INSTITUTIONALLY EMBEDDED PROFESSIONALS' PERSPECTIVES ON KNOWLEDGE MOBILIZATION: FINDINGS FROM A DEVELOPMENTAL EVALUATION

STEPHEN MACGREGOR
UNIVERSITY OF TORONTO

DAVID J. PHIPPS
YORK UNIVERSITY

CATHY MALCOLM EDWARDS
CARLETON UNIVERSITY

JEN KYFFIN
UNIVERSITY OF VICTORIA

VIRGINIE PORTES
UNIVERSITÉ DE MONTRÉAL

Abstract

Intentional efforts to advance the societal impacts of research are known as knowledge mobilization (KMb). Despite increasing pressure on researchers and higher education institutions (HEIs) to engage in KMb activities, capacity building in this area is constrained by a limited understanding of the role of HEIs from the perspective of embedded KMb professionals. This study presents findings from a developmental evaluation of Research Impact Canada's efforts to build institutional capacity for KMb. Through semi-structured interviews ($n = 20$) with KMb professionals from 15 Canadian HEIs, we share (a) approaches for how KMb professionals can thrive in institutional environments, and (b) essential questions about KMb for the higher education sector. From that basis, we discuss how there is a need for skilled KMb professionals within HEIs and a need for (inter) national research and practice collaborations.

Keywords: knowledge mobilization, research impact, higher education institutions, developmental evaluation, networked learning

Résumé

Les efforts concertés pour permettre à la société de bénéficier des fruits de la recherche sont connus sous le nom de mobilisation des connaissances (MdesC). Malgré la pression croissante exercée sur les chercheurs et les établissements d'enseignement supérieur pour qu'ils s'engagent dans des activités de mobilisation des connaissances, le renforcement des capacités dans ce domaine est entravé par une compréhension limitée du rôle des établissements d'enseignement supérieur par les professionnels de la MdesC. Cette étude présente les résultats d'une évaluation développementale des efforts déployés par le Réseau Impact Recherche Canada pour renforcer la capacité des établissements en MdesC. Au moyen d'entrevues semi-structurées ($n = 20$) avec des professionnels de la MdesC de 15 établissements d'enseignement supérieur canadiens, nous présentons (a) des approches pour permettre aux professionnels de la MdesC de s'épanouir dans les environnements institutionnels et (b) des questions essentielles sur la MdesC dans le secteur de l'enseignement supérieur.

Mots-clés : mobilisation des connaissances, impact de la recherche, établissements d'enseignement supérieur, évaluation développementale, apprentissage en réseau

Introduction

Research can play a critical role in addressing local and global challenges, yet too often it goes underutilized (Boaz et al., 2019; Nutley et al., 2007). In Canada and abroad, governments and research funders are responding to this issue by raising expectations that research activities are accompanied by knowledge mobilization

(KMb) efforts to achieve impact beyond the academy (Cain et al., 2018; McLean et al., 2018). Research impact (hereafter, impact) refers to "the influence scholarly and creative inquiry has upon wider society, intended as well as unintended, immediate as well as protracted" (Federation for the Humanities and Social Sciences, 2017, p. 13), and KMb refers to intentional efforts to achieve impact. Despite the increasing pressure, researchers and higher education institutions (HEIs) are struggling to build their KMb capacity (Cooper et al., 2018; Fischman et al., 2018; Sá et al., 2011, 2012). Recent studies find that institutionally embedded professional staff who operationalize KMb efforts may play a crucial role in improving the current situation (e.g., Cvitanovic et al., 2017; van der Graaf et al., 2019; Wye et al., 2019). However, very little is known about this emerging area of professional practice.

To date, much of the scholarly literature in KMb has focused either on (a) the public policies driving increased emphasis on impact (e.g., Bandola-Gill, 2019; Boswell & Smith, 2017; Williams & Grant, 2018), or (b) moving research evidence into use by a downstream stakeholder and assessing that use (e.g., Budtz Pedersen et al., 2020; Edwards & Meagher, 2020). The roles and activities of HEIs and embedded KMb professionals remain comparatively understudied, particularly how KMb can be jointly driven by individuals and institutions. This gap is salient considering that HEIs are the link between what governments and funders want and what researchers and their partners can deliver. Accordingly, in this article we present findings from a developmental evaluation of Research Impact Canada's (RIC) efforts to build institutional capacity for KMb. Following a look back at key developments surrounding KMb, we interrogate the perspectives and experiences of RIC's institutionally embedded KMb professionals. From there, we discuss propositions grounded in the recent literature and informed by practitioner expertise about how governments and research funders, institutions, and individuals could foster the future of KMb.

Review of the Literature

We begin with a brief review of past and present KMb developments in Canada and, to a lesser degree, globally. Considering the many areas of study that intersect with KMb (e.g., implementation science, research uti-

lization), our review is necessarily partial, focusing on major developments that inform the forward-looking direction of this article.

Where Have We Been?

University research has always had the potential to generate societal impacts. In Canada, health researchers have had close to 25 years of funding to support the advancement of impact, tracing back to the Canadian Foundation for Healthcare Improvement's (n.d.) explicit mandate to build the Canadian health system's capacity for knowledge transfer and exchange. In the time since, the three federal research funding agencies—collectively, the Tri-Agency—have each enhanced their efforts to improve connections among research production, mediation, and use contexts (Holmes & Straus, 2019). The Canadian Institutes of Health Research (CIHR), founded in 2000, takes up this work through its legislated mandate in both creating and translating knowledge for the improved health of Canadians. The Social Sciences and Humanities Research Council (SSHRC) launched a renewed program architecture in 2006 that required every grant application to include a KMb strategy (i.e., a plan outlining anticipated impacts with the target audiences along with the efforts that will be made to achieve them; SSHRC, 2019). The Natural Sciences and Engineering Research Council of Canada (NSERC) has increasingly emphasized innovation and commercialization to ensure funded research is of service to Canadians.

More recently, in late 2018, the Tri-Agency launched the New Frontiers in Research Fund (NFRF), which will invest in high-risk, high-reward research. Highly scored applications will demonstrate "significant social, economic, environmental or health impact…a solid plan to measure the impact…[and] a high likelihood that the significant impact will be realized" (Government of Canada, 2021), among other impact-related review criteria. The NFRF also requires that all applications be interdisciplinary in scope, with funded research expected to bridge provincial and national interests through the application of KMb efforts. Impact and KMb are thus core elements of the NFRF.

This increasing emphasis on impact is not only a Canadian phenomenon. Studies illustrate international and growing attention to how research can support effective responses to societal challenges (e.g., Doyle,

2018; Wilkinson, 2019). However, unlike impact contexts such as the UK and Australia, Canadian researchers and HEIs have been, in most cases, incentivized to develop ex-ante descriptions of how research will lead to impact rather than post hoc descriptions of what impacts were achieved through past research. This distinction is viewed as a difference between mission-driven and assessment-driven systems for impact, respectively (Bayley & Phipps, 2019a), and it provides a basis from which to consider the modern impact landscape.

Where Are We Now?

The dual expansion of mission-driven and assessment-driven systems constitutes the so-called *impact agenda*: a proliferation in approaches for mobilizing research and assessing its impacts (e.g., see Budtz Pedersen et al., 2020; Greenhalgh et al., 2016; Hill, 2016). Much disputed in the HEI landscape (Bandola-Gill, 2019), the impact agenda implicates both individuals and institutions in realizing the societal benefits of research.

