

Going for Broke: A Multiple-Case Study of Brokerage in Education

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Although the central role of educational intermediaries that can connect research and practice is increasingly appreciated, our present understanding of their motivations, products, and processes is inadequate. In response, this multiple-case study asks how and why three large-scale intermediaries—Edutopia, the Marshall Memo, and Usable Knowledge—are engaging in brokerage activities, and compares the features of the knowledge they seek to share and mobilize. These entities were deliberately chosen and anticipated to reveal diversity. Multiple data sources were analyzed based primarily upon Ward’s knowledge mobilization framework. These entities contrasted widely, especially in relation to core knowledge dimensions, enabling us to identify two distinct brokerage types. To conclude, theoretical (how to conceptualize brokerage) and practical (how to foster interactive knowledge exchange) implications are presented. This study also reveals certain innovative mobilization approaches, including skillful use of social media and the production of videos depicting how and why to adopt particular strategies.

Keywords: *knowledge mobilization, brokerage, boundary crossing, boundary objects*

A transnational push to strengthen educational research and practice (R-P) connections is under way (Brown, Schildkamp, & Hubers, 2017; Coldwell et al., 2017; Hammersley-Fletcher & Lewin, 2015), and recent research supports that teaching and learning improvements can occur when educators figure research evidence into their professional reasoning (Goldacre, 2013; Mincu, 2014; Rose et al., 2017; Supovitz, 2015). However, it has proven challenging to broadly and substantively strengthen R-P connections. Several barriers are recognized, and at root are substantial cultural and structural divides between those principally residing in traditional research production and research use contexts (Caplan, 1979). Accordingly, intermediaries that can join these “worlds” are essential (Daly, Finnegan, Moolenaar, & Che, 2014).

Educational intermediaries are increasing in both number and sophistication, and their key knowledge-brokering function is increasingly appreciated (Cooper, 2014; Tseng, 2012). However, scholars have largely focused upon those intermediaries that aim at influencing state and national policy (e.g., policy-focused think tanks and advocacy organizations promoting market-based reforms; Lubienski, Scott, & DeBray, 2011) rather than those directly engaging with educators. The latter entities thus operate in relative obscurity and are, consequently, both poorly understood and themselves unable to consult a substantive research base regarding how to perform this work.

To address this knowledge gap, in this paper we analyze and compare three such intermediaries—Edutopia, Kim Marshall’s Marshall Memo, and the Harvard Graduate School of Education’s (HGSE) Usable Knowledge— aspiring to understand their activities to broker research and other knowledge to educational practitioners. Each has attracted a sizeable following, expressly aims at educators, claims (at least partially) to be interested in sharing research and research-based knowledge, and strives ultimately to mobilize knowledge to improve core practice. Accordingly, in this multiple-case study we draw from Ward (2017) and Hubers and Poortman (2017) to explore the following:

1. Why are these entities mobilizing knowledge?
2. What and whose knowledge are they mobilizing?
3. What are the features of their knowledge mobilization (KMb) approaches?

As anticipated, these entities varied widely in terms of both the *content* and the *process* features of their KMb approaches. Beyond our expectations, closely examining these entities revealed two distinctive types of brokerage. This has enabled us to reflect on the different profiles and patterns that emerged from our analysis (see the Discussion section of the paper). In so doing, we expand upon existing frameworks, offer a new way to conceptualize knowledge brokerage, and



attempt to push the conversation forward regarding how interactive research engagement might be fostered and expanded in education.

Background: R-P Disconnects, and Possible Roles and Functions for Brokers

Significant barriers to R-P connections involve issues of accessibility, relevance, and timeliness (Hering, 2016). Concerning access, academic researchers usually passively share their work, merely pursuing publication via scholarly outlets (Cook, Cook, & Landrum, 2013). However, K–12 educators do not typically read this work (not least because most journals sit behind paywalls; Saunders, 2015) or frequent the same convenings. Much research also lacks relevant, actionable information for educators (Lysenko, Abrami, Bernard, Dagenais, & Janosz, 2014). Concerning timeliness, even actionable information might be unavailable or outside awareness when needed (Sarewitz & Pielke, 2007). These issues and others (Lysenko et al., 2014; Malin, 2016) cannot be fully addressed without some form of intermediation.

United States–based efforts to bridge R-P gaps in education are not new, with most entailing the development of intermediaries (e.g., the Regional Educational Laboratories, launched in the 1960s, and the What Works Clearinghouse, begun in 2002; Farley-Ripple, Tilley, & Tise, 2017). Across time, governmental support for such initiatives has fluctuated. Educators’ demand for readily accessible information has also sometimes driven intermediaries’ development. The online newspaper *EdNC*, for example, arose from superintendents’ collective efforts (Farley-Ripple et al., 2017). The Marshall Memo, a subscription-based summary of research and ideas, provides both a for-profit and demand-driven example (Malin & Paralkar, 2017).¹ In a policy context preferencing accountability goals, and given “evidence-based” or “research-based” requirements within federal education policy, educators’ desires for such information may be at historical highs (Farley-Ripple et al., 2017).

Some intermediaries aimed at bridging R-P (or research and policy) have sprung neither from government backing nor in response to educators’ demands but instead from particular visions. For example, entities such as the philanthropic Carnegie Foundation for the Advancement of Teaching, whose directors trust that research can improve education and wish to ameliorate disconnects, have assumed brokering positions. Related, recent years have seen a proliferation of advocacy organizations and think tanks that have demonstrated acumen at influencing policy (Rich, 2005; Malin & Lubienski, 2015), a trend Anderson, De La Cruz, and López (2017) suggest has coaxed researchers, universities, and education colleges (i.e., traditional *knowledge producers*) to consider whether/how to mobilize knowledge. Universities increasingly are challenged to operate within

the economic/market social field (Bourdieu, 2005; Brown, 2013) as public funding has declined, which complicates their activities (Anderson et al., 2017). Accordingly, scholars (e.g., Dudo, 2015; Yettick, 2015) have noted university/college public information officers’ (PIOs) intensified efforts to extend their organizations’ research influence via news releases, social media, and other communications. Yettick (2015) found media coverage of education rarely drew from education research and, when it did, journalists frequently encountered it via university news releases. PIOs, therefore, are key intermediaries between researchers and targeted “end users”; although typically targeting journalists, they also might aim to connect with practitioners, as with Usable Knowledge.

To summarize, educational knowledge brokering by intermediaries is crowded, competitive, and varied, a situation appropriately commanding attention in the “policy world” (Brown, 2013) but much less focus toward how intermediaries are operating relative to core practice. Nevertheless, some research exists regarding government-funded, educational practice–focused intermediaries and brokering tools (see Farley-Ripple et al., 2017). The Regional Laboratories were evaluated in the 1970s to 1980s, with each study concluding they were esteemed for their brokering functions (Farley-Ripple et al., 2017). The National Diffusion Network (NDN; which operated from 1974 to 1995) was similarly respected (Emrick & Agarwala-Rogers, 1978; Crandall, 1989; Huberman & Miles, 1984). The NDN, which brokered practitioner-based research, also demonstrates how these organizations can focus differently, operating from different premises.

Synthesizing across these and other studies, Farley-Ripple et al. (2017, p. 3) conclude that “brokering was central to research utilization” and that “organizational change requires systematic professional development.” The latter conclusion aligns with recent research disclosing that if one’s objective is deep research engagement and organizational change, brokers should move beyond dissemination strategies, aiming to foster meaningful exchange (Contandriopoulos, Lemire, Denis, & Tremblay, 2010).

On the basis of the above analysis, we employ the following definitions:

- *Knowledge mobilization* is one of several terms related to knowledge creation, movement, and sharing. We follow Davies, Powell, and Nutley (2015), who favored this term, applying it as “a shorthand for the range of active approaches deployed to encourage the creation and sharing of research-informed knowledge” (p. 2).
- *Brokerage* is “a dynamic and complex set of actors, activities, motivations within which research is exchanged, transformed, and otherwise communicated” (Farley-Ripple et al., 2017, p. 13). This study focuses upon brokerage (vs. individual brokers).

