Module 4 Dissemination, Knowledge Transfer and Exchange

The purpose of research is to generate new knowledge and the purpose of dissemination or knowledge transfer and exchange is to get that knowledge to the audiences or stakeholders who will find it useful. The idea of knowledge exchange is that in the real world, research is an iterative process in which practical problems and gaps in knowledge or practice are guide research and results are conveyed to those who perceived the problems or gaps. Academic research like a masters or doctoral thesis under a supervisor is preparation for this real world of useful research. Knowledge transfer and exchange (KTE) is a specialty in many professions, particularly health professions (medicine, nursing, occupational therapy, psychology and psychiatry, etc.), and a community of practice (CoP) engages in sharing best practices about how to link research to practice. (See https://www.ktecop.ca.) When I was last engaged with the KTE CoP, the military was conspicuous by its absence, having its own internal processes of "lessons learned". Most communities now insist on rigorous micro and macro level program evaluation. They are concerned not only with whether a particular project or program was effectively and efficiently carried out, but in the bigger scheme of things, did it achieve what it was intended to achieve? See, for example, Beebe (1995) on rapid assessment process as a policy tool. The military equivalents include operational analysis, measures of effectiveness, and progress indicators. These usually stop short of macro-level analysis. We leave it to the historians (and generally not official historians) to tell us that any particular war was a bad idea from the outset.

I should also note in passing that knowledge transfer is also used in the broader sense of education and informatics (Balaban and Gergely, 2016), which is worth knowing if you want to influence mass audiences. That's generally not what we try to do with the produce of research degrees.

Addressing the doctoral thesis specifically, there are usually two objectives. The first objective is to create new knowledge, and in so doing master the techniques that will allow you to continue to contribute to a body of knowledge through published research. The second is to serve as a journeyman project to enter the guild of university teachers by doing this. You can achieve the second objective without publishing your thesis, but if you want to be competitive as a candidate or just avoid wasting all that effort, you probably want to publish your thesis. To turn a thesis into a book, see one of several good how-to guides: Harman et al Eds. (1976, 2003), Germano (2014), Caro (2009). But don't expect much help from the university awarding the degree (Kamler, 2008).

The path of least resistance to publish might be to reduce your thesis to a peer reviewed article or two. It can be worthwhile getting a key part of your research published in a good quality journal before the defence, both to lay claim to your contribution, and to demonstrate originality. This is a recommended tactic in the Finnish National Defence University, where claims to originality may be treated sceptically if the author hasn't succeeded in publishing them before the defence. If a key part of your thesis has already been accepted for publication

by external reviewers in a good publication, it's harder for examiners to trash it. Of course, all this takes time on a critical path which might already be longer than the student and supervisor would like.

We'll now put aside the specific problem of getting your thesis research into circulation and deal with the more general problem of KTE. Balaban and Gergely (2016) address transferring knowledge to populations through education. Anaya (2012) is concerned with subsets of populations including industries or occupational groups. Bennett and Jessani, eds (2011) is probably the best generic guide to getting new research into the wider world, and I'll draw primarily on the work in this collection.

"Knowledge is like fine wine. The researcher brews it, the scientific paper bottles it, the peer review tastes it, the journal sticks a label on it, and archive systems store it carefully in a cellar. Splendid! Just one small problem: wine is only useful when somebody drinks it. Wine in a bottle does not quench thirst. Knowledge Translation (KT) opens the bottle, pours the wine into a glass, and serves it. The researcher might reasonably leave that part of the work to a broker but must surely never leave it to pure chance. As a perspective on what those chances are, there are 24,000 journals and several million scientific papers in the system. What are the odds of the right person finding yours…even by search, less still by luck? It follows that the effective researcher must ensure that knowledge goes beyond publication. The researcher must also know what, how, where, when, and to who else the information should be communicated." (Bennett and Jessani, 2011, 1)