Implicating the Individual

Frameworks, models, and specialized languages abound for how individuals and groups participate in KMb, complicating the field for scholars and practitioners of impact alike (Powell et al., 2017, 2018). At a general level, Best and Holmes (2010) offer a "three generations" (p. 146) perspective for conceptualizing different approaches to KMb. Campbell et al. (2017) summarize it as follows:

- "*Linear models* in which research is produced and then made available for users in a mainly one-way relationship;
- *Relationship models* (such as network and partnership models) that build on linear models but focus on enhancing relationships between and among researchers and practitioners to facilitate the development and mobilisation of research and practice connections;
- *Systems models* that move away from linear processes and involve a more complex process involving interaction, co-creation and implementation of evidence throughout all levels of a system, plus identifying and addressing barriers to mobilising research and practice knowledge for evidence use." (p. 212)

The generations framing reflects an overall trend in the field of KMb toward addressing the limitations of earlier rational-linear approaches (Budtz Pedersen et al., 2020) and involving more diverse stakeholders and forms of knowledge (e.g., co-produced knowledge; Jull et al., 2018). However, within HEIs, where myriad KMb efforts are underway at any given time, it remains likely that examples of all three models are operating concurrently, with linear models reflecting traditional tech transfer or commercialization efforts, relationship models reflecting public engagement efforts, and systems models reflecting network building and co-production. The need to grapple with such complexity has prompted the development of various ways of conceiving the competencies individuals, especially professional staff, need to effectively navigate impact pathways (e.g., Bayley et al., 2018; Mallidou et al., 2018; Straus et al., 2011). Yet, to date, there are few empirical studies of how various expressions of these competencies take shape for different approaches to KMb or how they may relate to the effectiveness and impact of different approaches (MacKillop et al., 2020; Neal et al., 2021).

Further complicating the impact landscape for individuals, multiple studies have found that KMb remains a peripheral concern for many Canadian researchers (Cooper, 2017; Cooper et al., 2018; Fischman et al., 2018) and without robust institutional backing (Cain et al., 2018; Cooper, 2015; Sá et al., 2011). Common critiques include the limited time for interactive KMb efforts, insufficient access to institutional resources, unrealistic expectations and work overload, scarce opportunities for professional support and development, and precarious working conditions for professional staff (e.g., Knight & Lyall, 2013; van der Graaf et al., 2019; Wye et al., 2019). There is a consequent need for further inquiry into how different actors holding different KMb roles within HEIs can work synergistically to overcome constraints and build collective efficacy.

Implicating the Institution

The impact agenda has also precipitated various opportunities and challenges for universities' organizational structures and processes. To characterize the circumstances, Fischman et al. (2018) invoke the concept of *structural accretion*, suggesting that new KMb and impact functions are being introduced "without either foregoing old ones or creating separate new institutional structures to support these functions…generat[ing] disruptive demands

on well-established traditions and university operations, challenging each institution to reengineer itself to survive" (p. 2). Institutional adaptation in this regard is hampered by the limited empirical research that considers how HEIs might serve as intermediaries in advancing impact; as Pearce and Evans (2018) observe, "impact as a concept is largely absent from studies discussing long term changes to HE [higher education] and university structures" (p. 351). Returning to the example of KMb and impact competencies, multiple studies have noted that organizations are largely overlooked in the research literature compared to the individual (e.g., Bayley & Phipps, 2019b; MacKillop et al., 2020; Mallidou et al., 2018).

Notwithstanding the nascent literature base, Canadian universities display marked interest in building capacity to support impact. For instance, the U15 is a signatory on several Global Network statements[1] that consider the role of HEIs in (inter)national development. One of the most well-known is the Hefei Statement (2013), which asserts that "it is critical that all relevant policies [acting within or upon institutions] recognize the broad, pervasive and long-term benefits of university research and education and provide the support and environment that will ensure that these institutions continue to flourish" (p. 3). In other words, the statement holds that HEIs play a key role in addressing local and global challenges, but it also acknowledges that policies espousing short-term or instrumentalist views about what makes HEIs effective constrain that role. Similarly, the Leiden Statement, while focusing on social sciences and humanities disciplines, describes the essential role of research in helping "us understand what it means to be human in a complex world that is dynamic and multi-dimensional" ("Leiden Statement," 2014, p. 3). Collectively, such documents establish the vision that universities are crucibles of societal change in Canada, generating influence through high-quality research, teaching, and KMb. Advancing this vision requires a pragmatic way of linking the historical context of HEIs with the individual and institutional dimensions of impact. To that end, we employ the concept of *impact literacy*.

Conceptual Framework: Impact Literacy

Impact literacy is defined as an ability to "identify appropriate impact goals and indicators, critically appraise

and optimise impact pathways, and reflect on the skills needed to tailor approaches across contexts" (Bayley & Phipps, 2019a, p. 599). It encompasses three elements that characterize impact pathways:

- How: the intentional and emergent practices that create impact (i.e., KMb),
- What: the measurement and articulation of manifest impacts, and
- Who: the human force that facilitates the integration of *how* and *what*.

Bayley and Phipps (2019b) later added the fourth element *why* to prompt a baseline understanding of the motivations for pursuing impact and the concomitant ethical considerations (e.g., power dynamics, potential negative impacts). Impact literacy maintains that "impact is only achievable (and sustainable) if operationalised into individual *and* institutional practice [emphasis in original]" (Bayley & Phipps, 2019a, p. 602). Indeed, Figure 1 illustrates that institutional and individual impact literacy are interdependent and symbiotic, and a discrepancy between the individual and institutional levels can constrain their collective ability to generate impact.

Table 1 describes how different levels of impact literacy can be generally characterized for institutions and individuals, depending on their respective capacity to critique and integrate the available evidence about KMb and impact practices. Bayley and Phipps (2019b) are careful to emphasize that these levels are intended to provide a conceptualization of developmental progression, not a blunt categorization of impact literate versus non-literate. In this way, some individuals and institutions may lie between these general levels. For example, an institution could be classified as *enabling* based on its policies, plans, or strategies for KMb and impact, but *supportive* in that it has not yet invested in developing individuals' capacities. Similarly, an individual could be classified as *engaged* based on how they comprehend the evidence base for impact and KMb, but *aware* if their efforts remain primarily directed at the level of individual projects. Unlike other frameworks and models that consider KMb practices within single initiatives, impact literacy enables a broad understanding of the KMb landscape that centres the development of impact-healthy institutions (see Bayley & Phipps, 2019c).