- *Boundary objects* “both inhabit several intersecting worlds and satisfy the informational requirements of each of them” and are “both plastic enough to adapt to local needs and the constraints of the several parties employing them, yet robust enough to maintain a common identity across sites” (Star & Griesemer, 1989, p. 393).

How Do Brokers Mobilize Knowledge?

Recent scholarship regarding R-P brokering in education has provided initial insights into their structure and function, organizational features, roles and activities, and favorable attributes (see Farley-Ripple et al., 2017). A *structural* emphasis draws from Burt’s (2004) work regarding structural holes and conceives of brokers as bridges or boundary spanners between actors/entities that would otherwise be separated. This emphasis thus recommends the use of network-based approaches to understand R-P relationships. Neal, Neal, Kornbluh, Mills, and Lawlor (2015), emphasizing structure, observed a diverse network of educational brokers and documented multiple paths/steps between R-P. Likewise, Malin and Paralkar (2017) traced content featured within the Marshall Memo, noting multistage chains in which brokers referred other brokers’ work, and so on. For the present study, especially concerning Research Question 3, we analyze these entities’ capacities to cross R-P boundaries, considering whether/how they are connecting R-P networks by way of boundary objects (Akkerman & Bakkar, 2011; Star & Griesemer, 1989) they have created. Hubers and Poortman (2017) observe that although the most effective approach to knowledge sharing is active personal engagement, it is rarely employed due to logistical and resource issues. Consequently, written personal communications are often used instead.

Exemplifying an emphasis on *function*, Cooper (2014) identified research-brokering organizations based on their organizational missions (i.e., whether they expressly aimed to function as such). Cooper also provides distinguishing *organizational features* (e.g., nonprofit, for profit, and governmental). In this study, such features are assumed to be salient and moderately predictive of broker behaviors/attributes, although research has not explored broker differences by type nor how these features might affect brokers’ stature and influence (Farley-Ripple et al., 2017).

Research has begun to clarify brokers’ activities and attributes. Ward, House, and Hamer (2009) differentiate brokers relative to whether their activities emphasize knowledge management, linkage/exchange, and/or capacity building. Neal et al. (2015) drew from Gould and Fernandez’s (1989) broker typology and identified all five types (e.g., gatekeeper, liaison) in U.S. education. Finally, research within and beyond education has sought to identify effective brokers’ attributes. Trustworthiness has been identified across multiple studies (see Farley-Ripple et al., 2017).

Perhaps most fundamental—but underexamined—is to consider how brokers vary regarding *what* and *whose* knowledge they feature (Ward, 2017). This study follows Ward and colleagues (Ward, 2017; Ward et al., 2009), who stress that brokerage might include multiple types of evidence, generated by multiple groups. We also draw from Hubers and Poortman (2017), who suggest specific content shared should flow from the broker’s unique vision. Both views cohere with Gibbons et al.’s (1994) and Nowotny, Scott, and Gibbons’ (2003) concept of “Mode 2,” used to highlight changing trends in knowledge production. In particular, Mode 2 suggests a shift from the traditional academic disciplinary-based linear modes of production (Mode 1) to one where knowledge is generated in an application context. Related to Mode 2 knowledge is the concept of socially robust knowledge. Gibbons (1999) suggests “socially robust” knowledge is that which has not simply originated from quality research but is also likely to be understood and socially accepted. Altogether, we expect that intermediaries’ variations on what and whose knowledge stem from unique premises and visions. We further expect these differences will hold implications relative to brokers’ reach, popularity, and ultimate success in moving knowledge to action.

Conceptual Framework

To address our research questions, we primarily relied upon Ward’s (2017) KMb framework. We also analyzed selected study data relative to Hubers and Poortman’s (2017) three suggested principles for effective boundary crossing in education.

Ward’s (2017) framework developed out of her cross-disciplinary analysis of 47 existing KMb models. It is organized around four questions: “Why is knowledge being mobilised? Whose knowledge is being mobilised? What type of knowledge is being mobilised? How is knowledge being mobilised?” (p. 1). Answers to these questions form 16 subcategories (Appendix A). Relative to *what* knowledge, for example, Ward identified three categories and found some models exclusively mobilize one type and others address a mixture: scientific/factual knowledge, technical knowledge, and practical wisdom (a mixture, we argue, means brokerage efforts are more likely to result in applicable knowledge). Regarding *whose* knowledge is mobilized, Ward discerned five categories and here as well noted that sometimes multiple groups are featured: professional knowledge producers, frontline practitioners, members of the public/service users, decision makers, and product/program developers. We argue knowledge is more likely to become socially robust when/if various stakeholders are drawn upon. Ward’s analytic categories were anticipated to support understanding these entities, and any detected differences were anticipated to hold meaning (e.g., whom does *x* entity highlight as expert, and what type(s) of knowledge does *x* entity preference?).

To further address questions regarding *what* and *how* knowledge is mobilized, we drew from Hubers and Poortman (2017). Describing effective professional learning networks in education, these authors identified boundary crossing as essential and advanced three principles, framed as questions, for effective knowledge mobilization. They are summarized below:

1. Given the vision for boundary crossing, what content should be shared? For instance, should the knowledge pertain to a specific subject, programs or new approaches, policy, background information, and so on?
2. At what level of detail should knowledge be shared? Specifically, these authors note brokers often remain stuck at the level of informing teachers about certain activities or describing these activities' outcomes. The next level of mobilization, however, involves creating "how-to" schemas and/or explaining underlying principles behind certain strategies (Why should you do it? Why should it work?). Ultimately, they argue, addressing both levels is superior.
3. What knowledge-sharing activities could be used? It is most effective to share knowledge via active personal engagement. This type of activity is preferred because it gives educators a concrete idea about what is expected. However, it is scarcely employed because of the level of resources required to achieve change at scale. Besides providing active personal engagement, personal communication can be used (e.g., formal presentations, updates during a meeting, even lunch conversations). However, the most-often-chosen activity, yet least likely to be effective, is written communication (e.g., an e-mail or a staff newsletter item). Written text offers a relatively fast way to reach all colleagues, but colleagues will not always read it and/or may not understand it as intended.

We read behind this discussion an implicit acknowledgment that boundary objects (e.g., flexible artifacts functioning instead of or in addition to personal connections; Star, 1989) are fundamental to knowledge mobilization. Professionals need time to come to understand new knowledge being brokered, and artifacts can enable knowledge to move across temporal and spatial boundaries, providing them with opportunities to visit/revisit it.

Methods

This multiple-case study treated Edutopia, the Marshall Memo, and Usable Knowledge as cases of educational KMB. Multiple-case design has been appraised as sometimes yielding more robust, compelling findings (Herriott & Firestone,

1983; Yin, 2014) than single-case design, enabling researchers to investigate whether/how findings vary across contexts (Yin, 2014). This study addressed three research questions, concerning (a) *why* these entities are mobilizing knowledge, (b) *what* and *whose* knowledge they are mobilizing, and (c) *how* they are doing so. We selected prominent U.S.-based brokers with explicit aims directed toward educational practice and core activities including dissemination and/or exchange of at least some research and/or research-based knowledge. We selected theoretically diverse cases (Yin, 2014) while also anticipating these organizations' different types and features would moderately predict their activities and processes. As a research team, we aimed to develop a robust and trustworthy chain of evidence (Lincoln & Guba, 1985; Yin, 2014) regarding these entities' features relative to study questions. Accordingly, this study drew from multiple sources of evidence (described below), aiming to achieve data triangulation (Patton, 2002). The first author served as lead data analyst, with the second and third authors serving primarily as "critical friends." As such, in keeping with Robson (2002), a process of reflection, interpretation, and challenge was undertaken to enable the research team to consider our growing understanding of the data, to assess agreement with the coding, to gauge the strength of the claims being made, and to shape and reinforce the final selections.