An editorial aside: Health research remains one of the largest sectors in which KT and KM practices are routinely engaged. Although in the American context, the health industry is largely market-driven, many parts of the world, including Canada, have publicly funded health services and both individual and community health are viewed as public goods (see Strauss et al, eds., 2013). The concept of public funding for research to improve public goods like health, policing, and education has been eroded by market orthodoxies (Blyth, 2002). In defence technology and security industries, the American model has been public funding for research turned over to private companies for profitable development (Weiss, 2014). This is important for KT in military and security research. The researcher has to assess the environment in which there is a demand for the knowledge generated by research. Who will pay for the research and who will benefit? You have read about the Cochrane collaboration in medicine and the Campbell collaboration in social policy. It would be possible to socially construct human security as a public good in the same way as public health; it would be harder to do so for national security and international security when they are seen in zero-sum "realist" terms. The potential for collaborative research on common security, and the generation of new knowledge about the prevention and management of organized violence therefore hinges on ideological perspectives which are plausible in small countries, but less so in large countries captured by the interests of capital as in the US (Van Apeldoorn and de Graaff, 2015) or authoritarian parties as in China or Russia.

Bennett, G., & Jessani, N. (Eds.). (2011). The knowledge translation toolkit: bridging the know-do gap: a resource for researchers. SAGE Publications India.

This book is in five sections: (1) the concepts of knowledge translation and knowledge management, (2) the audience and the context of demand for research, including the problem of bringing push and pull into balance, (3) developing communication strategies, (4) use of media, including print, multimedia, and social media, and (5) the toolbox of examples, templates, and guides. Much of the content is more suitable for major research projects in which teams of researchers work with communities of practices or industries to bring useful research into wider practice, to improve worker health and safety, industry productivity, or environmental impact.

"Knowledge Translation (KT) is the meeting ground between two fundamentally different processes: research and action. It knits them with communicative relationships. KT relies upon partnerships, collaborations, and personal contact between researchers and research-users. In connecting the purity of science with the pragmatism of policy, the intangibles of trust, rapport, and even friendship can be more potent than logic and more compelling than evidence." (3)

Knowledge Translation
The core KT principles are:

1. Knowledge: KT efforts at any level depend upon a robust, accessible, and contextualized knowledge base.
2. Dialogue: The relationships at the heart of KT can only be sustained through regular dialogue and exchange.
3. Capacity: Researchers, decision-makers, and other research-users require a strengthened skill-base to create and respond to KT opportunities. (4)

Four models of KT are push, pull, exchange, and integrated:

FIGURE 1.1
Models of Knowledge Translation
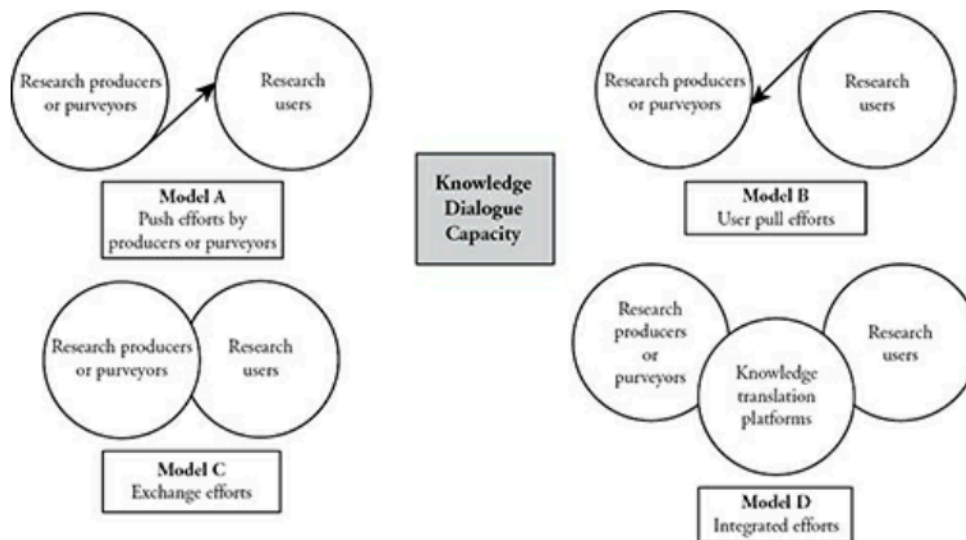
Source: Adapted from Lavis, J., J. Lomas, M. Hamid and N. Sewankambo. 2006. "Assessing Country-level Efforts to Link Research to Action." *Bulletin of the World Health Organisation*, 84: 620–628.

