

Mapping the community: Use of research evidence in policy and practice

Abstract

The use of research evidence (URE) in policy and practice is relevant to many academic disciplines as well as policy and practice domains. Although there has been increased attention to how such evidence is used, those engaged in scholarship and practice in this area face challenges in advancing the field. This paper attempts to “map the field” with the objective of provoking conversation about where we are and what we need to move forward. Utilizing survey data from scholars, practitioners, and funders connected to the study of the use of research evidence, we explore the extent to which URE work span traditional boundaries of research, practice, and policy, of different practice/policy fields, and of different disciplines. Descriptive and network analyses point to the boundary spanning and multidisciplinary nature of this community, but also to fragmentation among disciplines and literatures on which this work builds. We conclude with opportunities for to improve the connectedness, inclusiveness, relationship to policy and practice, and sustainability of URE scholarship.

The use of research evidence¹ (URE) in policy and practice is relevant to many academic disciplines; and indeed many policy and practice domains (Authors, 2019). Different methods and approaches to measuring, evaluating, promoting and describing the various ways in which evidence and policy/practice interact have sprung up (Gitomer, 2019; Lawlor et al, 2019; Pedersen, Grønvad and Hvidtfeldt, 2020), reflecting the broad and diverse areas where this is a concern. There has also been an explosion of research into how such evidence is produced and used, with dedicated journals and increased funding for URE work emerging over last 15 years (see, e.g., Smith et al, 2019; Author, 2019). Yet at the same time, those engaged in the scholarship and practice of URE face challenges advancing the field in terms of both accumulation of knowledge over time and across disciplines, and intervention and improvement in evidence use.

Our shared interest in advancing URE and its efforts, in collaboration with the William T. Grant Foundation, brought us together to “map the field”, with the objective of provoking a conversation about where we are and what we need to move forward. Our initial aim was to map the community of scholars, practitioners and funders directly connected with the study of URE. This exercise demonstrated two things. Firstly, most academic disciplines have a community of scholars working on this set of problems (Authors, 2019). These are not connected into a wider multi-disciplinary community, in part because each discipline has its own terminology and way of referring to the problem (e.g. ‘meta-science’ in neurobiology; ‘use of research evidence’ in education and social policy). This mitigates against easy conversation and collaboration between disciplinary scholars, and hinders development of this specialised area of research, leaving (particularly early career) researchers to relearn the same lessons over and over again.

Secondly, this demonstrated that there is a larger universe of scholars, funders, practitioners and policymakers who are either *studying* evidence production and use, *putting into practice* this knowledge, or *funding and supporting* research into this area. This larger universe remains unmapped. Although there have been attempts to identify this community (Nyanchoka et al, 2019; Pedersen, Grønvad and Hvidtfeldt, 2020; Waltman et al, 2019), these approaches have relied on bibliometric mapping and/or remain within academic disciplines. We believe that there is a clear need to map all those doing and supporting URE research, *and* those using this knowledge in practice, in order to know where to build links and between whom. This paper, however, focuses on the initial mapping exercise which explores the work and networks of those studying the use of research evidence. We close with a number of recommendations about how to build this community, and how to maximise the existing learning and work together to identify new, genuine knowledge gaps about how we make, find and use evidence.

Background and Context

URE has its roots in knowledge utilization, which Backer (1991) describes as, “research, scholarly, and programmatic intervention activities aimed at increasing the use of knowledge to solve human problems (p 226)” such as education, employment and healthcare. Importantly, the core components of the field - “evidence” and “use” - are broadly construed, incorporating a range of types of evidence, inclusive of

¹ Here we refer to research evidence, and subsequently evidence, as defined by Boaz, et al, as “any systematic and transparent gathering and analysis of empirical data” (p5). We recognize that definitions vary from field to field and that such evidence is but one form valued in policy and practice.

research, and constituting varied forms and purposes as ‘use’, such as the categories of instrumental, conceptual, political/strategic, and symbolic commonly featured in evidence use scholarship (Weiss, 1979). The study of URE, is, at its core, focused on understanding the formation of policy and practice and the role(s) evidence has in that process. In effect, this includes inquiry into how decisions are made; how research outputs reach decision-makers and how they respond to them; but also the rest of the research life-cycle. How are evidence bases created? What is funded, and how? Who is involved in setting research priorities, when and why; and in the production, interpretation and mobilization of knowledge?

