning Institute.

These two activities coupled with a growing market for KT Managers, KT Directors, and KT Specialists highlighted, for me, the need to develop professional training for individuals seeking careers in knowledge translation – as practitioners, not as clinicians or scientists. And so, the Professional Certification in Knowledge Translation is in the making. Sponsored by The Hospital for Sick Children and its Learning Institute, and with the support of the University of Toronto’s School of Graduate Studies and Continuing Education for Professional Development office, work is underway to survey KT professionals across Canada and to develop a competency framework and curriculum. A link to the KT professionals survey will be posted on the Learning Institute website and the KTE CoP website, and circulated widely, in late January 2010.

It’s an inspiring area to be working in, and I greatly value all I have learned along the way, thus far, from my KT colleagues – the scientists, the practitioners, and the community partners who have joined us on the journey! There are new mountains ahead and much to tinker, tailor, and spy for this soldier.

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The Hospital for Sick Children