Figure 1

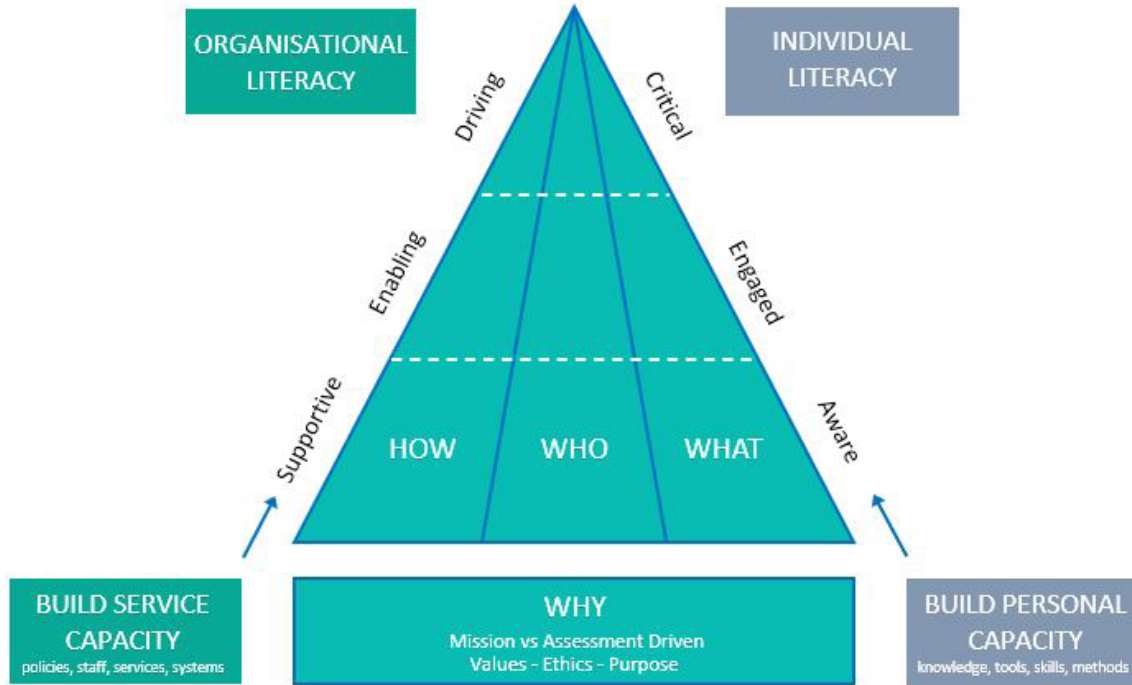*Impact Literacy (reprinted from Bayley & Phipps, 2019b with permission)*

Table 1

Levels of Institutional and Individual Impact Literacy

Institutional Impact Literacy	Individual Impact Literacy
Supportive: basic conditions, wherein the expectations for generating impact are largely imposed on researchers with limited or lacking institutional policies, plans, or strategy for KMb or impact.	**Aware:** basic level of comprehension, which signifies an understanding that an emerging evidence base for impact and KMb exists, but there is uncertainty about how to incorporate it into professional practice. Efforts are directed primarily at the level of individual projects.
Enabling: intermediate conditions, wherein a more active and reflexive approach to generating impact is taking shape, including policies, plans, or strategy for KMb and impact. There are also some efforts to support embedded individuals in developing their individual impact literacy.	**Engaged:** intermediate level of comprehension, which signifies being informed by and engaging with the evidence base for impact and KMb. Efforts are directed at both the project and programme level.

Institutional Impact Literacy	Individual Impact Literacy
Driving: advanced conditions, wherein the approach to generating impact goes beyond external requirements and where institutional policies, plans, and strategies for KMb and impact support both embedded individuals and external stakeholders. There are also substantive efforts to build individual impact literacy and continuously improve current efforts.	***Critical:*** advanced level of comprehension, which signifies the capacity to not only engage with the evidence base for impact and KMb, but also synthesize, critique, and extend the available evidence. Efforts are increasingly directed at a systems level.

Note. See Bayley and Phipps (2019b) for a cross tabulation of the different levels of institutional and individual impact literacy.

Methods

Data for this study were drawn from a developmental evaluation of Research Impact Canada's (RIC) efforts to build institutional capacity for KMb. Developmental evaluation holds stakeholder engagement and co-creation as essential principles for effecting change in complex adaptive systems (Patton, 2011). In contrast to traditional approaches to evaluation, it requires that evaluators become embedded in change processes: they "ask questions, use data to reflect the system at a given time, ask stakeholders what they think might explain the patterns, and brainstorm collective solutions or avenues to improved processes or impacts" (MacGregor & Cooper, 2022, p. 4). Correspondingly, all data collection and analysis procedures were jointly driven by the external evaluator (SM), who joined RIC as part of their Evaluation Committee, and other senior individuals from RIC (particularly the other authors of this article).

Evaluation Context

Founded in 2006 through a SSHRC/CIHR Intellectual Property Mobilization grant, RIC has grown from a two-university collaboration into a pan-Canadian network of HEIs, spanning all provinces except Prince Edward Island. While RIC's member institutions display considerable diversity in their local and organizational contexts (e.g., different values and norms for KMb), they are united by the network's mission: "creating value from knowledge by developing and sharing best practices, services and tools, and by demonstrating to relevant stakeholders and the public the positive impacts of mobilizing knowledge" (RIC, 2018, p. 2). To join the network, prospective institutions must demonstrate (a) documented commitment to institutional KMb and impact, (b) established investment in KMb supports, and (c) a desire to share their expertise in a network learning environment.

Despite a modest operating budget, RIC ranks among the top research brokering organizations in Canada (Cooper, 2014), and it contrasts more common short-term KMb initiatives with its sustained efforts to build the KMb capacity of HEIs. Unlike networks that focus on a specific discipline or subject, RIC's remit spans disciplines and sectors. Since this phase of the evaluation began in late 2019, the network has grown from 17 to 23 HEIs, including the University of Brighton (UK) as an international member and Ontario Shores, a public teaching hospital, as the first non-university member.

Data Collection

The findings presented herein build upon an earlier phase of RIC's developmental evaluation that employed survey methods to investigate its networked approach to building institutional KMb capacity (MacGregor & Phipps, 2020). Following that phase, semi-structured interviews were conducted with participants from 15 of the 21 member institutions between December 2019 and April 2020. As data collection occurred during the initial months of the COVID-19 pandemic, all interviews were conducted using the Zoom videoconferencing software. Participants were *internal members* as described in the RIC logic model (i.e., network contributors, Governance Committee members, and institutional executive leads; Bergen, 2019), with the following professional characteristics: all were professional staff; nine had KMb in their job titles (e.g., Manager of KMb), while the others had aspects of research communications, strategy, partnerships, exchange, or engagement; all but one worked

under the leadership of a vice-president, research (or equivalent role); 17 stated KMb was the main concept used in their work, while the others used knowledge exchange, knowledge translation and transfer, or research impact; and they possessed medians of 2.8 years in their institutional role and 2.0 years with RIC.

Interviews lasted 60–90 minutes and followed a semi-structured protocol to ensure collected data were comprehensive and systematic, to anticipate and address logical gaps in the data, and to interrogate participants' local HEI contexts (Patton, 2002). The interview guide (Table 2) was developed in consultation with the RIC Evaluation Committee and featured questions that explored participants' practices as members of the network and as individual KMb professionals embedded in HEIs.

Data Analysis

All interviews were audio recorded, transcribed, and shared with participants for member checking. Transcripts were then uploaded into NVivo 12 and thematically analyzed using the constant comparative method (Glaser & Strauss, 1967). Initial coding was undertaken by the lead author and another KMb researcher. Each analyst read

and re-read the interview transcripts and engaged in a process of "breaking down, examining, comparing, conceptualizing, and categorizing data" (Strauss & Corbin, 1990, p. 61). After independently coding one quarter of the interview data, emergent categories and sub-categories were compared, differences in data interpretation and coding were discussed, and a general coding scheme was developed (DeCuir-Gunby et al., 2011). The lead author then met with the RIC Network Director to discuss the coding scheme and early insights from the analysis. Following several clarifications (e.g., disaggregating the interview participants' recommendations for the network versus for other members), the lead author then analyzed the full data set. When the coding scheme could not be applied to represent key meanings in the transcripts, new codes were added, and analysis continued.