Historically, the study of URE has come in and out of focus, peaking in the 1970s and early 1980s, a period during which many seminal works were produced and published in journals such as *Knowledge: Creation, Diffusion, and Utilization* as well as in flagship journals such as *Administrative Science Quarterly*. The last 20 years have also seen the re-emergence of evidence use as a focus of enquiry; this time, explicitly recognizing the importance of the intellectual connections between how evidence is produced (through funding, research practices, partnerships and infrastructures), and how it is used (communicated, disseminated, received and responded to). In practical terms, this can be seen in the re-establishment of venues for scholarship, such as *Evidence & Policy*, the U.K’s What Works Centres, the U.S. Institute for Education Sciences’ investment in two knowledge utilization centers, and philanthropic support for the study of evidence use by the William T. Grant Foundation.

Alongside these practical investments, there has been a widening recognition that the core concerns of the URE community are shared by other scholars (Authors, 2019; Tseng, 2012; Tseng and Coburn, 2019). The study of the production of evidence has been generally undertaken under the broad umbrellas of science policy, research assessment or evaluation, and science and technology studies (see, e.g., Waltman et al, 2019; Ioannidis et al, 2015; Munafò et al, 2017; Jasanoff, 2004; Watermeyer, 2014), whereas the study of use has belonged to the more applied social sciences (e.g., health and education; see Authors, 2019; Bauer et al, 2015; Bransford et al, 2009; Finnigan and Daly, 2014). There are of course exceptions to this rule, such as the study of innovation and technology transfer within the STS community, and the engaged research movement (Nightingale, 1998; Holliman, 2019). Yet the community of scholars working on these problems have always recognised that there are links between the production and use of knowledge. For example, both camps recognise that research is more likely to be used / implemented / acted on if users are involved in setting research priorities (e.g., Thornicroft et al, 2002; Acworth, 2008; Martin, 2010; Nolan et al, 2007; Penuel et al, 2015; Van der Meulen, 1998). But until recently there have been few attempts to join these different disciplines in a way which satisfyingly exploits what we can learn from these different perspectives. There have been recent attempts to engage with this interdisciplinary community through conferences and institutes aiming to tackle the ‘emerging field’ of meta-science, research-on-research, and other variations on a similar theme (Authors, 2019).

Of course, the study of how evidence is produced and used is hardly ‘emerging’. Indeed, scholars and practitioners from fields as diverse as computer science to clinical medicine; from conservation to art history have made, and continue to make contributions to this field (see, e.g., Feyerabend, 1961; Mukerji, 2001; Parkhurst, 2017) . The tendency to claim this as a new field means that we are both failing to learn from each other, and seeing this learning itself as an unimportant task. There is a danger that we will promise collaborators that there are new, quick fixes to the old, complex problems which are inherent in the relationship between evidence, policy and practice (see, e.g., French, 2018; Haskins, 2018). For funders in particular, the promise of a transformative new approach that will maximise research impact can feel too good an opportunity to miss. As a consequence, opportunities for thinking

and learning across disciplines to tackling thorny problems are repeatedly lost. We have to be honest about what this means for the quality of scholarship in this area.

However, the diversity in the field is potentially a huge strength, bringing in theoretical perspectives, methods, approaches which help us to find new perspectives on the complex problem of evidence use. Yet there are also challenges. We have no way to describe this larger universe of funders, scholars, practitioners and policymakers; we struggle to find each other as a community, as such an inherently multi- or inter- disciplinary field of study will rarely meet at conferences or virtually. We use different language to talk about what we do and how, and we promote our work in different spaces. We may replicate each other's work, or solve the same problems over and over again, seldom realising that we are working in parallel. This work is carried on in different geographies, disciplines, sectors and policy domains. But we have as yet no clear way to cross the boundaries.

Improving the use of evidence is one of the major policy and practice challenges of our age (Commission on Evidence-Based Policymaking, 2017). We have more data available to us, and researchers are better equipped and more outward facing than ever before (Authors, 2019). Populations hold their governments to account, and researchers are under pressure to demonstrate the impact and public value of what they do. Ethically, morally, and practically, we should, as a community, learn better from each other, and take our lessons back to our home disciplines. To do this, it is imperative that those working on this set of related problems learn from each other more effectively. A first step in this process is to identify the different scholarly communities working on this set of problems, and characterize them and their discourses.