- In which models do different forms of military research operate? Consider the US Army Research Institute (https://ari.altess.army.mil), or the individual researchers presenting every year at the International Society of Military Sciences (www.isofms.org) or ERGOMAS (www.ergomas.ch). Generally, if an organization commissions research, it is model B, and if an individual applies for funds, it is usually model A. In house research organizations like DRDC (https://www.canada.ca/en/defence-research-development.html) are usually model C.

Knowledge management
- "Knowledge is information we can write down (explicitly) and what we know in our heads (tacitly). Successful KM is developing ways to knit together both tacit and explicit knowledge. To do that, we must ask basic questions: Do we know what we "do" know and where that information is? Do we know what we "do not" know, and need to know, and where we might get that information? KM is about creating, identifying, capturing, and sharing knowledge. It is about getting "the right knowledge, in the right place, at the right time" to influence an action or a decision." (8)
- When we discuss a knowledge management strategy, we are in the "research user" circle rather than the "research producer" circle, but it's worth looking at from both sides:
- "What is a KM Strategy? There is no "one size fits all" or "ready to use" prescription for KM. The starting point for any sound strategy is a self-audit of assets, needs, mandate, mission and goals, values, and ways of working. In essence, the three main questions are:

1. Where are we now? What kinds of knowledge do we produce (or gather/store)? What outputs have we created? How do our culture and systems either serve or hinder sound KM practices?
2. Where do we want to be? In five years' time, how will a sound KM strategy change our organization? How will we know when we have a sound KM system? How will we measure the value of our efforts?
3. How do we get there? An action plan outlining the three resources of people, processes, and technology. What specific tools and practices will we use? How will we motivate people to change their practices?"

- From a researcher perspective, you want to understand the KM strategy of your target audiences, if they have one.
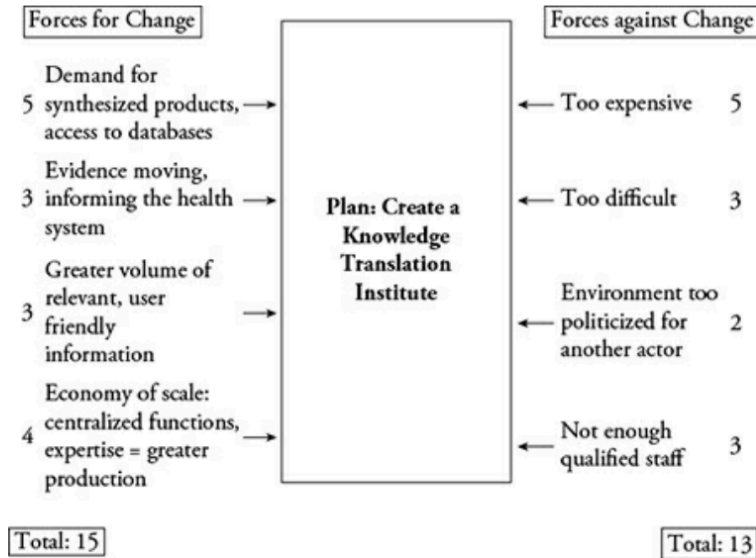
Evaluative thinking
- Intermittent monitoring and evaluation (M&E), which occurs only after a project is completed, is contrasted to evaluative thinking (ET), which is continuous and allows adjustment of the project in progress. (24)
- "In Roper and Pettit's useful conception, learning—particularly at an organizational level—can be divided into three different types of loops. "Single-loop learning" works to identify and correct inefficiencies, while "double-loop learning" involves a routine testing of assumptions and a re-imagining of core strategy. "Triple-loop learning," on the other hand, asks individuals to question and probe the organization's very core, casting an introspective eye on its vision, mission, and guiding fictions." ET is triple-loop learning.