As the analysis progressed, several feedback loops were set up with different RIC audiences (e.g., Governance Committee, Steering Committee, broader membership) in the form of "ongoing sense-making activities: interpreting, synthesizing, and generating insights and recommendations using multiple forms of written and verbal communications" (Preskill & Beer, 2012, p. 8). These feedback loops ensured the timely sharing

Table 2

Major Dimensions of the Semi-Structured Interview Protocol With Example Questions

Major Dimension		Example Questions
Institutional environment for KMb	1.	What factors are driving your institution's approach to KMb?
	2.	Does your institution have future plans for KMb that vary from current practice?
Perspectives on network learning	3.	What kinds of information would improve the usefulness of RIC's activities to build institutional KMb capacity?
	4.	How can RIC enhance contact and learning between members?
Primary job functions and effective practices	5.	What are your main work activities?
	6.	What models, theories, or frameworks do you use in your KMb work?
Perspectives on the future of KMb in Canada	7.	In your conversations with other KMb professionals in Canada, what questions about KMb seem to come up repeatedly?
	8.	What aspects of KMb do people in your institution seem most animated about?

of findings, facilitated informed decision making about how RIC could adapt to its dynamic internal and external contexts, and ensured the findings accurately reflected the interview participants' perspectives and experiences regarding institutional KMb capacity building.

In keeping with the principles of DE, the findings presented below were co-created. Specifically, we combine a traditional presentation of descriptive qualitative findings with four vignettes from experienced KMb practitioners of RIC—all but the first also participated in the semi-structured interviews. The vignettes were developed after sharing early versions of the descriptive qualitative findings. Combining the two forms supported the crystallization of findings, enabling "a deepened, complex, thoroughly partial, understanding of the topic" (Richardson, 2000, p. 934) through "contrasting approaches to analysis and representation, while also being self-referential to their partiality" (Ellingson, 2011, p. 10). That is, the two forms of representation aimed to provide practice-relevant insights while interrogating research-based concepts. Additionally, in view of our conceptual framework, we supplement each section with implications for institutions and questions for embedded KMb professionals to draw out a nuanced understanding about the development of impact literacy.

Findings

Our findings concentrate on two themes that surfaced in the analysis: (a) approaches for how KMb professionals can thrive in their institutional environments, and (b) essential questions about KMb for the higher education sector. To evidence that a variety of perspectives informed each section, participants are distinguished in the illustrative quotations using a letter assigned to institutions at random and a number assigned to members from the same institution at random (e.g., A2).

Approaches for How KMb Professionals Can Thrive in Institutional Environments

Cultivate a Systems Perspective

The first approach offered by participants was to cultivate an awareness for the sociocultural contexts of KMb, with emphasis on local institutional contexts. A systems perspective recognizes KMb "processes and relation-

ships themselves are shaped, embedded and organised through structures that mediate the types of interactions that occur among multiple agents with unique worldviews, priorities, languages, means of communication and expectations" (Best & Holmes, 2010, p. 148). RIC members made this perspective tangible by embracing the complexity of KMb within their institution and being intentional about learning their local contexts. Regarding the former, one participant commented how their successful experiences with KMb were predicated on "being open to trying things and keeping track of what works, what doesn't…and the [associated] context" (F1). They[2] went on to describe how, over time, some approaches to KMb that once produced positive outcomes had waned in utility as the institutional context evolved (e.g., as researchers' familiarity with KMb improved). This point was salient when considering the networked context of RIC, as members were aware that the outcomes of any KMb activities were "going to be different depending on everyone's context" (H1), meaning that a "what works" approach to KMb would falter without understanding why specific activities worked given various contextual factors.

At the same time, cultivating a general awareness of Canadian and international contexts for KMb was secondary to an in-depth understanding of local contexts for producing and using knowledge. Two participants described how they generated momentum in their work by reaching out to many different research stakeholders on and off campus to learn "how important knowledge mobilization was for them, the facilitators and barriers they saw in their work, how much of it they do, and also what the university could do to help" (B2). This initial work enabled the triaging of KMb activities to meet institutional needs under limited resources, while appreciating that long-term support for KMb would require showing early return-on-investment. However, sustaining momentum was another story. As a more experienced participant commented, "I'm two years in, and it still takes a lot of time to reach out, find out what is happening across campus, and build those relationships. And it's an ongoing process that you continually have to pay attention to" (A3). Our first practitioner vignette further elucidates these findings.

David Phipps, York University. Universities are systems of multiple faculties, and they sit within external systems. RIC members learn from each other, but we

do not copy each other because our on- and off-campus systems are different. By way of a few examples, York University is a suburban university with close ties to a region with a high newcomer population, the University of Regina has a strong relationship with Indigenous communities, the Memorial University of Newfoundland has a unique one university/one province culture, and UQAM is located in the inner city of Montreal. To successfully practice KMb, I can get tools, tips, and techniques from RIC members, but I need to invest my time and energy adapting those to my local context based on my experience as a KMb practitioner at York University since 2006. In my experience, I am successful working in the York Region system because I connect to people to understand their context. I have key contacts in the United Way, Regional Municipality of York, and York Region District School Board, among others. I also have key contacts across campus in faculties and in central service units. Fostering these contacts is a necessary pre-condition to working in a systems perspective. I cannot sit in my office and push out what I think is important, I need to meet them where they are and find out what their needs are. Working that way connects me to my KMb system.

Implications for Institutions. Identify the key stakeholders on and off campus involved in institutional KMb efforts. Investigate what institutional structures and processes could be created, evolved, or annulled to better utilize embedded KMb capacity (e.g., consider how renewal, tenure, and promotion processes could better recognize KMb efforts).

Questions for KMb Professionals. What intentional efforts do you take to build an understanding of your institution's local contexts for KMb? Who could you connect with on and off campus to expand your current understandings of this context? How are you cultivating your awareness and understanding of the evidence base for KMb and impact? What are your processes for integrating new understandings into your local institutional efforts?

Invest in Professional Capital

The second approach was for KMb professionals to invest in their professional capital, a blend of human, social, and decisional capital (Hargreaves & Fullan, 2012). Human capital engages with the notion that front-line KMb professionals need specific competencies for effective practice. In the view of RIC members, human

capital extended beyond core knowledge and skills: "it's personality, it's being opportunistic, it's following your gut, it's being a good human being" (L1). Supporting one another's professional development thus required more than sharing content and procedural knowledge; it also required attentiveness to areas such as personal disposition (see Jessani et al., 2016, for more on this topic).

Along the line of network learning, investment in developing one's social capital respects that effective KMb is founded upon interactions and relationships. As one participant put it when reflecting on their involvement in RIC, "I'm not sure if I could identify just one physical resource, but the human resources, that's my value proposition" (H2). Another member explained that "we hear each other, we hear the problems that the others have, and then we realize that we are not alone" (K2). Nearly every participant underscored the value of their relationships within the RIC network for advancing their practice. More than the content of exchanges, trusting connections with other members enabled, among other exchanges, the shared investigation of KMb efforts that failed to achieve expected results.

The third element, decision capital, deals with how KMb professionals learn to make informed judgements about effective KMb throughout their career. Early career professionals often struggle to make rapid decisions about the best course of action for a given problem of practice. As KMb professionals, RIC members described the importance of developing the ability to make judgements in situations with incomplete evidence and uncertain solutions: "You're doing physics one day and you're doing history of art one day, so you really have to be very versatile in your ability to think and share and develop some kind of education around knowledge mobilization itself" (C1). However, developing that ability was no simple undertaking, and in this respect, participants extolled how the RIC network provided opportunities to observe more advanced decisional capital built up "through structured and unstructured experience, practice, and reflection" (Hargreaves & Fullan, 2012, p. 114). Our second practitioner vignette expands on the development of professional capital.