In this paper, we share our exploration of a scholarly community that emerged from the leadership of a foundation, conducted as a means to preliminarily map the URE community, and identify opportunities for expansion and coordination amongst the wider community. Specifically, we sought to better understand the strengths and challenges facing the URE community by answering the following questions: To what extent does URE span traditional boundaries of research, practice, and policy? Of different practice/policy fields? Of different disciplines?

We acknowledge this work represents only a partial view of the larger URE space, as will be evident in our data below, but also believe it is illustrative of the challenges facing the larger scholarly community and can serve to foster broader discussion and debate about the future of URE work.

Approach

We approached the challenge of “mapping” the scholarly community through an iterative surveying approach between 2016-2018. The survey was designed for the express purposes of mapping the landscape of URE work by asking participants to:

- characterize their own discipline, role, and policy/practice sector
- Identify key scholars whose work has influenced their own perspectives and work
- Identify key references which have influenced their own URE work

This yielded descriptive information about work happening in this space as well as network data in which individuals and disciplines are linked via referential relationships.

Sample

Our sample consists of a community of scholars and practitioners affiliated with URE efforts, particularly those tied to the work of the William T. Grant (US) and Nuffield foundations (UK). As the authors of this report were linked through the WT Grant Foundation's Using Research Evidence initiative, we began by approaching those invited to their annual gathering in 2016 (n=102). We recognize that, as an invited event, limits the initial sample in many ways. It over-represents the United States as well as scholars funded by the foundation, which has a substantive focus on child education and welfare. Nonetheless, the event has grown from grantees to broader set of U.S. scholars as well as international scholars, policy leaders, and practitioners across policy areas. Moreover, as far as we are aware, it is the only academic conference to focus specifically on the study of the use of research evidence, and is therefore a reasonable seed sample to begin with.

In order to grow from this initial set of participants, we used a snowball approach, using responses from the prompt to identify up to five individuals they would consult, either in person or through their work, about use of research evidence. We then invited those individuals to participate, achieving a total of 80 respondents of the 219 ultimately invited. This approach helped us to better represent the URE landscape as well as understand the potential scope of networks within a larger community; although, as indicated above, we as yet have only a partial understanding of who is working on this, and how.

Our sampling concluded in 2018 with the inaugural *Transforming Evidence* meeting, an international convening of scholars, practitioners and funders hosted by the Nuffield Foundation in London. This meeting had an explicit remit to cross disciplinary and sectoral boundaries. Participants were invited as leading scholars, funders, or practitioners with profile within, and knowledge of their communities. The survey was administered for the final time to this set (n=54), and the data combined for a total of 134 participants (as some participants attended both meetings).

Analysis

We rely on three analytical approaches: descriptive statistics, social network analysis and bibliometric analysis. First, we employ a basic descriptive approach to consider the composition of the URE community and the varied ways in which scholars and practitioners identify with URE work. More specifically, we describe the community in terms of discipline and policy area, present ways in which work is funded, and examine the keywords scholars use to describe their work and the fields to which they contribute.

Second, we utilize social network analysis to explore the interpersonal links within this community. Participants were asked to identify up to 5 names of individuals who were either leading scholars who influenced their own work and perspectives on evidence production and use, or were advocates for better use of evidence, or better study of evidence. These individuals were characterized and added to the network. If multiple respondents nominated the same individual, they all have ties to that person. The characteristics of respondents and nominees were collated and used to analyse the network in terms of disciplines. To explore the resulting network, we use UCInet to generate basic network descriptors of the cohesiveness of the community. Specifically we consider density (the proportion of ties reported of all possible ties among respondents), fragmentation (proportion of pairs of respondents that are "unreachable" through existing ties within the network), and reciprocity (the proportion of ties present that are reciprocal) as indicators. Higher density and reciprocity are interpreted as evidence of greater cohesion, while higher fragmentation is interpreted as evidence of lesser cohesions. We also examine ties between disciplines, utilizing external-internal indices as a primary measure, which is the number of ties external to the groups minus the number of ties that are internal to the group divided by

the total number of ties. Lesser E-I values, closer to -1, indicate predominance of ties within disciplines, whereas greater E-I values, closer to 1, indicate predominance of ties between disciplines.