Broadly, the study proceeded as follows: First, initial understandings of the broad features and activities of each entity were developed (e.g., origins, explicit missions/visions, organization, staffing, social media activity; Cooper, 2014). This necessitated review of materials found on each entity's website and consultation of additional materials, such as *Edutopia: Success Stories for Learning in the Digital Age* (Chen & Armstrong, 2002) and a *Harvard Crimson* article (Gilbert, 2014) describing Usable Knowledge's impetus. Next, we built and analyzed a data set addressing at least three consecutive months' worth of material (e.g., press releases, summaries, Facebook posts, videos) that each entity created and/or hosted and shared, via social media and/or through their regular products or newsletters (Appendix B). For Edutopia, which is distinctly active across social media platforms and produces numerous e-newsletters, we focused upon content shared via Facebook and YouTube. Identified materials were then classified (beginning with Ward's [2017] categories) according to *what* and *whose* knowledge was being mobilized and *how* it was occurring. Further examining the *how* question included global assessments of the nature and frequency of each entity's communications, for example, also reviewing Edutopia's presence on Pinterest and studying Usable Knowledge's Twitter activities. Finally, we drew from these findings, combining/comparing with entities' explicit vision/purpose statements, to discern *why* they were mobilizing knowledge.

Addressing *whose* knowledge was straightforward, requiring identification of authors' (and/or featured experts' in videos or when written materials highlighted someone

TABLE 1
The Entities Categorized According to Five Dimensions

| Entity | Type | Origin target | Audience | Size (staff) | Social media presence |
|------------------|------------|---------------|------------------|--------------|-----------------------|
| Edutopia | Nonprofit | 1991 | T, P, A, S, Pub | 25 | Yes (high) |
| Marshall Memo | For profit | 2003 | A, T | 1 | No |
| Usable Knowledge | Nonprofit | 2014 | T, P, A, HE, Pol | 2 | Yes |

Note. T = teachers; P = parents; A = administrators; S = students; Pub = public; HE = higher education professionals; Pol = policy.

else’s knowledge) names, roles, and institutional affiliations. These individuals were then grouped, initially according to Ward’s (2017) framework and subsequently with additional categorizing based on emergent discoveries. For example, one entity frequently highlighted journalists’ material, a type not identified by Ward. Addressing *what* knowledge meant making global appraisals (per Ward) regarding which of three knowledge types each entity was prioritizing through its content. Working from individual items outward, we ultimately rendered macro appraisals of the knowledge types each entity typically featured. We also drew from Hubers and Poortman (2017) to evaluate entities’ characteristic depth of content (e.g., informational vs. how-to schemas). To address *how* knowledge was shared first entailed classifying the entities’ dominant approach relative to Ward’s three analytic categories. We also drew from, then extended beyond, Hubers and Poortman (e.g., their distinction between written material and personal connections), noting distinguishing process features for each entity. Addressing *why* these entities mobilize knowledge necessitated the incorporation of several sources of evidence (especially including vision/purpose statements), integrated/reconciled with other findings. Appendix B includes examples to support analytic distinctions, by research question and entity.

Limitations

This study includes certain limitations. First, although multiple-case studies can facilitate theoretical generalization (Yin, 2014), their ability to statistically generalize findings is limited. Nonetheless, several authors have argued that the ability to infer rather than generalize is sufficient. Punch (2005) also contends case studies aid generalization by providing propositions or concepts that can be subsequently tested. This study’s cases are also skewed high on visibility and reach. Consequently, although the cases may be noteworthy and helpful in understanding different methods and processes, this study does not provide complete information about educational Kmb. Second, due to the manner in which this study unfolded, our windows of data collection for the three entities were not uniform. With uniform data collection, our entity-to-entity comparisons would have been cleaner (e.g., not subject to the possibility that at times they were

responding to different events or news cycles, etc.). We propose that this issue is minor, because these entities did not appear to be considerably news cycle driven. Finally, while this study substantially illuminates the entities’ motivations and activities, its design does not enable full accounting of their complex drives, subtle biases, and so on.

Educational Kmb: Cases

This section profiles each entity (also see Table 1). In the next section, findings are presented across cases, by research question.

Edutopia is “a comprehensive website and online community that increases knowledge, sharing, and adoption of what works in K–12 education” (George Lucas Educational Foundation [GLEF], 2017). Six core educational principles/strategies are emphasized: “project-based learning, comprehensive assessment, integrated studies, social and emotional learning, educational leadership and teacher development, and technology integration” (GLEF, 2017). Edutopia had initially been focused upon the use/application of technology within education, and although this remains a priority, the organization’s foci have expanded (Edutopia, 2016). It is part of GLEF, a nonprofit foundation established in 1991 by filmmaker George Lucas (GLEF, 2017). Lucas Education Research (LER), the other division of GLEF, is “dedicated to building evidence for what works in K–12 education” (GLEF, 2017). GLEF funds research through LER. GLEF is governed by a 10-member board of directors, and its executive director (since 2010) is Cindy Johanson. Twenty core staff members make up the Edutopia team (C. Johanson, personal communication, March 21, 2018).

Since spring 2010, Edutopia has taken an online-only approach. Content can be accessed free of cost (Manzo, 2010) from its website (edutopia.org, initiated in 1994). Previously, it published a subscription-based magazine, *Edutopia* (2004–2010), and it also developed and distributed instructional/pedagogical videos. The website contains abundant and organized material. From the site, one can also access YouTube videos it has created and could, until recently, participate in community forum discussions (Edutopia recently retired this online community, noticing comments/community were increasingly occurring on social

media platforms; C. Johanson, personal communication, March 21, 2018). The website also describes how someone might write (e.g., a blog post) or provide multimedia that Edutopia would consider hosting. Edutopia's social media presence is large and broad, including on Facebook (over 1.1 million followers on September 6, 2017), Twitter (971,000 followers), Instagram (85,300 followers), Pinterest (104,000 followers), and YouTube (67,300 subscribers).

The Marshall Memo, "A Weekly Round-Up of Important Ideas and Research in K-12 Education," has been owned/published since 2003 by Kim Marshall. He claims it is the third most circulated U.S. educational publication, behind only *Educational Leadership* and *American Educator*. It is designed to "to keep principals, teachers, superintendents, and other educators very well-informed on current research and best practices" (Marshall Memo LLC, 2017a). Initially aimed at school principals, its readership and focus have grown (Malin & Paralkar, 2017). He subscribes to more than 60 publications (Marshall Memo LLC, 2017b) and scans many articles before each week selecting "5–10 that have the greatest potential to improve teaching, leadership, and learning" (Marshall Memo LLC, 2017a). He develops summaries, providing e-links to original articles when possible. He also highlights a few quotes and usually concludes with some "short items." It is concise overall, intended to be readable within 20 minutes. It is delivered by e-mail to subscribers. Marshall also now produces a podcast version. Subscribers also have access to a website members-only area that includes access to past articles and a searchable archive and allows subscribers to see items/articles Marshall has identified as "classics." An individual subscription costs \$50 per year, and Marshall offers organizational pricing. There is currently no social media presence associated with it.

Marshall works semi-independently, with a part-time assistant and informal support by his spouse. He worked for decades in Boston Public Schools, including 15 years as principal. Now, he also operates as an educational consultant, annually delivering "around 100" workshops, among other activities (K. Marshall, personal communication, April 13, 2017). He holds undergraduate, master's, and honorary doctorate degrees from Harvard.

Usable Knowledge describes itself as "a trusted source of insight into what works in education—translating new research into easy-to-use stories and strategies for teachers, parents, K–12 leaders, higher ed professionals, and policy-makers" (President and Fellows of Harvard College, 2017). Its listed staff at HGSE are Bari Walsh, senior editor, and Leah Shafer, staff writer. All content, including written posts and short videos, are hosted at <https://www.gse.harvard.edu/uk>. Usable Knowledge also disseminates a free monthly e-newsletter to subscribers. It has a Twitter presence (@UKnowHGSE) with 9,042 followers as of September 7, 2017. Its Twitter profile indicates its affiliation and focus: "From Harvard University, connecting @HGSE research to practice." HGSE

has a large social media presence (e.g., 150,000 Facebook and 123,000 Twitter followers) and frequently highlights Usable Knowledge and its contents. For instance, on July 14, 2017, HGSE retweeted Usable Knowledge and added, "Follow @UKnowHGSE for strategies on how to improve the school experience for students and teachers alike" (HGSE, 2017a). The *U.S. News and World Report* (2017) appraises HGSE as the nation's top-ranked education school. HGSE is part of Harvard University, an elite private higher education institution.