Virginie Portes, Université du Montréal. The choice to develop expertise in KMb within the Office of Research at Université du Montréal was prompted by the growing importance given to this aspect by Canadian granting agencies. In recent years, professors have been

required to include a KMb plan in most of their grant applications. Given the advisory function of a research office, how can we help professors reflect on and structure this section of their application and convince them of its merits? At Université du Montréal, we recruited a KMb advisor with a specific mandate that had not yet been included in the more traditional range of research support services offered in the Office. This advisor took the few KMb training courses available, provided his colleagues with KMb tools, gave workshops to raise awareness on the specific issues of the KMb, and managed KMb competitions, while establishing the necessary links with internal and external stakeholders. In terms of professional development, the opportunity offered by the RIC network has been crucial in continuing to evolve the advisor's role, notably by integrating him into a network of practitioners offering tools, guides, advice, and numerous opportunities to learn and share. The position requires flexibility and openness, as well as a range of competencies (e.g., communication, facilitating and liaising, advocating change, networking, coaching, digital literacy). It is therefore an unusual, transdisciplinary, and absolutely necessary expertise that has been developed within a research office.

Implications for Institutions. Allocate institutional resources to support professional learning in the areas of KMb and impact for embedded KMb professionals. Examine how KMb professionals are valued (e.g., promotion, recognition, transparent career pathways).

Questions for KMb Professionals. What intentional efforts do you undertake in your professional learning to build your KMb competencies and social connections? What are your short-term and long-term goals for building your individual impact literacy and contributing to your institution's impact literacy?

Essential Questions About KMb for the Higher Education Sector

What Does Effective KMb Look Like?

More than any other topic, RIC members wanted to know what others in their network had learned from facilitating KMb. Reflecting on the growing number of frameworks and general tools for KMb, one member commented,

> It's fun to have these tools…but if we had a sense as to what the barriers were, what the facilitators were,

what the evaluation or the outcomes of their efforts were, and what validation has been done, it would be even more useful. (B2)

This sentiment was echoed across institutions, suggesting that in tandem with the professionalization of KMb, members of RIC were increasingly requiring evidence about the actions and consequences of different approaches to KMb. Participants felt that network learning opportunities like RIC were critical not only to share "resources and evidence to inform best practices" (A2) and "amplify knowledge mobilization" (A3) on their campuses, but also to further the evaluation of KMb activities. Without the higher education sector continuing to place emphasis on advancing the science of KMb through evaluation efforts (e.g., see Davies et al., 2015), participants believed it would be difficult to gain wider institutional support. Our third practitioner vignette underscores the gravity of mobilizing lessons learned from doing KMb.

Cathy Malcolm Edwards, Carleton University. The term "evidence-based" is part of our everyday vernacular, and at the same time, it is quite loaded. As knowledge mobilizers, we are asked to supply proof something will work, show the value of an investment of resources, or give advice to mitigate risk. In a field that is seemingly equal parts knowledge and intuition, a blending of the art of becoming with the science of understanding, success is not as simple as counting numbers (people, events, connections, publications, etc.). I often find myself struggling to provide evidence of the inherent value of the process of KMb. How do you demonstrate growth, influence, and impact, or evaluate meaning and connection? These are big questions that extend far beyond the world of KMb but for those of us with a professional network like RIC, we have a place where we can talk about them.

Shared learning is essential in a mobilizer's world. Just as RIC was focused on impact long before it was a popular term, it also has been an early adopter of the failure report. Over the last few years, as part of our annual general meeting, we have created space for members to share what has been tried that fell flat, was a misstep, or perhaps even an epic fail. This is not driven by morbid curiosity but an intention of understanding so we can do better. In a field that relies on understanding and embracing the human condition, it is as important to share our "even better if" moments (i.e., where retrospect suggests alternative actions for improved outcomes) as well as our wins. The field of KMb is new and will continue

to grow and evolve. Keeping a steady static state is not enough when called to a place of service for researchers, students, and their research partners.

Implications for Institutions. Establish evaluation methods and processes to document and subsequently act upon the outcomes of KMb efforts. Explore how the institution can engage with and contribute to the evidence base for KMb.

Questions for KMb Professionals. What opportunities to learn from and with other KMb professionals are you involved in? How could you support your professional networks in advancing evidence-informed approaches to professional learning?

How Can KMb Be Taught Effectively?

Building upon the desire to improve KMb practices by learning from one another, RIC members wanted to know how to effectively teach KMb. Multiple participants explained that a significant proportion of their work with faculty and graduate students concerned the basics of KMb (e.g., terminology, frameworks, models). And although capacity-building opportunities have proliferated (e.g., the knowledge translation training programs offered by the Hospital for Sick Children, the Certificate in Knowledge Mobilization offered by the University of Guelph, and the MobilizeU course offered by York University), many of those are either intended for a professional audience, are not yet a common offering across universities, have access limitations for some audiences (e.g., high costs for graduate students), or are not well-suited to addressing the questions and issues of a more immediate nature. Moreover, the few extant examples of university curricula related to KMb in the literature (e.g., Jessani et al., 2019) have limited evidence around effective course delivery. Without robust teaching tools, RIC members had witnessed how structured and focused network learning about facilitating KMb could become washed down at the point of practice, where "it's a lot of meetings—too many meetings and not enough time to do things" (I1). Commenting on this issue, one participant explained that "[what] we just really struggle with is packaging all of this information, because there's such a diversity of what knowledge mobilization is—the spectrum is so wide" (L1). Although the RIC network provided a window into the diversity of KMb approaches, packaging and communicating that diversity in ways that met research stakeholders' learning needs and interests was an enduring challenge.

On the other hand, several participants stressed how RIC's network learning provided an avenue through which to develop improved curriculum and pedagogy for KMb in Canada: "RIC has informed…the ways in which I try to teach knowledge mobilization to others, the ways in which I define knowledge mobilization, the resources that I give others" (A3). Looking ahead, several members of the RIC Professional Development committee spoke with enthusiasm about the network's ongoing efforts to develop a shared KMb curriculum to enhance positive learning outcomes within Canadian HEIs. Our final practitioner vignette illustrates how one RIC member institution is leading the charge in teaching KMb practices.

Jen Kyffin, University of Victoria. At the University of Victoria, teaching KMb practices to students, faculty, and community partners is an important approach for building individual and institutional capacity for research impact. Working together with researchers and community stakeholders, the Research Partnerships and Knowledge Mobilization unit co-develops and delivers training on foundational KMb topics, including planning and dissemination tools, communication strategies, evaluation, and ethical considerations in the co-production of knowledge. Theme-based workshops target the development of specific skills (e.g., KMb plans, info visuals) through presentations, hands-on learning activities, and facilitated discussions in which participants share their diverse expertise.

Embedding foundational components into undergraduate and graduate curriculum is another way that we teach KMb. Several of our research methodology courses now include knowledge translation activities (e.g., plain language writing assignments), and in one multidisciplinary research course—a collaboration with a provincial ministry—students, with guidance from their instructor and ministry staff, undertake research projects that directly address policy and service delivery needs. Students share their research findings with decision makers and practitioners through presentations, videos, research summaries, infographics, roundtable discussions, and other forms of KMb.

These modes of teaching KMb work well within our local context and, along with the practices and experiences of our network colleagues at other Canadian HEIs, are informing the development of a shared KMb curriculum.