Finally, we asked all respondents to nominate up to 5 key references of scholarly works which had influenced their own perspective about and work on how evidence was produced and used. These were compiled and descriptively analyzed to identify patterns and trends in influential works in the field. These data complement the social network analysis and provide further insight into the extent to which the community is drawing on a shared knowledge base or a more fragmented one.

Key Findings

What did we learn about the composition and nature of the scholarly community we examined?

Our data revealed that the URE scholarly community spans the boundaries of research, policy, and practice, and represents diverse disciplines and fields of work, inhabiting a truly multidisciplinary space. However, its ability to boundary span is at once a strength to the community and a challenge.

A boundary spanning community

Most of the respondents worked in an academic setting: more than two-thirds in an academic department of university-based research centre. Others were embedded in independent research centres or think tanks (11%), philanthropic organizations or research funders (11%), non-profit or NGOs (5%), and government agencies (2%), with three individuals not identifying with any of these categories.

That the community spans boundaries seemed to be reflected in the respondents' field of practice as well. Most respondents focused their work on education (26%) or health sciences (22%) as field of policy or practice. Other fields with which members identify include criminal justice (10%), 8% in public administration (8%), innovation and science policy (8%), human services (including social work and child welfare, 8%), international development (3%), communications (3%) and social policy (3%), and conservation and environmental science (3%). A few identified with other fields, such as housing, community psychology, sport, urban policy, and evaluation. Additionally, a notable proportion of the actors described to be working beyond one specific field alone. One scholar remarked: *"I work across issues, on topics identified by policymakers themselves. I would also describe myself as studying research utilization in policymaking, evidence-based policymaking, and research-based policymaking"*. In this sense, both the community itself, and its members are often boundary spanners.

Further evidence of boundary crossing in the community is found in grant support (Figure 1); we asked respondents to report: *What funding sources have supported your work, if any?* Respondents indicated funded by a range of sources, from private philanthropies to government agencies, demonstrating the scope and scale of commitment across the globe. We note the multiple dimensions of diversity in this list, including level of system (local, state/regional, national, and international), governance (public, private, and corporate), and the range of policy areas in which funding is available. The range is promising, revealing breadth of support across multiple sectors. However, the data also reveal the range may also pose challenges for coordinating work across sectors and geographical boundaries, for scholars' ability to access financial support across a highly distributed set of institutions, and for moving beyond a diffuse set of small research projects to a set of sustained work for the field.

[insert Figure 1 here]

A multidisciplinary space

Most members of this scholarly community identified with traditional social science disciplines, including sociology (27%), political science (20%), organizational studies (14%), psychology (12%), and economics (2%). Others identified with more interdisciplinary traditions, such as science and technology studies (8%), communication (3%), evaluation (1%), and social policy (1%). Although rare, other traditions such as law, learning sciences, and race studies were mentioned as well. Surprisingly, three disciplines with a relatively rich history of exploring research use (i.e. economics, science and technology studies (STS), and communications) are among least commonly mentioned as the respondents' disciplinary traditions, which we interpret not as an absence of work in this area but rather a sign of fragmentation between our sample and the larger universe of scholars, funders and practitioners we know to be active.

Even within the URE community, multiple key topics were described by respondents. 90% of respondents selected one or more of the following categories: policy studies (21%), knowledge utilization (18%), evidence-based or –informed decision-making, policy, or practice (17%), research impact (15%), implementation science (11%), and knowledge mobilization (9%). However, we did offer an 'other' category, which yielded an additional 26 terms to describe the field to which members contribute, most of which are mentioned but once. These include literatures more closely tied to disciplines and policy or practice areas, such as politics of evidence or communication and information studies, as well as more terms with smaller niches within the URE space, such as sociology of knowledge, research on research use, and evaluation science. Even more diffuse than the set of other literatures were the range of key words respondents used to describe themselves and their work - 263 different terms to be exact. This necessarily reflects the diverse policy areas, disciplinary traditions, and methodological approaches, but may also inhibit the ability to locate and access prior knowledge about URE work, which perpetuates silos and slows the advancement of the field.