Mobilizing Knowledge: Types, Sources, Features, and Reasons

This section addresses the study's three research questions, concerning the types and sources of knowledge each entity shares, features of their KMB approaches, and their motivations for mobilizing knowledge. These entities contrast sharply along most dimensions, especially regarding the knowledge they share, although certain commonalities are also noted.

Whose knowledge is mobilized? On this dimension, contrasts are extreme. First, to summarize, Usable Knowledge primarily features professional knowledge producers and secondarily draws from other organizational affiliates, such as HGSE students (outside Ward's [2017] framework); Edutopia predominately draws from practicing educators (to Ward, front-line practitioners); and the Marshall Memo draws primarily from professional knowledge producers, then from practicing educators and from journalists (outside Ward's framework).

Usable Knowledge shows the most traditional orientation, primarily amplifying academics' voices (especially, HGSE-affiliated producers): 21 of 25 analyzed articles (84%) feature research and/or commentary by HGSE faculty members or affiliates. A mild exception relates to their attachment to HGSE's One and All project, begun in February 2017 and emphasizing "Strategies to Protect Students, Reject Bullying, and Build Communities Where Everyone Thrives." Using the #OneAllHGSE tag, among other approaches, Usable Knowledge and HGSE have shared some strategies and guidance created outside Harvard. A Usable Knowledge article (HGSE, 2017b) article, for instance, links to resources from Teaching Tolerance and other entities, while simultaneously highlighting HGSE materials. Usable Knowledge and HGSE also have encouraged educators' advice and resources, noting they would share "as much as we can."

In the Marshall Memo, nearly 50% of material highlighted—via Marshall's summary items—were authored or coauthored by academics or other researchers (professional knowledge producers), and 23% included at least one current or former frontline practitioner. Also, 12.9% of highlighted articles were written by education journalists or editors, and 7.8% were written by non-education-specific journalists (both outside Ward's [2017] framework).

Edutopia sharply contrasts, predominately sharing knowledge produced by educators. For instance, 16 of 20 (80%) Edutopia-produced YouTube videos we reviewed featured educators actively demonstrating and describing school practices/processes. Two other videos solely featured student reflections/experiences (not captured by Ward's [2017] framework). Likewise, analyzing 257 Facebook posts that linked to other written work, 50.2% ($n = 129$) were written by persons identifying as educators, 16.7% ($n = 43$) by Edutopia staff or contractors, 14.7% ($n = 38$) by traditional knowledge producers (e.g., university professors), 10.1% ($n = 26$) by consultants or educational business members, and 5.4% ($n = 14$) by journalists or bloggers.

We also noted some interaction between entities on this dimension. Since its origins, the Marshall Memo reportedly has featured Edutopia material 95 times and Usable Knowledge nine times (Marshall Memo LLC, 2017b). Likewise, Marshall joined an Edutopia conversation regarding teacher evaluation in mid-2016, and Usable Knowledge material has made it into the Edutopia blog at least once (Cronin, 2015; more than 2,000 social media shares).

What type of knowledge? These entities also varied in their relative emphases toward three types/sources of knowledge, which trace back to Aristotle's distinctions between episteme, techne, and phronesis (Flyvbjerg, 2001; Ward, 2017):

- scientific/factual knowledge (e.g., research findings, evaluation data),
- technical knowledge (practical skills, experiences, expertise), and
- practical wisdom (professional judgments, values, beliefs).

Following Ward, we globally identified the type(s) preferred by each entity and noted large contrasts in what is considered to be socially robust knowledge (i.e., knowledge that is believed to be both of quality but also justified, understood, and acceptable more widely; Gibbons, 1999; in other words, the combination of scientific, technical, and practical wisdom employed). Usable Knowledge strongly favored scientific/factual knowledge, although sometimes it also sought select experts' (e.g., HGSE faculty) technical knowledge and practical wisdom. As an example, Shafer (2017) presented a "research story," based on a Harvard faculty member's study regarding how to sustain faculty diversity. The Marshall Memo liberally addressed all types; none were clearly dominant, and Marshall's selections frequently integrated across knowledge types (see Malin & Paralkar, 2017). Finally, Edutopia's videos and social media postings preferred technical knowledge but also frequently highlighted practical wisdom. For example, in an Edutopia YouTube video (Edutopia, 2017) a teacher stated, "Kids need to learn teamwork-based skills because every other class in every other

subject that they have . . . requires them to work in different size groups, accomplishing different tasks." This teacher was expressing a belief based on practical/professional experiences. Scientific/factual knowledge was present but in clearly secondary position. For example, concluding "Schools That Work" YouTube videos were "Metrics of Success." Likewise, the Edutopia website houses research summaries regarding each core strategy, but we perceived these as secondary, that is, legitimizing core strategies and featured content.

Relying on Hubers and Poortman (2017) enabled further comparisons. Edutopia preferred knowledge sharing related to its core strategies. Consequently, it was able to attain a high level of *depth*. For example, Edutopia was through its videos arguably best able to vividly share knowledge of how and why to implement a strategy. These videos tended to show actual strategies being implemented, with frequent educator voiceovers explaining what was occurring and describing both why (rationale) and how (implementation/process) it was being done. Accordingly, we submit, Edutopia is producing/disseminating knowledge that is likely to be perceived as socially robust (e.g., knowledge that is both understood and socially accepted). Over time, Edutopia has also clearly accumulated and organized a plethora of material related to its core strategies.

Marshall aims to be comprehensive, selecting what he views as the best education-relevant "research and ideas." He is especially partial to integrative, broad-spanning (vs. narrowly focused) articles—that is, he favors "the pulled together stuff" while being less taken by empirical articles, which "tend to be too narrow" (as quoted in Malin & Paralkar, 2017, p. 9). These decisions, we interpret, relate to his desire to select and share socially robust knowledge. Usable Knowledge is broad in a sense, but its content coverage is constrained by what has been produced at HGSE. Its recent attachment to #OneAllHGSE, however, has enabled it to attain increased depth within that topic area. Although Edutopia's focus is appreciably constrained around six core strategies, these strategies are broad in nature, enabling Edutopia staff to address a wide range of topics over time. Likewise, the community platform appears to be lightly moderated, meaning a wide range of topics are brought up and discussed by community members (educators, researchers, members of the public, etc.). For example, although contemporary progressive educational topics, like culturally responsive teaching and how to productive dialogue about race, are not obviously manifested in the core strategies, they appear to be substantially addressed by the user community (e.g., Aguilar, 2015; Vilson, 2016). Stepping back, it appears *breadth* of content coverage is another dimension according to which these entities meaningfully vary.

In many ways, understanding *whose* and *what* knowledge in combination illustrates the brokers' priorities: As they can broker only finite knowledge, their choices reveal what they believe to be most salient. In this sense, they act as gatekeepers.

But brokers themselves do not have full knowledge of all the evidence currently available, and furthermore, brokerage is not a knowledge-neutral activity; brokers can be as susceptible to influence and bias as teachers and policymakers. Meanwhile, however, the characteristic Mode 2 nature of brokerage means it must be brokers' assumption that any knowledge they feature can have practical applications. As such, although it is invariably true that the brokerage activities of these organizations are subject to some bias and not fully comprehensive in their coverage, it is at the gift of the user whether to engage and employ them. Thus, brokers need to source knowledge they believe is pertinent and that will be acted on. Furthermore, educators are likely to augment any knowledge brokered such that it builds on their knowledge of their context *and* coheres with their own expertise and experience to date. Correspondingly, although it is possible to view brokerage activity that is non-neutral and noncomprehensive in nature as problematic, as with any information distribution system (such as Google), what is produced is unlikely to be consumed *carte blanche* and instead is likely to act solely as a stimulus for action.

How is knowledge mobilized? In this regard, also, clear contrasts were apparent. Following Ward (2017), we examined these entities according to these approaches:

- Making connections between knowledge stakeholders and actors by establishing and brokering relationships (Con)
- Disseminating and synthesising knowledge via online databases, communication strategies and evidence synthesis services (Di)
- Facilitating interactive learning and co-production via participatory research projects and action learning sets (Int). (p. 10)

Also, per Hubers and Poortman (2017), we examined these entities' approaches to knowledge sharing (e.g., active personal engagement, personal communication, and written communication).