Implications for Institutions. Create opportunities for researchers and external stakeholders to learn about

and practice KMb. Consider how KMb learning opportunities (e.g., building trusting relationships with external stakeholders, develop KMb competencies) can be made a central part of research training.

Questions for KMb Professionals. What pedagogical principles and approaches do you employ when facilitating researchers and external stakeholders learning about KMb? How could institutional efforts to facilitate learning about KMb complement the growing course offerings?

Discussion

As we highlighted at the outset of this article, there remains a general paucity of empirical research into institutionally embedded KMb professionals. These individuals occupy a unique position within HEIs as drivers of KMb, and as such, they are well-positioned to inform how KMb professionals and HEIs could respond to the increasing pressure from governments and research funders to achieve impact. To that end, we now discuss two propositions for how KMb professionals and HEIs

could jointly foster the future of KMb in Canada. These propositions were developed by contrasting the findings from this study with the past and present developments introduced in our review of the literature. Additionally, given our focus on both the individual and institutional dimensions of KMb via the impact literacy framework, we offer recommendations aligned with these two propositions targeting HEIs, embedded individuals (professional staff as well as academic faculty and students), and governments and research funders (Table 3). The impetus for including this latter group stems from their position of power in setting the expectations for national research systems.

A Need for Skilled KMb Professionals

In view of Canadian and international trends, there is evidence to suggest that KMb and impact will become increasingly integrated into research systems. Within the Canadian context, the NFRF, which provides just one example among a host of emerging initiatives in this area, intends to create lasting changes for scholarship and so-

Table 3

Propositions and Recommendations for Fostering the Future of KMb

Proposition *A need for:*	Individuals	HEIs	Governments and Research Funders
1. Skilled KMb professionals	***Professional Staff:*** • Cultivate awareness and understanding of the evidence base for KMb; integrate new understandings into local institutional context • Build professional competencies • Advocate for professional networks to contribute to the evidence base for KMb • Explore how to enhance institutional learning opportunities for KMb ***Academic Faculty and Students:*** • Advocate for an expanded perspective on standards of excellence that account for KMb efforts	• Advocate for KMb as an important dimension of research training • Examine institutional structures and processes for supporting and promoting KMb (e.g., working with Senate and faculty unions to develop best-practice guidelines for faculty to use during renewal, tenure, and promotion review) • Promote use of evidence-informed tools to cultivate individual and institutional impact literacy • Develop processes for integrating new understandings and practices for KMb	• Promote, through various funding programs, that excellence in scholarship is a multi-faceted construct captured by both traditional academic measures of excellence as well as measures that recognize KMb efforts • Fund and undertake evaluative efforts to strengthen the evidence base for KMb

Proposition *A need for:*	Individuals	HEIs	Governments and Research Funders
2. (Inter)national KMb research practice and connections	**Professional Staff:** • Develop an understanding of local contexts and stakeholders for KMb efforts • Examine involvement in professional learning opportunities for KMb (e.g., networks, groups, training programs) • Examine pedagogical principles and approaches for facilitating learning opportunities about KMb **Academic Faculty and Students:** • Make use of the available KMb supports within institutions • Advocate for the hiring and professional learning of KMb professionals • Value KMb in grant applications on similar footing as research plans, respecting that KMb is the "how" of achieving impact	• Identify key stakeholders involved in institutional KMb efforts • Hire and support the professional learning of KMb professionals • Establish and promote programs for connecting researchers with local, national, and international partners	• Require that research institutions support researchers in developing and implementing KMb strategies in grant applications, akin to what is done for the NSERC I2I program • At the funder level, train merit reviewers to review KMb plans • Establish a funding program to support the development of KMb capacity across Canada, akin to the NSERC IPM program that ended in 2009, with the expectation that funding responsibility will eventually be transferred to HEIs

ciety by elevating the prominence of impact throughout the research process (Government of Canada, 2021). More broadly, the impact agenda and the ongoing expansion of mission-driven and assessment-driven systems implicates both individuals and institutions in the need to build KMb capacity and capture the impacts of research (Budtz Pedersen et al., 2020; Cooper, 2017). However, prior studies find that researchers and HEIs alike are struggling in these areas (e.g., Cooper et al., 2018; Sá et al., 2011). Cain et al. (2018), for example, found that some Canadian public criminology researchers perceived KMb "as an exercise of institutional governance to demonstrate accountability to the public, while not actually holding researchers accountable for publicly disseminating their work" (p. 50). Relatedly, Cooper et al. (2018) found that, despite many Canadian education researchers declaring an interest in KMb efforts, this "has not yet been matched by the requisite capacity-building efforts and KMb infrastructure" (p. 16). Our study provides some insight into such findings.

In brief, KMb is an increasingly complex area of professional practice. It encompasses many general approaches and specific activities that differ according to factors such as the nature of the knowledge being mobilized, the connections and configurations among the individuals and organizations involved, and the actions and resources available (Davies et al., 2015). The institutionally embedded KMb professionals who participated in this study found success in their KMb efforts by cultivating a systems perspective and investing in their professional capital. Yet, even with the support of their professional networks, facilitating KMb was rarely straightforward. As suggested by the impact literacy framework, it required not only dedicated professional learning about integrating the *how* and *what* elements of achieving impact, but also an institutional environment that allocated resources toward and valued KMb. The expertise required from participants in this study—for instance, building research-practice networks and exercising a diverse set of KMb competencies—necessitated full-time and specialized work. Consistent with other recent studies (van der Graaf et al., 2019; Wye et al., 2019), our findings therefore suggest there is a need for skilled KMb professionals within HEIs.

At the same time, it will not be enough for the individual aspect of impact literacy to be taken up solely by professional staff. Our participants' essential question of "how can KMb be taught effectively?" implies that for

KMb professionals' expertise to be well utilized, it will be crucial to enhance researchers' understanding of and engagement with KMb. Again, however, individual and institutional developments are interdependent (Bayley & Phipps, 2019b), and so progress in this regard requires both researchers and HEIs to address issues such as the structural accretion (Fischman et al., 2018) that crowds out the positive aspects of KMb and impact. As an example, renewal, tenure, and promotion policies in Canadian HEIs are inconsistent regarding KMb efforts (Barreno et al., 2013). Without attention to incentive structures that encourage and reward KMb activities on similar grounds to conventional academic measures of success (e.g., peer-reviewed publications), there is little reason to expect KMb might achieve greater resonance among individual researchers.

A Need for (Inter)national KMb Research and Practice Connections

As illustrated by the international authorship of texts such as *What Works Now?* (30 authors from eight countries; Boaz et al., 2019), scholars around the world are generating insights about KMb. However, according to Powell et al. (2017, 2018), those insights have limited uptake with practitioners, signalling a rift between KMb research and practice. Findings from our analysis sustain this observation, with participants' foremost question for the field being "what does effective KMb look like?" This question is echoed by studies that consider broader analytic levels, such McLean et al.'s (2018) review of research funders' KMb efforts, which found that building the evidence base for KMb remains an urgent area for action. Although the participants in this study were regularly sharing practice-based evidence, it remained a challenge to act on that evidence when the vast majority of it had not been reviewed, compiled, and shared in systematic ways. Additionally, it appeared the disconnect between KMb research and practice followed, in part, from researchers not working on the problems that practitioners face, which may lie at the heart of recent critiques that in Canada "there remains too much simplistic thinking about how evidence moves into [policy and] practice" (Holmes & Straus, 2019, The Nature of Evidence section, para. 7). To overcome this hurdle, we suggest there is a need to cultivate stronger local, national, and international connections among KMb researchers and practitioners. Such connections would bolster the approaches used by participants in this study to enrich their practice (e.g., KMb professionals collaborating to build their social capital). However, in order to thrive, these collaborations hinge on supportive, impact literate HEIs that can acknowledge and activate individuals' impact literacy.