Even though they sound similar, and many people described themselves as contributing to one or more of these areas, each category in fact describes its own research tradition, with terms, concepts, tools, and an intellectual tradition of its own, a defining feature of multidisciplinary (Wickson, Carew and Russell, 2006). Thus, for example, although common in the UK, none of the US respondents used the terms 'knowledge mobilisation' or 'research impact'. Any cohesiveness observed in the scholarship is despite these differences, and reflects the efforts of scholarship to make their research relevant to different traditions.

How are these characteristics of the community reflected in interpersonal and bibliometric analyses?

The diversity of the URE community is further reflected in our network analysis, in which we asked respondents:

1. *Scholars contributing to the academic field of research use, or*
2. *Scholars and others advocating for or 'doing' research use*

Network analysis (Figure 2) indicates that while there is a large cluster of reasonably high density indicating some coherence in terms of community, there are also several smaller, largely disconnected clusters, which broadly correspond to the policy sciences / social work / public administration disciplines. Standard network statistics confirm that the community displayed in Figure 2 is lacks cohesion, with low density (.003), high fragmentation (.990) and limited reciprocity (arc reciprocity=.02) – that is, only 2% of nominations were mutual. Further, both visually and statistically we found evidence

of disciplinary siloing. For example, we see dense clusters of education (bottom, red), health sciences (pink, at right), and organizational studies, blue, at top center). On average, the proportion of ties between disciplines versus within disciplines leans slightly toward the external, indicating that most nominated colleagues within their own disciplinary spaces (E-I index=.159), but far less than would be expected given the diversity of disciplines within the network (expected E-I=.727, $p=.000$). As suggested visually, some disciplines were more inward looking than others, with education being heavily internal (E-I=-.51), others leaning heavily external such as public health (E-I=.862), while others reported more balanced ties, such as criminology (E-I=.2) or development/economics (E-I=-.143)

We acknowledge that this analysis is incomplete, as we by no means captured the entire URE community, and we acknowledge that our responses are biased by the sample with which we started (the William T. Grant Foundation URE meeting). Nonetheless, we find the results a useful illustration of the cohesiveness of the URE field.

[insert Figure 2 here]

The potential disconnect among scholarship in URE is also confirmed in our analysis of scholarly references individuals listed as particularly influential in their work. Respondents nominated 185 references across a range of disciplines, policy issues, and publication formats spanning more than five decades. Sixty two separate books were referenced, as well as 21 reports or conference proceedings. Articles from 57 journals were identified, overwhelmingly from health and education fields. The most referenced journal was Implementation Science, with five publications, and the most nominated author was Carol Weiss, with eight distinct publications.

Further, of the 185 nominated references, 140 were nominated by only 1 person; i.e. only 45 were nominated by two or more of our interdisciplinary community of 219 respondents. The oldest was Milgram's Small World's experiment from 1967. The first burst of publications is around 1977-1985, which seems to herald an explosion of research into education, political science, and network theory. The first paper explicitly about evidence is "Weiss (1977) Research for policy's sake: The enlightenment function of social research. Policy Analysis, 3, 531-545" and the first STS paper in 1979 (Latour and Woolgar). From the 1990s onwards we see an expansion of publications about criminal justice, healthcare, and development, with continuing strong representation from education and political science.

This is evidently a small collection, but indicative of a few key features. Firstly, that there are very few papers which are cited by people from different fields – only four were nominated more than four times, and all were from politics and public policy, public sector management and evaluation. Thus, we can hypothesise that while many disciplinary conversations are being had about evidence production and use, few disciplines are managing to draw on interdisciplinary canonical literature for URE. Further, there is no evidence of these empirical studies building on core works in their own or other disciplines.

Secondly, as so few papers were nominated more than once, this indicates a highly fragmented network. This fragmentation relative to the social network suggests that individual scholars may have connections among one another but that those relationships have not yet yielded more interconnected scholarship.

Discussion

The significance and relevance of URE across disciplines and policy and practice domains has long been recognized, and has enjoyed a resurgence in the last decades as described earlier. At the same time, URE community may not reflect more traditional conceptualizations of a “field” - journals, professional associations, conferences, and employment prospects (i.e. do universities hire scholars in URE?). This raises concerns about the ability of the community to grow in size and influence, as well as its ability to accumulate and advance knowledge about the use of research in policy and practice.