For both Usable Knowledge and the Marshall Memo, a dissemination focus dominates, with some (but less) evidence of concomitant knowledge synthesis focus. The Marshall Memo often features already synthesized material, and Marshall's members'-area search engine allows educators to deeply explore particular topics. In issuing the memos, Marshall aims for "a personal feel," for instance, by attaching his memos to "a chatty cover email" that begins with the subscriber's name (K. Marshall, personal communication, July 9, 2016). Usable Knowledge's engagement with #OneAllHGSE also has drawn it beyond dissemination and into some synthesis activities (e.g., compiling strategies and links). These entities also focused, albeit lightly and distinctly, on encouraging or facilitating interactive learning, Usable Knowledge through

the campaign and the memo through Marshall's encouragements that educators engage in structured sharing (Malin & Paralkar, 2017). Usable Knowledge is fairly active via Twitter (more than 2,800 tweets appear to have been made since 2014) and benefits from its attachment to HGSE, which has a large, multiplatform social media presence.

Edutopia vigorously pursues each KMB approach and is especially focused on facilitating interactive learning and knowledge coproduction. Edutopia emphasizes certain core strategies but then routinely situates educators and students as "proof points," as knowledge creators or co-creators, specifically regarding *how* and *why* to do so. In addition to sharing practical wisdom, as noted previously, many videos and articles devoted significant attention to implementation-related information (e.g., First, I do *x*, because *y*. I know it is successful when *z*.). Its exhaustive website serves to disseminate and synthesize this and other knowledge. Lucas reflected, "making an archive of what works seemed like a great idea" (Edutopia, 2016). It is also providing a platform (e.g., its community/discussion section, its highlighting of certain educators and schools/systems) that can serve to increase connection making between different "knowledge stakeholders" (Ward, 2017, p. 10). For instance, university-based researchers, such as Maurice Elias, have utilized the Edutopia platform to share their research-based ideas. A post Elias (2016) wrote titled "How Do We Measure Social and Emotional Learning?" has been shared via social media nearly 8,000 times, which exceeds by many orders of magnitude the attention researchers typically enjoy when writing solely in traditional scholarly outlets. For another example, professor Nell Duke (2016) wrote, "What Doesn't Work: Literacy Practices We Should Abandon," a blog post that has been shared more than 57,000 times and was featured in Marshall Memo 642. Edutopia's social media reach shrouds the others', as noted. Also, its embrace of nonwritten materials (e.g., videos, imagery) shows some entities have moved beyond written communication and its pitfalls (Hubers & Poortman, 2017). Their ability to do so relates partially to their elevated human resource capacity (e.g., video/production specialists on staff).

Why is knowledge being mobilized? Regarding purposes—"to what end is the knowledge mobilized?" (Davies et al., 2015, p. 33)—we observed commonalities and differences. First, applying Ward's (2017) scheme, "to change practices and behaviors" (p. 5) was identified as the dominant purpose for each entity. This motivation was most conspicuous within purpose statements, for example, Usable Knowledge's emphasis upon "easy-to-use stories and strategies" (President and Fellows of Harvard College, 2017), Edutopia's focus on promoting "what works in K–12 education" (GLEF, 2017), and the Marshall Memo's focus on that with "the greatest potential to improve teaching, leadership, and learning" (Marshall Memo LLC, 2017a). Our analyses of

each entity's featured content showed that its behaviors aligned with its stated motivations. For example, Marshall Memo content selections emphasized actionable material, and Marshall's summaries of research paid less attention to methodological details (Malin & Paralkar, 2017).

For Edutopia, we concluded it also aimed to facilitate development of "new policies, programmes, and/or recommendations" and to inspire the "[production of] useful research/scientific knowledge" (Ward, 2017, p. 5). As previously noted, the educators who are blogging and/or featured in videos are positioned as knowledge *producers*. It also appears that Edutopia (e.g., its long-standing advocacy/support for technology integration) and its user community (e.g., its early identification of personalized learning, maker spaces, etc.) are routinely *ahead* of university researchers' agendas in terms of the issues they identify and illuminate; in that sense, too, they are inspiring research/scientific knowledge production (moreover, through GLEF, some such research is directly funded).

Thinking broadly regarding *why*—asking which problems these entities are striving to solve and incorporating additional motivations (e.g., profit seeking, enhancement of organizational stature)—we identified three distinct profiles.

The Marshall Memo is a commercial product delivered weekly to paying subscribers (educators and other educational stakeholders). Marshall assumes useful research and ideas are out there, but educators face at least two problems that he aims to address: One, "school people don't have enough time to read," so Marshall "serves as [their] designated reader." Two, he aims to address access issues and that "the best educational ideas are widely scattered." He aspires to support educators who are "hungry for actionable, school-based ideas" (Marshall Memo LLC, 2017c). Usable Knowledge is aimed to augment the influence and stature of HGSE (see earlier section: *whose* knowledge) and the knowledge emanating from it. Like Marshall, key presuppositions are that (a) helpful research is out there but is seldom reaching educators and other stakeholders and (b) educators face significant time issues. For instance, HGSE dean James Ryan stated,

After a day of managing a classroom, grading assignments, and preparing a...lesson plan, a teacher probably isn't going to have time to read a full academic paper. But he or she may have time to watch a brief video on assessments and discover a better approach to prepare his or her students for a test. (Gilbert, 2014)

Usable Knowledge also seeks to translate research into "easy-to-use stories and strategies" (President and Fellows of Harvard College, 2017).

Edutopia has a distinctively lofty vision, driven considerably by George Lucas's prior (primarily negative) experiences with, and thinking regarding how to enhance, K–12 education (Chen & Armstrong, 2002). Edutopia envisions "a new world of learning based on the compelling truth that

improving education is the key to the survival of the human race" (GLEF, 2017). This world is one in which "students and parents, teachers and administrators, policy makers and the people they serve are all empowered with a shared vision to change education for the better" (GLEF, 2017). Its mission emphasizes three 21st-century skills it sees as primary and learnable: "how to find fact-based information," "how to assess the quality of information," and "how to creatively and effectively use information to accomplish a goal" (GLEF, 2017). This leads to six core strategies that it aspires to "help . . . educators to implement" (GLEF, 2018). Collectively, Edutopia is striving to guide and inspire educators (and teams/systems) to change their behaviors in particular fashions.

Reasonably understanding the *why* is crucial because it drives other aspects. For example, a motivation to enhance one's organizational stature drives decisions regarding *whose* knowledge to share while also constraining *what* is shared. Likewise, recognition of educators' time scarcities leads mobilizers to produce concise materials. It is also revealing to compare mobilizers' views on how they strengthen R-P connections. Brokers each believe they meet specific requirements (i.e., address certain educator needs), and the fact that each is apparently successful suggests they have accurately identified specific informational niches.

Discussion

This multiple-case study analyzed three U.S.-based KMB intermediaries relative to *why* and *how* they mobilized knowledge and *what* and *whose* knowledge they featured. As anticipated, these entities varied appreciably. Beyond our expectations, too, deeply studying these entities revealed two distinctive types of brokerage. In this discussion, we reflect on the different profiles and patterns that emerged, and we suggest implications and research directions.

This study underscores the fundamental importance of understanding mobilizers' purposes (Davies et al., 2015; Ward, 2017). While identifying common *ends* each entity aspired toward—to change educators' practices and behaviors (Ward, 2017)—we also identified distinct background motivations and distinct R-P connection problems (or structural holes) each sought to address. These nuances were somewhat predictable by these entities' social field positions (Anderson et al., 2017) and were key to understanding their overall KMB programs, as Farley-Ripple and colleagues (2017) had suggested.

A principal unstated motivation for Usable Knowledge is to enhance the stature/reach of HGSE (*whose* knowledge; Ward, 2017). It was primarily focused on getting research (*what*; converted into brief, actionable "stories") into the hands of frontline practitioners and others, like policymakers. Its guiding logic was that good research (*what*), emanating from traditional knowledge producers (*who*), exists but

does not frequently enough reach those positioned to apply it. Largely, then, its activities tilted toward targeted one-way dissemination, from research to practice (*how*). The Marshall Memo is a commercial product that Marshall has shaped based on apparent practitioner demands: He focuses on getting (the best new) *research and other ideas* into educators' hands, assuming educators crave such information but have insufficient time and access to otherwise attain it. Important to the memo's success, then, is subscribers' sense that he is comprehensively searching and selecting useful materials (Malin & Paralkar, 2017). Also, he has organized accumulated memo material into a searchable archive, a feature many subscribers appreciate (Malin & Paralkar, 2017). Marshall's activities accordingly also gear toward one-way dissemination (*how*) but with distinctly broad search/selection, relative to both *whose* and *what* knowledge aspects.