Conclusion

This study adds to the growing body of research that argues individuals and HEIs have a mutually constitutive relationship in the drive to build KMb capacity. The central implication of this argument is that only through their collective action can HEIs and KMb professionals foster a future for KMb where research is more likely to achieve positive influence upon wider society. At the same time, given our focus on the KMb professionals of RIC, it should be noted that our findings are, to some degree, localized to this specific case. Further research is needed into how other universities and research producing institutions (e.g., think tanks, non-governmental organizations) are building KMb capacity alongside their embedded KMb professionals.

Acknowledgements

References

Bandola-Gill, J. (2019). Between relevance and excellence? Research impact agenda and the production of policy knowledge. *Science and Public Policy*, *46*(6), 895–905. https://doi.org/10.1093/scipol/scz037

Barreno, L., Elliott, P. W., Madueke, I., & Sarny, D. (2013). *Community-engaged scholarship and faculty assessment: A review of Canadian practices*. University of Regina.

Bayley, J. E., & Phipps, D. (2019a). Building the concept of research impact literacy. *Evidence & Policy*, *15*(4), 597–606. https://doi.org/10.1332/17442641 7X15034894876108

Bayley, J. E., & Phipps, D. (2019b). Extending the concept of research impact literacy: Levels of literacy, institutional role and ethical considerations [version 2; peer review: 2 approved]. *Emerald Open Research*, *1*(14). https://doi.org/10.35241/emeraldopenres.13140.2

Bayley, J. E., & Phipps, D. (2019c). *Real impact: Institutional healthcheck workbook*. Emerald.

Bayley, J. E., Phipps, D., Batac, M., & Stevens, E. (2018). Development of a framework for knowledge mobilisation and impact competencies. *Evidence & Policy*, *14*(4), 725–738. https://doi.org/10.1332/174426417X14945838375124

Bergen, A. (2019, June 18). *Developing the Research Impact Canada (RIC) logic model and evaluation framework: A case study example* [Blog post]. http://researchimpact.ca/

Best, A., & Holmes, B. (2010). Systems thinking, knowledge and action: Towards better models and methods. *Evidence & Policy*, *6*(2), 145–159. https://doi.org/10.1332/174426410X502284

Boaz, A., Davies, H., Fraser, A., & Nutley, S. (Eds.). (2019). *What works now? Evidence-informed policy and practice*. Policy Press.

Boswell, C., & Smith, K. (2017). Rethinking policy 'impact': Four models of research-policy relations. *Palgrave Communications*, *3*(1), 1–10. https://doi.org/10.1057/s41599-017-0042-z

Budtz Pedersen, D., Grønvad, J., & Hvidtfeldt, R. (2020). Methods for mapping the impact of social sciences and humanities. *Research Evaluation*, *29*(1), 4–21. https://doi.org/10.1093/reseval/rvz033

Cain, K., Shore, K., Weston, C., & Sanders, C. B. (2018). Knowledge mobilization as a tool of institutional governance: Exploring academics' perceptions of "going public." *Canadian Journal of Higher Education*, *48*(2), 39–54. https://doi.org/10.47678/cjhe.v48i2.188072

Campbell, C., Pollock, K., Briscoe, P., Carr-Harris, S., & Tuters, S. (2017). Developing a knowledge network for applied education research to mobilise evidence in and for educational practice. *Educational Research*, *59*(2), 209–227. https://doi.org/10.1080/00131881.2017.1310364

Canadian Foundation for Healthcare Improvement. (n.d.). *Our story*. https://www.cfhi-fcass.ca/about/our-story

Cooper, A. (2014). Knowledge mobilisation in education across Canada: A cross-case analysis of 44 research brokering organizations. *Evidence & Policy*, *10*, 29–59. https://doi.org/10.1332/174426413X662806

Cooper, A. (2015). A tool to assess and compare knowledge mobilization efforts of faculties of education, research brokering organizations, ministries of education, and school districts. *Brock Education Journal*, *25*(1), 5–18. https://doi.org/10.26522/brocked.v25i1.441

Cooper, A. (2017). How are educational researchers interacting with end-users to increase impact? *Engaged Scholar Journal*, *3*(2), 99–122. https://doi.org/10.15402/esj.v3i2.335

Cooper, A., Rodway, J., & Read, R. (2018). Knowledge mobilization practices of educational researchers across Canada. *Canadian Journal of Higher Education*, *48*(1), 1–21. http://journals.sfu.ca/cjhe/index.php/cjhe

Cvitanovic, C., Cunningham, R., Dowd, A.-M., Howden, S. M., & van Putten, E. I. (2017). Using social network analysis to monitor and assess the effectiveness of knowledge brokers at connecting scientists and decision-makers: An Australian case study. *Environmental Policy and Governance*, *27*, 256–269. https://doi.org/10.1002/eet.1752

Davies, H. T., Powell, A. E., & Nutley, S. M. (2015). Mobilising knowledge to improve UK health care: learning from other countries and other sectors – A multimethod mapping study. *Health Services and Delivery Research*, *3*(27), 1–190. https://doi.org/10.3310/hsdr03270

DeCuir-Gunby, J., Marshall, P. L., & McCulloch, A. W. (2011). Developing and using a codebook for the analysis of interview data: An example from a professional development research project. *Field Methods*, *23*(2), 136–155. https://doi.org/10.1177/1525822X10388468

Doyle, J. (2018). Reconceptualising research impact:

reflections on the real-world impact of research in an Australian context. *Higher Education Research and Development*, *37*(7), 1366–1379. https://doi.org/10.1080/07294360.2018.1504005

Edwards, D. M., & Meagher, L. R. (2020). A framework to evaluate the impacts of research on policy and practice: A forestry pilot study. *Forest Policy and Economics*. Advance online publication. https://doi.org/10.1016/j.forpol.2019.101975

Ellingson, L. L. (2011). *Engaging crystallization in qualitative research*. Sage.

Federation for the Humanities and Social Sciences. (2017). *Approaches to assessing impacts in the humanities and social sciences*. www.ideas-idees.ca

Fischman, G. E., Anderson, K. T., Tefera, A. A., & Zuiker, S. J. (2018). If mobilizing educational research is the answer, who can afford to ask the question? An analysis of faculty perspectives on knowledge mobilization for scholarship in education. *AERA Open*, *4*(1), 1–17. https://doi.org/10.1177/2332858417750133

Glaser, B. G., & Strauss, A. L. (1967). *The discovery of grounded theory: Strategies for qualitative research*. Aldine.

Government of Canada. (2021). *2022 transformation: Merit indicators for the review of applications*. https://www.sshrc-crsh.gc.ca/funding-financement/nfrf-fnfr/transformation/2022/merit_indicators-indicateurs_du_merite-eng.aspx

Greenhalgh, T., Raftery, J., Hanney, S., & Glover, M. (2016). Research impact: A narrative review. *BMC Medicine*, *14*(78), 1–16. https://doi.org/10.1186/s12916-016-0620-8

Hargreaves, A., & Fullan, M. (2012). *Professional capital: Transforming teaching in every school*. Teachers College Press.