So what can we learn from this preliminary work about the URE community? We began with an interest in mapping URE networks to understand of the coherence and inclusiveness of a particular scholarly community but also to point to what is needed to extend the boundaries of the community in order to advance and promote its collective work. Our findings, although only a partial view of the space, highlight the potential strengths of the URE scholarly community – its multidisciplinary, boundary-spanning, the emerging conceptual coherence of its scholarship, and its broad base of support from funders. At the same time, we observe persistent challenges that may constrain the accumulation of knowledge and formal recognition of the work as a field, namely the fragmented, often siloed nature of URE networks, and both policy- and discipline-specific language and literatures.

How can increase connectedness of the community?

Without wanting to over-interpret our findings, network analysis provides a strong indication that the URE community at present is somewhat fractured, and that more could be done to strengthen links between disciplinary silos. More traditional fields of study enjoy professional associations, conferences, and associated journals that foster sharing of ideas, opportunities for collaboration, and a shared space to set research and policy agendas. The opportunities afforded by these structures make people and knowledge more accessible, which may help the community become more influential, recognizable, and cohesive. They also promote the accumulation of knowledge across disciplines and policy sectors, which will prevent researchers mistakenly thinking they are the first to foray into this terrain.

Efforts such as the URE meeting of the William T. Grant Foundation and the Transforming URE meeting funded by the Nuffield Foundation, which motivated this work, are starting points for improving the connectedness of the field. Further, journals such as *Evidence and Policy* which are inclusive of multiple disciplines and policy sectors promote sharing of work across boundaries. However, these may not be sufficient to achieve the level of connectedness needed to truly advance the work of the community. We call for more opportunities to listen and share knowledge with each other. Most conferences and workshops (even where professing the opposite) are heavily skewed towards single disciplines or sectors. Time to meet and listen to each other, to learn the stories of work in progress is an essential ingredient if we are really going to do new and interesting work in this area.

It is perhaps not surprising that this fragmentation has continued despite the rhetorical value placed on improved evidence use by all parties. It is very challenging for researchers to work across disciplinary boundaries; to learn about and use research from other fields; to overcome limited and intermittent funding and limited career-building opportunities. Facing up to these challenges feels a vital step if we are going to improve the quality of the research in this area.

How can we make the field more inclusive?

As we think about the connectedness within the boundary of the community, we must also pay attention to those outside and at the margins. In our silos we miss the opportunity to hear critical voices that challenge the dominant discourse in this space. For example, Althaus (2020) points out the contribution of indigenous knowledge could make to public policy, specifically pointing to both the products of policy and how evidence can inform policy (Authors, 2019). Work by Naquin et al (2008) showcase a model for the development and use of evidence that is culturally congruent with indigenous peoples and validated by research and funding communities. Yet this work remains marginalized in URE.

Further, we noted earlier that the community was heavily academic. In contrast, we note that the work of knowledge mobilization – and, accordingly, important knowledge about research use and production – happens largely in the policy and practice communities. As URE focuses largely on improving ties between research and policy or practice, it follows that the community itself should be inclusive of those on-the-ground, creating richer opportunities to learn with and from policy and practice, as well as improve the flow of ideas between communities.

How can we advance this work in policy and practice?

In addition to the need to be more connected and inclusive, a potential implication of our findings is that the URE community – and the broader study of the production and use of research – is not effective in promoting the evidence it generates. In other words, increased calls for evidence-based policy generate investments in capacity for the use of research: investments which can and should be informed by the decades of literature. However, the fragmented nature of the URE community, evident particularly in our citation network, make it difficult to point to a coherent set of best practices to inform capacity-building initiatives. Further, there is a real risk that without greater coherence, our collective work will result in repetitive or competing findings rather than robust, cumulative knowledge-based approaches needed to move the needle on deeply entrenched processes in both research production and policymaking communities. This community, perhaps more than any other, needs to base its work on the best evidence of what works (in supporting the use of evidence) for whom and in what circumstances. This is an area in which there is scope for the community to work more closely with research funders as key stakeholders.

How can we sustain the community in the long term?