Edutopia, in marked contrast, is predominately user driven—although centrally curated—with most content developed by (articles) or heavily featuring (videos) frontline practitioners and routinely sparking substantial social media activity. We propose its user-driven nature substantially explains both its popularity and its abilities to continually evolve. Edutopia, we concluded, aims to inspire educators to pursue particular strategies and to spread relevant examples and inspiration (e.g., *how* and *why* to do *x*; Hubers & Poortman, 2017). It is thus focused on addressing a different structural hole, related to the spread of ideas and strategies especially, although not exclusively, from educator to educator. It has accordingly embraced a model in which educators are positioned as experts in their own right, and its platforms are used to mobilize knowledge educators create.

That Edutopia's favored strategies are broad and appear to be compatible with leading educational philosophy (e.g., progressivism, including experience-based learning; see Schneider, 2014) also helps to explain Edutopia's expansive reach. Insofar as Edutopia embraces a "progressive" educational philosophy, it also incrementally helps to address the fundamental issue progressive educators face: "the problem of selection and organization of subject-matter for study and learning" (Dewey, 1938, p. 78). Progressive education must also be forward-looking and must evolve (Dewey, 1938). Edutopia appears to embrace this point, which also means certain educators with new ideas and ways of doing are at a premium. They can be knowledge creators, producing evidence from implementation and demonstrating new and potentially promising areas of inquiry.

Tying back to the notion of R-P connections in education, Edutopia appears to be demonstrating a model that can push our thinking. Research–practice partnerships (RPPs; see Coburn & Penuel, 2016), for instance, are proliferating, and they are forward-looking and can be powerful. However, too often embedded even within contemporary discussions about RPPs may be assumptions that they are primarily a means to help educators more readily access and use

evidence produced by researchers (e.g., a one-way road; see Farrell, 2017). By contrast, two-way partnerships (as with Edutopia when at its best, we offer) can emerge, in which educators are not mere consumers of research (Anderson, Herr, & Nihlen, 1994) but rather are active knowledge creators, leading thinkers, expert identifiers of problems (and productive, energizing trends) of practice, and so on. In such partnerships, traditional knowledge producers presumably need to assume a different stance or position—one that recognizes and honors the creative potential of such arrangements and seeks to participate and add value within them. For instance, researchers could partner with educators to test promising new strategies, write compelling articles regarding how their theories or approaches might usefully fine-tune educators' thoughts or actions, and so on. In such arrangements, though, they would no longer occupy privileged positions and might instead need to compete with various others for attention, credibility, and so on. However, insofar as they were able to secure productive entry into the conversation, they *would* be serving to strengthen R-P connections. For one, by participating in these conversations, researchers presumably would become more in touch with contemporary problems and trends, and could consider tuning their subsequent research activities accordingly.

This study supports and adds to Farley-Ripple and colleagues' (2017) conceptualization of brokerage in education as dynamic, complex, and diverse. This study tentatively identifies two distinctive types of brokerage: One is primarily one-way in nature, enabling the communication of research (and/or other) knowledge to practice communities, and another is two-way, enabling its user community to document challenges and describe emerging trends in education practice. As Davies et al. (2015) summarized, relational and interactive exchanges are increasingly understood as required for knowledge to flow and influence practice. Edutopia thus demonstrates a menu of innovative approaches and products that might be emulated by others. At the same time, we concur with Ward (2017) that various KMB approaches can be justifiable depending on one's specific purposes, resources, and so on.

It is also important to revisit the point that knowledge brokering (like research production) is not neutral. Brokers must make choices relative to what to feature, and they cannot have full knowledge of all that exists. This study yielded insights into these choices, including how they flow from distinct motivations and how they affect both brokered products and processes. Notwithstanding, recipients of brokered knowledge are not passive consumers. If brokered knowledge is not practically applicable (i.e., Mode 2) and/or does not cohere with professional realities (i.e., lacking socially robustness), it will likely be ignored. Moreover, even trustworthy Mode 2 knowledge will not necessarily be adopted *carte blanche*. Since the late Carol Weiss's seminal work in the 1970s, approaches to using research to inform

educational practice have broadly been categorized as having either instrumental or conceptual goals (see Weiss, 1980, 1982). The former suggests a direct link can occur between research findings and action, and the latter suggests research typically guides thinking and will be considered alongside other evidence. Grounded in the argument that conceptual research use is more likely and realistic than instrumental research use (e.g., see Brown et al., 2017), it seems likely that brokered knowledge will only ever inform the decisions of educators rather than steer them directly. As such, brokered knowledge will necessarily be combined by educators with practical and contextual knowledge as it is used.

This study’s findings hold implications for educators, intermediaries, and scholars. For educators, this study provides a comparative examination of three intermediaries with large followings and may provide insights into how such entities can be leveraged to expand one’s connections to ideas and to enhance practice. Meanwhile, it may be helpful to reflect on the different approaches that are under way and upon the distinct ways practicing educators are being positioned. For existing or prospective mobilizers, this study provides a clear view of the choices that are made and includes description of several innovative practices that might be adopted or adjusted. For scholars, this study provides further insight into intermediaries’ vital and varied functions in education. Especially, it is hoped that scholars will continue to investigate the ways in which intermediaries are aiming to fill structural holes and, especially, how, why, and to what effect they are creating boundary objects to join people—spanning both research and practice—and their professionally relevant ideas.

Appendix A

Summary of Ward’s (2017) Knowledge Mobilization Framework, by Question

Why is knowledge being mobilized?

- Develop solutions to practical problems
- Develop policies/programs or recommendations
- Implement defined policies and practices
- Change practices and behaviors
- Produce useful research/scientific knowledge

Whose knowledge is being mobilized?

- Professional knowledge producers
- Frontline practitioners
- Members of the public/service users
- Decision makers
- Product/program developers

What type of knowledge is being mobilized?

- Scientific/factual knowledge
- Technical knowledge/skills
- Practical wisdom

How is knowledge being mobilized?

- Making connections/brokering relationships
- Disseminating and synthesizing knowledge
- Interactive learning and coproduction

Note. This appendix also found in Malin and Paralkar (2017).

Appendix B

Data Collection and Analysis Details (Whose and What Knowledge), by Entity

Materials Collected and Analyzed

| Entity | Description | Date range |
|------------------|--|------------------------------------|
| Edutopia | Facebook posts (website links) (<i>N</i> = 257) | February 1, 2017 to April 30, 2017 |
| | YouTube video (<i>N</i> = 20) | December 8, 2016 to May 8, 2017 |
| Marshall Memo | Memos 631–645 items (<i>N</i> = 116) | April 4, 2016 to July 11, 2016 |
| Usable Knowledge | Articles on website (<i>N</i> = 25) | April 20, 2017 to July 9, 2017 |

Note. Date ranges are inconsistent across entities, related primarily to logistics surrounding the progression/manner in which this study developed (e.g., it grew from the first author’s participation in an initial study of the Marshall Memo). We consider potential implications of this feature in the Limitations section.