Hefei Statement. (2013). *On the ten characteristics of contemporary research universities*.

Hill, S. (2016). Assessing (for) impact: Future assessment of the societal impact of research. *Palgrave Communications*, *2*, 1–7. https://doi.org/10.1057/palcomms.2016.73

Holmes, B., & Straus, S. (2019). Using evidence in Canada. In A. Boaz, H. Davies, A. Fraser, & S. Nutley (Eds.), *What works now? Evidence-informed policy and practice* [Kindle version]. Policy Press.

Jessani, N. S., Hendricks, L., Nicol, L., & Young, T. (2019). University curricula in evidence-informed decision making and knowledge translation: Integrating best practice, innovation, and experience for effective teaching and learning. *Frontiers in Public Health*, *7*, 1–13. https://doi.org/10.3389/fpubh.2019.00313

Jessani, N., Kennedy, C., & Bennett, S. (2016). The human capital of knowledge brokers: An analysis of attributes, capacities and skills of academic teaching and research faculty at Kenyan schools of public health. *Health Research Policy and Systems*, *14*, 1–13. https://doi.org/10.1186/s12961-016-0133-0

Jull, J., Morton-Ninomiya, M., Compton, I., & Picard, A. (2018). Fostering the conduct of ethical and equitable research practices: The imperative for integrated knowledge translation in research conducted by and with indigenous community members. *Research Involvement and Engagement*, *4*, 1–9. https://doi.org/10.1186/s40900-018-0131-1

Knight, C., & Lyall, C. (2013). Knowledge brokers: The role of intermediaries in producing research impact. *Evidence & Policy*, *9*(3), 309–316. https://doi.org/10.1332/174426413X14809298820296

Leiden Statement. (2014). T*he role of the social sciences and humanities in the global research landscape*.

MacGregor, S., & Cooper, A. (2022). A framework to combine mixed methods integration and developmental evaluation to study complex systems. *Canadian Journal of Program Evaluation*, *36*(3), 1–25. https://doi.org/10.3138/cjpe.71488

MacGregor, S., & Phipps, D. (2020). How a networked approach to building capacity in knowledge mobilization supports research impact. *International Journal of Education Policy and Leadership*, *16*(6), 1–22. https://doi.org/10.22230/ijepl.2020v16n6a949

Mackillop, E., Quarmby, S., & Downe, J. (2020). Does knowledge brokering facilitate evidence-based

policy? A review of existing knowledge and an agenda for future research. *Policy & Politics*, *48*(2), 335–353. https://doi.org/10.1332/030557319X15740848311069

Mallidou, A. A., Atherton, P., Chan, L., Frisch, N., Glegg, S., & Scarrow, G. (2018). Core knowledge translation competencies: A scoping review. *BMC Health Services Research*, *18*, 1–15. https://doi.org/10.1186/s12913-018-3314-4

McLean, R. K. D., Graham, I. D., Tetroe, J. M., & Volmink, J. A. (2018). Translating research into action: An international study of the role of research funders. *Health Research Policy and Systems*, *16*(44), 1–15. https://doi.org/10.1186/s12961-018-0316-y

Neal, J. W., Neal, Z. P., & Brutzman, B. (2021). Defining brokers, intermediaries, and boundary spanners: A systematic review. *Evidence & Policy*. Advance online publication. https://doi.org/10.1332/174426420X16083745764324

Nutley, S. M., Walter, I., & Davies, H. T. O. (2007). *Using evidence: How research can inform public services*. Policy Press.

Patton, M. Q. (2002). *Qualitative research and evaluation methods* (3rd ed.). Sage.

Patton, M. Q. (2011). *Developmental evaluation: Applying complexity concepts to enhance innovation and use*. Guilford Press.

Pearce, S., & Evans, D. (2018). The rise of impact in academia: Repackaging a long-standing idea. *British Politics*, *13*(3), 348–360. https://doi.org/10.1057/s41293-018-0079-7

Powell, A., Davies, H., & Nutley, S. (2017). Missing in action? The role of the knowledge mobilisation literature in developing knowledge mobilisation practices. *Evidence & Policy*, *13*(2), 201–223. https://doi.org/10.1332/174426416X14534671325644

Powell, A., Davies, H. T. O., & Nutley, S. M. (2018). Facing the challenges of research-informed knowledge mobilization: 'Practising what we preach'? *Public Administration*, *96*(1), 36–52. https://doi.org/10.1111/padm.12365

Preskill, H., & Beer, T. (2012). *Evaluating social innovation*. Center for Evaluation Innovation.

Research Impact Canada. (2018). *Research Impact Canada Network strategic operational plan*. http://researchimpact.ca/wp-content/uploads/2018/07/RIC-Strategic-Plan-2017-2020-FINAL.pdf

Richardson, L. (2000). Writing: A method of inquiry. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of qualitative research* (2nd ed., pp. 516–529). Sage.

Sá, C., Faubert, B., Edelstein, H., & Qi, J. (2012). Understanding how organisations use the internet to mobilise knowledge: Findings from the field of education. *International Journal of Management in Education*, *6*(1/2), 1–21. https://doi.org/10.1504/IJMIE.2012.043998

Sá, C., Li, S. X., & Faubert, B. (2011). Faculties of education and institutional strategies for knowledge mobilization: An exploratory study. *Higher Education*, *61*, 501–512. https://doi.org/10.1007/s10734-010-9344-4

Social Sciences and Humanities Research Council. (2019, June 17). *Guidelines for effective knowledge mobilization*. https://www.sshrc-crsh.gc.ca/funding-financement/policies-politiques/knowledge_mobilisation-mobilisation_des_connaissances-eng.aspx

Straus, S. E., Brouwers, M., Johnson, D., Lavis, J. N., Légaré, F., Majumdar, S. R., McKibbon, K. A., Sales, A. E., Stacey, D., Klein, G., & Grimshaw, J. (2011). Core competencies in the science and practice of knowledge translation: Description of a Canadian strategic training initiative. *Implementation Science*, *6*, 1–7. https://doi.org/10.1186/1748-5908-6-127

Strauss, A., & Corbin, J. M. (1990). *Basics of qualitative research: Grounded theory procedures and techniques*. Sage.

van der Graaf, P., Shucksmith, J., Rushmer, R., Rhodes, A., & Welford, M. (2019). Performing collaborative research: A dramaturgical reflection on an institutional knowledge brokering service in the North East of England. *Health Research Policy and Systems*, *17*, 1–9. https://doi.org/10.1186/s12961-019-0449-7

Wilkinson, C. (2019). Evidencing impact: A case study of UK academic perspectives on evidencing research impact. *Studies in Higher Education*, *44*(1), 72–85. https://doi.org/10.1080/03075079.2017.1339028

Williams, K., & Grant, J. (2018). A comparative review of how the policy and procedures to assess research impact evolved in Australia and the UK. *Research Evaluation*, *27*(2), 93–105. https://doi.org/10.1093/reseval/rvx042

Wye, L., Cramer, H., Farr, M., West, N. C., Carey, J., Robinson, R., & Anthwal, R. (2019). Collective knowledge brokering: The model and impact of an embedded team. *Evidence & Policy*. Advance online publication. https://doi.org/10.1332/174426419X15468577044957

Contact Information

Stephen MacGregor
stephen.macgregor@utoronto.ca

Notes

1   The U15 is a group of 15 research-intensive Canadian universities, and the Global Network is an international group of networks of research-intensive universities (see http://u15.ca/international).
2   Gender-neutral pronouns are used throughout.