URE and related scholarly communities have an extensive history in research, policy, and practice, yet they have come in and out of focus over time. Our findings suggest URE has difficulty moving beyond projects that incrementally advance the knowledge base, evidenced in part by the high fragmentation in the bibliometric results. While efforts to increase the connectedness of the field may facilitate communication and contribute to a clearer body of knowledge on which to build, a more coordinated approach to supporting the work is needed. Noted above, one downside to a distributed set of funders is that there is no clear way of making sure the funding is more sustained and consistent so that we don't get pockets of excellence emerging only to disappear and risk that learning to be lost.

For funders this means recognizing that this as a cross-cutting area where there is a need for support for interdisciplinary and collaborative work. Although all funders are interested in maximizing the value of their investments, only a few take the study of evidence production and use seriously. In turn, this means that careers in this area cannot be built, so all who want to work on this problem have to do so as an 'add-on' or one-off to their 'real' research. Significant bodies of empirical and theoretical research are not easy to generate, and so where funders *do* invest, they often do so without an informed

knowledge of the real knowledge gaps, leading to waste repetition and lack of progress. Those who choose to conduct relevant PhD research face challenges in continuing to pursue research in this area due to lack of funding opportunities. Finally, although all funders are interested in maximizing their own impact, it is time to recognise that there is a broader audience for this work, and to make research about evidence production and use (whatever we call it) more broadly available, and to recognise this as a distinct area of study which funders can support together.

Conclusions

In summary, then, we argue that the community of scholars, practitioners, policymakers and funders who share interests in how evidence is made and used is poorly connected. This means that when new research is done about evidence production (under the umbrellas of ‘meta-science’, ‘research on research’, ‘use of evidence’ or some other term), it is all too easy to ignore the decades of research on this topic which has already been done. This leads to wasted research, repetitive investigations leading to the same conclusion, and, unfortunately, an over-claiming about what new research in this area can deliver. There is, in our view, no silver bullet and no easy answer to how evidence can be made and used more effectively; there is no substitute for human interaction and learning, and for joint thinking. But this takes time, investment in people and careers, and a shared endeavor founded on intellectual humility and generosity.

To deliver this, then, will take:

- Time and opportunity to identify and map all those working on these related questions
- Engagement with these different communities to understand their research traditions, terminology and contributions to this interdisciplinary conversation
- Opportunity to spot and broker potential links between parts of this community who would benefit from better interdisciplinary collaboration
- Leadership, investment and opportunity to share our learning with one another.

Only then can we truly begin to do new and exciting research with each other.

We leave these questions open for discussion, and call for further assessment and dialogue on the promise of URE. The last 15 years have brought significant momentum in the scholarship and practice of URE, and with continued engagement among government agencies, foundations, research institutions, non-profits, and other, we can collectively advance, and transform, the use of research evidence.

We urgently need a better understanding of who is working to improve use of evidence, who is studying the production and use of evidence, and who is supporting this work. Until we know how different members of our community frame and describe the set of shared problems we are engaged with, we will struggle to identify meaningful gaps or to learn from one another. The approach we have taken in this paper offers a way to begin (a) mapping and (b) engaging with the conversations ongoing in different parts of this wider universe. To advance, this more sustained, coordinated efforts and support from funders, academic associations and conferences, journals, and more. We offer some ideas and questions to both members of the URE community and those sectors best positioned to support the field moving forward.

This work has shown us the size and scope of this space, and a possible approach to begin identifying those connections which need to be built. In our view, this will take significant resources, in order to understand the different research traditions, the contributions they have made to this space, the

conversations which need to be facilitated between different communities, and the ways to build those links. We do not underestimate this task; nor do we think that we have truly begun to undertake it in this paper. Rather, we have tried to illustrate the possible scale of the task, the approach which we think may help, and to imagine the potential benefits to us all which may be realised.