Additional Material Reviewed, by Entity

Edutopia: *Edutopia: Success Stories for Learning in the Digital Age* (Chen & Armstrong, 2002); *Education Week* commentary offering a positive framing regarding Edutopia (Chen, 2001); *Education Next* article (Pondiscio, 2010); *Education Next* reader’s response (Dede, 2010); *Education Week* news article regarding Edutopia shift to online only (Manzo, 2010); Edutopia website (emphasis on “About” page); Twitter, Pinterest, Instagram pages/activity (cursory)

Marshall Memo: The Marshall Memo website (emphasis on “Why the Marshall Memo” page); Malin and Paralkar (2017); confirmed no social media activity

Usable Knowledge: *Harvard Crimson* article (Gilbert, 2014); Twitter page/activity; Harvard Graduate School of Education Twitter and Facebook pages/activities (cursory)

Illustrative Examples Regarding Analytic Distinctions (Whose and What Knowledge)

Whose knowledge (examples for dominant category)

Edutopia

- Video example of frontline practitioner featured or driven content:
 - “Design Thinking: Prioritizing Process Skills” (<https://www.youtube.com/watch?v=l7-MVYjZYOE>)

- Article example of frontline practitioner featured or driven content:
 - “New Teachers: Classroom Management Essentials” (Ben Johnson; https://www.edutopia.org/blog/new-teachers-classroom-management-essentials-ben-johnson?utm_source=facebook&utm_medium=socialflow)

Marshall Memo

- Example of research article featured (traditional knowledge producer):
 - “Why a Response to Intervention Initiative Failed in Two Florida Schools” (Cavendish et al., 2016; from *Teachers College Record*; Memo 642)
- Example of featured article by frontline practitioner:
 - “Shifting From Superficial to Effective Supervision of Principals” (John Fitzimmons, from *School Administrator*; Memo 642)
- Example of featured article by journalist:
 - “David Brooks on Altruism Versus Selfishness” (from *New York Times*; Memo 645)

Usable Knowledge

- Article example of Harvard Graduate School of Education–affiliated researcher featured material:
 - “When Kids are Held Back, Gains Can Follow” (Research Stories, featuring faculty member Martin West’s research with colleagues; <https://www.gse.harvard.edu/news/uk/17/07/when-kids-are-held-back-gains-can-follow>)

What knowledge

Edutopia

- Video example demonstrating focus on multiple knowledge types:
 - “Flexible Classrooms: Making Space for Personalized Learning” (<https://www.youtube.com/watch?v=jQkL5efkViv&t=2s>)

Marshall Memo

- Example of an article featured by Marshall that integrated across knowledge types:
 - “The Virtues of Single-Tasking” (Verera von Pfetten, from *New York Times*; Memo 638)

Usable Knowledge

- Example of an article highlighting traditionally produced research or perspectives of researchers”
 - “Literacy Dilemmas? Ask a Researcher” (<https://www.gse.harvard.edu/news/uk/17/07/literacy-dilemmas-ask-researcher>)

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Note

1. Elsewhere in countries experiencing analogous policy drivers, such as England, similar bottom-up initiatives are also occurring, for example, the emerging network of “Teachmeets” and “ResearchED” conferences (Whitty & Wisby, 2017) initiated by educators and designed to help teachers connect more effectively with educational research.

References

- Aguilar, E. (2015). Making connections: Culturally responsive teaching and the brain [Blog post]. Retrieved from <https://www.edutopia.org/blog/making-connections-culturally-responsive-teaching-and-brain-elena-aguilar>
- Akkerman, S. F., & Bakker, A. (2011). Boundary crossing and boundary objects. *Review of Educational Research, 81*, 132–169.
- Anderson, G., De La Cruz, P., & López, A. (2017). New governance and new knowledge brokers: Think tanks and universities as boundary organizations. *Peabody Journal of Education, 92*, 4–15.
- Anderson, G. L., Herr, K., & Nihlen, A. S. (1994). *Studying your own school*. Thousand Oaks, CA: Corwin.
- Bourdieu, P. (2005). The political field, the social science field, and the journalistic field. In R. Benson, & E. Neveu (Eds.), *Bourdieu and the journalistic field* (pp. 29–47). Cambridge, UK: Polity Press.
- Brown, C. (2013). *Making evidence matter: A new perspective on evidence-informed policy making in education*. London, UK: IOE Press.
- Brown, C., Schildkamp, K., & Hubers, M. (2017). Combining the best of two worlds: A conceptual proposal for evidence-informed school improvement. *Educational Research, 59*, 154–172.
- Burt, R. (2004). Structural holes and good ideas. *American Journal of Sociology, 110*, 349–399.
- Caplan, N. (1979). The two-communities theory and knowledge utilization. *American Behavioral Scientist, 22*, 459–470.
- Chen, M. (2001). Seeking Edutopia. *Education Week, 20*(36), 42–43.
- Chen, M., & Armstrong, S. (2002). *Edutopia: Success stories for learning in the digital age*. San Francisco, CA: Jossey-Bass.
- Coburn, C. E., & Penuel, W. R. (2016). Research–practice partnerships in education: Outcomes, dynamics, and open questions. *Educational Researcher, 45*, 48–54.
- Coldwell, M., Greany, T., Higgins, S., Brown, C., Maxwell, B., & Stiell, . . . Burns, H. (2017). *Evidence-informed teaching: An evaluation of progress in England*. London, UK: Department for Education. Retrieved from <https://www.gov.uk/government/publications/evidence-informed-teaching-evaluation-of-progress-in-england>
- Contandriopoulos, D., Lemire, M., Denis, J.-L., & Tremblay, E. (2010). Knowledge exchange processes in organizations and policy arenas: A narrative systematic review of the literature. *Milbank Quarterly, 88*, 444–483.
- Cook, B. G., Cook, L., & Landrum, T. J. (2013). Moving research into practice: Can we make dissemination stick? *Exceptional Children, 79*, 163–180.
- Cooper, A. (2014). Knowledge mobilisation in education across Canada: A cross-case analysis of 44 research brokering