Chapter 4 – Context Mapping
- The dynamics of the policy environment are important. "The more specific an objective, the easier it becomes to under- stand a context and target audience. The target audience is by no means a side-bar—it is an essential part of research from the very outset." (50)
- Target audiences can be divided: "From a list of all stakeholders/targets, it is useful to create three categories:
    1. Those with whom we MUST interact/communicate (usually those with overarching power to enable or prevent our objective);
  2. Those we SHOULD interact/communicate with (usually those who can make the process easier or more difficult);
    3. And those we would LIKE to interact/communicate with (those who might indirectly help or hinder or represent some future or spin-off factor).
- The level at which the research is relevant, or which the researcher is attempting to influence, is important: international, national, or local? How politicized is it? What information does the target audience need in order to act? Are there allies or opponents in the mix to support or undermine the changes suggested by research? Can any of them be implicated in the process of the research?
- Context mapping tools include: stakeholder analysis, forcefield analysis, policy network mapping, influence mapping, and use of policy cycles and policy-making theories.

- Stakeholder analysis (interests, overlap or divergence, importance, influence)
- Force field analysis: put the plan, project or proposed change in the middle, and array forces for and against on either side of the project; assign a numerical score for each force (1=weak, 5=strong)

Forces for Change	Plan: Create a Knowledge Translation Institute	Forces against Change
5 — Demand for synthesized products, access to databases		← Too expensive 5
3 — Evidence moving, informing the health system		← Too difficult 3
3 — Greater volume of relevant, user friendly information		← Environment too politicized for another actor 2
4 — Economy of scale: centralized functions, expertise = greater production		← Not enough qualified staff 3
Total: 15		Total: 13

Source: Adapted from *Force Field Analysis: Understanding the Pressures for and Against Change*, Mind Tools, available online at http://www.mindtools.com/pages/article/newTED_06.htm

- Policy network mapping: "This helps to bypass less relevant actors and focus on those who are really concerned by, or can influence, projects, and proposals. Like Stakeholder Analysis, Policy Network Mapping can reveal personal and team relationships with individuals who wield political influence. Elements to consider include:
    1. What are the different points through which a project or policy passes to become approved and implemented?
    2. Who are the actors in charge of each step?
    3. How is access to these actors achieved?
    4. Are there other actors—not officially part of the process—who have substantial influence over those who decide?
    5. In which ways can officials exercise influence over this process? Do they have particular skills or contacts that might help?

FIGURE 4.3
Policy Network Map: HIV/AIDS in Country X
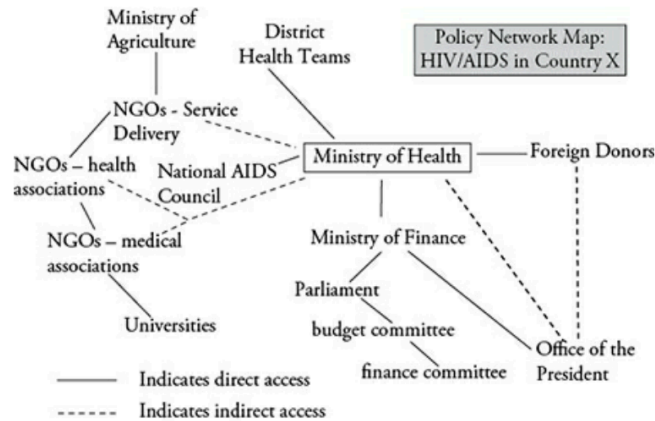
Source: Adapted from Crosby, B. 1992. "Management and the Environment for Implementation of Policy Change: Part Two, Policy Environment Mapping Techniques," *Implementing Policy Change: Technical Notes No. 5*, April 1992. Available online at http://www.usaid.gov/our_work/democracy_and_governance/publications/ipc/tn-5.pdf (accessed October 14, 2010).