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Arts and Humanities Research Council	Institute of Museum and Library Services	Office of Juvenile Justice and Delinquency Prevention
American Educational Research Association	John Fell Fund	Open Society Foundation
Annie E. Casey Foundation	Learning and Skills Development Agency	Pew Charitable Trusts
Australian Research Council	Leverhulme Trust	Public Policy Institute (Wales)
Bill and Melinda Gates Foundation	Lumina Foundation	Rockefeller Family Foundation
Brico Fund	Lynde and Harry Bradley Foundation	Scottish Government
Binational Science Foundation	MacArthur Foundation	Social Care Institute for Excellence
Cancer Research UK	Mailman Foundation	Spencer Foundation
Centers for Disease Control (U.S.)	National Association of Electrical Distributors	State Government (California)
Children's Bureau	National Center for Clinical and Translational Science	The Samaritans
David & Lucile Packard Foundation	National Institute for Health Research (U.K.)	UCL Institute of Education
Democracy Fund	National Institute of Justice	UK government
U.S. Department of Education	National Institute of Mental Health	UK Health Foundation
U.S. Department of Justice	National Science Foundation (U.S.)	UK Medical Research Council
Doris Duke Foundation	Nationally Collegiate Athletic Association	University of Cambridge
Economic and Social Research Council (U.K.)	National Center for Education Statistics	University of Geneva
Engineering and Physical Sciences Research Council (EPSRC)	Nellie Mae Education Foundation	University of Wisconsin-Madison Chancellors Office
European Union	New Jersey foundations.	U.S. Administrative Office of the U.S. Courts
European Commission	National Institute of Child Health and Human Development	U.S. Department of Agriculture
EU's Horizon 2020 programme	NIE	W. K. Kellogg Foundation
Fund for the Improvement of Postsecondary Education	National Institutes of Health (U.S.)	Wallace Foundation
Ford Foundation	New Opportunities for Research Funding Agency Cooperation in Europe	Wellcome Trust
Gates Foundation	Nuffield Foundation	William Penn Foundation
GE Foundation	New York University	William T. Grant Foundation
Harry Frank Guggenheim Foundation	Office of Juvenile Justice and Delinquency Prevention	
Helen Bader Foundation	Ohio Department of Rehab and Corrections	
Hellman Family	Ohio Department of Youth Services	
Hewlett Foundation	Ohio Office of Criminal Justice Services	
Home Office		
Institute for Education Sciences (U.S.)		

Figure 1. Self-reported funding sources.

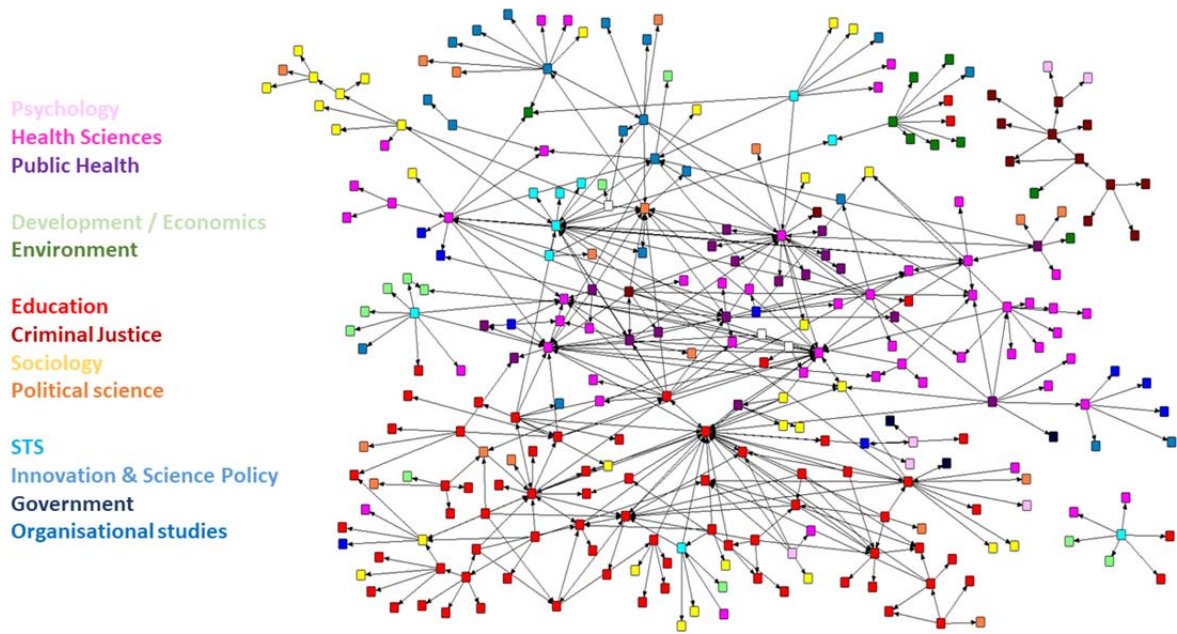


Figure 2. Social network of URE community