- organisations. *Evidence & Policy*, 10, 29–59. <https://doi.org/10.1332/174426413X662806>
- Crandall, D. P. (1989). Implementation aspects of dissemination: Reflections toward an immodest proposal. *Knowledge*, 11, 79–106.
- Cronin, A. (2015, November 6). Launch video classroom observations with new toolkit [Blog post]. Retrieved from <https://www.edutopia.org/blog/video-classroom-observations-new-toolkit-ashley-cronin>
- Daly, A. J., Finnegan, K. S., Moolenaar, N. K., & Che, J. (2014). The critical role of brokers in the access and use of evidence at the school and district level. In K. S. Finnigan, & A. J. Daly (Eds.), *Using research evidence in education: From the schoolhouse door to Capitol Hill* (pp. 13–32). New York, NY: Springer.
- 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* 2015, 3, 27.
- Dede, C. (2010). Defending Edutopia. *Education Next*, 10(4), 9.
- Dewey, J. (1938). *Experience and education*. New York, NY: Free Press.
- Dudo, A. (2015). Scientists, the media, and the public communication of science. *Sociology Compass*, 9, 761–775.
- Duke, N. K. (2016). What doesn't work: Literacy practices we should abandon [Blog post]. Retrieved from <https://www.edutopia.org/blog/literacy-practices-we-should-abandon-nell-k-duke>
- Edutopia. (2016). *Celebrating 25 years of what works in education* [Video file]. Retrieved from <https://www.youtube.com/watch?v=8vDuGyToRoQ>
- Edutopia. (2017). *Developing independent learners: Guiding students to be more resourceful* [Video file]. Retrieved from https://www.youtube.com/watch?v=IJD_IZOLfKU
- Elias, M. J. (2016). How do we measure social and emotional learning? [Blog post]. Retrieved from <https://www.edutopia.org/blogs/how-do-we-measure-sel-maurice-elias>
- Emrick, J. A., & Agarwala-Rogers, R. (1978). National Diffusion Network: An emerging strategy for directed change. *Viewpoints in Teaching and Learning*, 54, 90–113.
- Farley-Ripple, E., Tilley, K., & Tise, J. (2017, April). *Brokerage and the research-practice gap: A theoretical and empirical examination*. Paper presented at the annual meeting of the American Educational Research Association, San Antonio, TX
- Farrell, C. (2017, September 4). Moving beyond building practitioner capacity to mutual learning in research-practice partnerships. *Education Week*. Retrieved from <http://blogs.edweek.org/>
- Flyvbjerg, B. (2001). *Making social science matter: Why social inquiry fails and how it can succeed again*. Cambridge, UK: Cambridge University Press.
- George Lucas Educational Foundation. (2017). *About us*. Retrieved from <https://www.edutopia.org/about>
- George Lucas Educational Foundation. (2018). *Core strategies for innovation and reform in learning*. Retrieved from <https://www.edutopia.org/about/core-concepts>
- Gibbons, M. (1999). Science's new social contract with society. *Nature*, 402, C81–C84.
- Gibbons, M., Limoges, C., Nowotny, H., Schwartzman, S., Scott, P., & Trow, M. (1994). *The new production of knowledge: The dynamics of science and research in contemporary societies*. Thousand Oaks, CA: Sage.
- Gilbert, C. H. (2014, September 12). Ed school launches Usable Knowledge project. *The Harvard Crimson*. Retrieved from <http://www.thecrimson.com/article/2014/9/12/GSE-usable-knowledge-launch/>
- Goldacre, B. (2013). *Building evidence into education*. Retrieved from <https://www.gov.uk/government/news/building-evidence-into-education>
- Gould, R. V., & Fernandez, R. M. (1989). Structures of mediation: A formal approach to brokerage in transaction networks. *Sociological Methodology*, 19, 89–126.
- Hammersley-Fletcher, L., & Lewin, C. (2015). *Evidence-based teaching: advancing capability and capacity for enquiry in schools: Interim report*. Nottingham, UK: National College for Teaching and Leadership. Retrieved from <http://www.gov.uk/government/publications>
- Harvard Graduate School of Education. (2017a, July 14). Follow @UKnowHGSE for strategies on how to improve the school experience for students and teachers alike [Tweet]. Retrieved from twitter.com/hgse
- Harvard Graduate School of Education. (2017b). Responding to bias at school. Retrieved from <https://www.gse.harvard.edu/news/uk/17/04/responding-bias-school>
- Hering, J. G. (2016). Do we need “more research” or better implementation through knowledge brokering? *Sustainability Science*, 11, 363–369.
- Herriott, R. E., & Firestone, W. A. (1983). Multisite qualitative policy research: Optimizing description and generalizability. *Educational Researcher*, 12(2), 14–19.
- Huberman, M., & Miles, M. B. (1984). *Innovation up close: How school improvement works*. New York, NY: Plenum.
- Hubers, M. D., & Poortman, C.L. (2017). Establishing sustainable school improvement through professional learning networks. In C. Brown, & C. Poortman (Eds.), *Networks for learning: Effective collaboration for teacher, school and system improvement* (pp. 194–204). London, UK: Routledge.
- Lincoln, Y., & Guba, E. (1985). *Naturalistic inquiry*. Newbury Park, CA: Sage.
- Lubienski, C., Scott, J., & DeBray, E. (2011). The rise of intermediary organizations in knowledge production, advocacy, and educational policy (ID No. 16487). *Teachers College Record*. Retrieved from <http://www.tcrecord.org/>
- Lysenko, L. V., Abrami, P. C., Bernard, R. M., Dagenais, C., & Janosz, M. (2014). Educational research in educational practice: Predictors of use. *Canadian Journal of Education/Revue canadienne de l'éducation*, 37(2), 1–26.
- Malin, J. R. (2016). Educators' use of research and other evidence within local grant foundation applications. *Planning and Changing*, 47, 82–100.
- Malin, J. R., & Lubienski, C. (2015). Educational expertise, advocacy, and media influence. *Education Policy Analysis Archives*, 23(6). Retrieved from <http://epaa.asu.edu/ojs/article/view/1706>
- Malin, J. R., & Paralkar, V. (2017). Educational knowledge brokerage and mobilization: The Marshall Memo case. *International Journal of Education Policy and Leadership*, 12(7), 1–20.
- Manzo, K. K. (2010). Edutopia to go online-only: Chen steps down as foundation head. *Education Week*, 29(21), 4–5.
- Marshall Memo LLC. (2017a). Home page. Retrieved from <https://marshallmemo.com>

- Marshall Memo LLC. (2017b). *Publications read*. Retrieved from <https://marshallmemo.com/publications.php>
- Marshall Memo LLC. (2017c). *Why the Marshall Memo?* Retrieved from <https://marshallmemo.com/why.php>
- Mincu, M. (2014). *Inquiry paper 6: What is the role of research?* Retrieved from <https://www.bera.ac.uk/wp-content/uploads/2014/02/BERA-RSA-Interim-Report.pdf>
- Neal, J. W., Neal, Z. P., Kornbluh, M., Mills, K. J., & Lawlor, J. A. (2015). Brokering the research–practice gap: A typology. *American Journal of Community Psychology, 56*, 422–435.
- Nowotny, H., Scott, P., & Gibbons, M. (2003). Introduction: Mode 2 revisited. The new production of knowledge. *Minerva, 41*(3), 179–194.
- Patton, M. Q. (2002). *Qualitative evaluation and research methods* (3rd ed.). Thousand Oaks, CA: Sage.
- Pondiscio, R. (2010). Edutopian vision. *Education Next, 10*(3), 38–44.
- President and Fellows of Harvard College. (2017). *Harvard Graduate School of Education: Usable Knowledge*. Retrieved from <https://www.gse.harvard.edu/uk>
- Punch, K. (2005). *Introduction to social research: Quantitative and qualitative approaches*. London, UK: Sage.
- Rich, A. (2005). *Think tanks, public policy, and the politics of expertise*. Cambridge, UK: Cambridge University Press.
- Robson, C. (2002). *Real world research: A resource for social scientists and practitioners* (2nd ed.). Oxford, UK: Blackwell.
- Rose, J., Thomas, S., Zhang, L., Edwards, A., Augero, A., & Rooney, P. (2017). *Research learning communities: Evaluation report and executive summary*. Retrieved from <https://educationendowmentfoundation.org.uk/>
- Sarewitz, D., & Pielke, R. A., Jr. (2007). The neglected heart of science policy: Reconciling supply of and demand for science. *Environmental Science & Policy, 10*(1), 5–16.
- Saunders, L. (2015). “Evidence” and teaching: A question of trust? In C. Brown (Ed.), *Leading the use of research and evidence in schools* (pp. 39–52). London, UK: IOE Press.
- Schneider, J. (2014). *From the ivory tower to the schoolhouse: How scholarship becomes common knowledge in education*. Cambridge, MA: Harvard Education Press.
- Shafer, L. (2017, August 4). How to sustain faculty diversity. Retrieved from <https://www.gse.harvard.edu/news/uk/17/08/how-sustain-faculty-diversity>
- Star, S. L., & Griesemer, J. R. (1989). Institutional ecology, “translations” and boundary objects: Amateurs and professionals in Berkeley’s Museum of Vertebrate Zoology, 1907–39. *Social Studies of Science, 19*(3), 387–420.
- Supovitz, J., (2015). Teacher data use for improving teaching and learning. In C. Brown (Ed.), *Leading the use of research and evidence in schools* (pp. 116–124). London, UK: IOE Press.
- Tseng, V. (2012). Social policy report: The uses of research in policy and practice. *Sharing Child and Youth Development Knowledge, 26*(1), 3–16.
- U.S. News and World Report. (2017). *2018 best education schools*. Retrieved from <https://www.usnews.com/best-graduate-schools/top-education-schools>
- Vilson, J. (2016). EduColor: Having the deeper conversations online [Blog post]. Retrieved from <https://www.edutopia.org/blog/educolor-having-deeper-conversations-online-jose-vilson>
- Ward, V. (2017). Why, whose, what and how? A framework for knowledge mobilisers. *Evidence & Policy, 13*(3), 477–497.
- Ward, V., House, A., & Hamer, S. (2009). Knowledge brokering: The missing link in the evidence to action chain? *Evidence & Policy, 5*(3), 267–279.
- Weiss, C. (1980). Knowledge creep and decision accretion. *Knowledge: Creation, Diffusion, Utilisation, 1*(3), 381–404.
- Weiss, C. (1982). Research in the context of diffuse decision making. *Journal of Higher Education, 53*(6), 619–639.
- Whitty, G., & Wisby, E. (2017, September). Is evidence-informed practice any more feasible than evidence-informed policy? *Paper presented at the annual conference of the British Educational Research Association*, Sussex, UK.
- Yettick, H. (2015). One small droplet: News media coverage of peer-reviewed and university-based education research and academic expertise. *Educational Researcher, 44*(3), 173–184.
- Yin, R. K. (2014). *Case study research: Design and methods* (5th ed.). Thousand Oaks, CA: Sage.

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