- Influence mapping. "This tool, also known as Stakeholder Influence Mapping, Power Mapping, or Arena of Influence, identifies "the individuals and groups with the power to effect a key decision." It also helps investigate "the position and motive of each player and the best channels to communicate with them." We can imagine creating an influence map either as a separate graphic, or through annotation of a policy network map. Sometimes those with the greatest influence may not be on the policy network map – e.g. family or friends of the executive in some countries.

Chapter 6 – Communication Strategy
- The concept of a communications strategy is crafted for research institutes rather than individual researchers, but researchers can piggyback on funding agencies. For example, if you get a Fulbright fellowship, then the Fulbright organization has an interest in broadcasting and targeting your findings.
- "Addressing these 10 crucial steps gives a snapshot of who you are, what you have to say to the world, who you want to influence, and how you will do that—now, and in the months and years to come.
  > 1. Review: How have you been communicating in the past? How effective has that been? How do audiences perceive the messages?
  > 2. Objective: What do you want your communication to achieve? Are the objectives SMART?
  > 3. Audience: Who is the key audience? Are there others? What information do they need to act upon the message?
  > 4. Message: What is the message? Do you have one message for multiple audiences or multiple messages for multiple audiences?
  > 5. Basket: What kinds of communication "products" best display and deliver your messages?
  > 6. Channels: What channels will promote and disseminate your products?

7. Resources: What budget do you have for this? Will this change in the future? What communication skills and hardware do we have?

8. Timing: What is your timeline? Would a phased strategy be most appropriate? What special events or opportunities might arise? Does the work (or future work) of like-minded organizations or ministries, etc., present opportunities?

9. Brand: Are all of your communication products "on brand?" How can you ensure that you are broadcasting the right message?

10. Feedback: How will you know when your communication strategy is successful? What would have changed? How can you assess whether you used the right tools, were on budget and on time, and had any influence?"

Chapter 10: The Strategy Checklist
- See Chapter 6 for the 10-point checklist. Best practice examples not only act as mentors; they can be copied.
- RESOURCES

    1. The International Monetary Fund. 2007. "The IMF's Communication Strategy." Available online at https://www.imf.org/external/np/pp/2007/eng/052907.pdf (accessed October 14, 2010). This example shows how communication can help an organization achieve its core goals.

    2. The Medical Research Council. 2007 (update). "Communication Strategy 2005–2010." Available online at http://www.mrc.co.za/about/commstrat2007.pdf (accessed October 14, 2010). MRC lays out its strategy and imperatives. It understands its niche and audiences well.

    3. Africa Drive Programme. 2006. "Communication Strategy and Plan." Available online at http://www.adp.org.za/Trust_Meeting_Documents/ADP_Trust_Meeting_07_09 _06/Documents/ADP_ComStrat_V0_1.doc (accessed October 14, 2010). This document has a breakdown of the communication requirements and several tables that demonstrate how to develop and pitch key messages.

Chapter 12: Making the most of conferences
- In addition to the sound advice on preparing and delivering the standard 20-minute, 3 point presentation at a conference in chapter 12, here are some points that are more generally relevant for researchers breaking into the academic world, based on my own experience
- Find the panel chair and introduce yourself before the panel. Same with the other panellists; you are grouped for a reason, and should find their work interesting, but if you're like me you won't be concentrating much on what they have to say during the panel itself.
- Use the web site to figure out the structure of the society hosting the conference—who are the key people in your field, and what are their connections, especially to journals, publishers, and research institutes

- Use the social margins of a conference to get to know people in your research field; use the conference program to target the ones that are most interesting, but don't limit the list just to people doing the same work as you.
- Do as much of the prep work (who's who, how are they connected, who influences who, what have they written) in advance of the conference, and consider sending emails to introduce yourself; have specific questions in your pocket
- Always have business cards with you; it's the currency of conferences. Put your website URL on your business card, or use ResearchGate or Academia.edu to broadcast your wares

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