Information Science as Knowledge Translation
by Alex Garnett

EDITOR’S SUMMARY
In the medical field, knowledge translation is the process of putting research findings into action for patient education, practitioners’ use and further research. It is a method of codifying what has been learned through research to improve communication within the professional community. The same view of knowledge sharing may be applied to library and information science (LIS). But the LIS community has been slow to adopt and implement our own research, to gain practical value by translating theory to knowledge. Greater attention should be paid to communication within the professional community to ensure the effective spread and use of knowledge gleaned from information science research. Just as medical informatics serves knowledge transfer in the field of medicine, exploring community informatics could shed light on how other disciplines, including LIS, translate knowledge to action through communication processes within professional communities.

KEYWORDS
- scholarly communication
- information dissemination
- information transfer
- communities of practice

Just as we speak of libraries as centuries-old storehouses of knowledge, information scientists and researchers like to remind ourselves of our humble beginnings writing for a field that was once defined by the Journal of Documentation [1]. As a description of what we engage ourselves with in LIS, the title documentation now sounds alternately inaccurate and unflattering, evoking images of staid technical writers laboring to make intelligible the discoveries of some higher-order scientists and engineers. While the intervening half-century has afforded us many interesting and fruitful opportunities to explore exactly what is expressed by and how we form these articles of documentation, this publishing epistemology represents only a fraction of our current knowledge economy.

However, the original intent of documentation – which might as easily refer to the entire elaborate engine of scholarly communication – is, from a modern perspective, certainly no less noble. Although we are on the one hand social scientists and knowledge workers, we are also the gears by which the process of packaging and communicating science is turned (and then studied and improved upon). Where scholarly communication refers to an intragroup practice involving impact factors and norms of attribution, we also have science communication, referring to an intergroup process jointly undertaken by journalists and biologists, to make the scholars’ communication intelligible. Our role is arguably bisected at either end of the science communication engine: information scientists observe the interaction patterns of the biologists
before they encounter the journalists, and library practitioners strive to make the journalists’ discourse accessible by various publics.

There is a very good but little-known practitioner’s journal dedicated to what is called evidence-based library and information practice [2]. The phrase evidence-based is taken from medicine, and in particular the field of nursing, where it is used to argue for a bottom-up approach of utilizing current best evidence in making decisions about patient care [3]. Its extension to information services, which has long favored a patron-centric, on-the-ground model of decision-making, is immediately logical. It is perhaps also telling that library and information science should find so much in common with medical research and practice, where the divide between theory and practice is at least as keenly felt, often at the expense of translating and sharing valuable insights.

Luckily, the medical disciplines have discovered and codified a means of understanding these successes and failures in intra-disciplinary communication. They speak of the “diffusion of innovation” as knowledge translation (KT): the process by which research is utilized and informed by all members of professional community: for patients to learn, for practitioners to listen and for researchers to appreciate that they are not so distant from real-world concerns as stereotypes might imply [4]. The past decade has produced numerous models of knowledge translation and research utilization, each grounded in a different nursing paradigm – or, if you will, a different model of service delivery. Many of these reproduce complex infrastructures that were previously unseen [5], but which at least had the commonality of being best known by their individual practitioners.

Considering this migration of knowledge in the context of library and information science has tended in the past to raise the question of whether one is analyzing knowledge practices in a library or information organization, or using the tools of libraries and information organizations in an external context. For me, the question is not whether LIS is KT, or can be KT – it can be; it is. We as scholars and practitioners are uniquely central and marginal, admittedly better at looking inward and outward than side-to-side, and our community has been thus for long enough that we know what is at stake in measuring the implementation of research. We may have happily little to gain from actively working to adapt any highly specific models of medical knowledge translation to similar use cases in LIS, but this does not preclude paying greater attention to the ecosystem of communication in our professional communities.

Even so, we would do well to acknowledge that there is usually less at stake in information-seeking transactions than in caregiver decision-making. KT in medical research has been said to facilitate “bench-to-bedside” triage, and while we might entertain some too-clever “tweed-to-reference-desk” metaphors, this urgency challenges our freedom to navigate both academic and professional communities at our discretion. I do not mean to pretend that every facet of information science research would equally benefit from being directly informed by practitioner knowledge. We often lament this perceived disconnect in our academic community without acknowledging that our interests are simply different, and I do not mean to prescribe yet another solution where there is no standing problem.

Still, there are countless means by which information science research would benefit from due attention to KT. For example, there has lately been renewed interest in analyzing how we motivate data-driven research when the questions that we seek to answer are driven less by a traditional model of hypothesis formulation than by the availability and the nature of the data itself [6]. Any theoretical basis for this
course of action is as problematic as it is pragmatic, but I would think that it could be made less so by a librarian’s old, reliable bottom-up “needs assessment.” I have talked of the freedom arising from the indirect pathways in LIS research, yet the academic community would hardly fail to benefit from a more open dialogue on which problems in LIS should be approached and in what way. If the idea sounds too simple, then you have perhaps been away from the practitioners’ literature too long; if it sounds impossibly pragmatic, given the expectations of academic communities, you have been away just long enough.

By the same token, information science might just as easily observe the process of knowledge translation in other disciplines. The idea of measuring the process of scholarly communication is not at all foreign to those who engage with scientometrics, but this research seldom takes a full view of the knowledge ecosystem (due admittedly in part to the limitations of scientometric data). Could scientometrics provide a new means of understanding the outcome of these collaborations? There is a peculiar Pollyanna moment that takes place here, albeit one that we have come to know rather well. While we rightly lament a practitioner community’s perceived lack of interest in academic research, we simultaneously acknowledge that they are working in sufficiently unique domains in nine out of 10 cases. The question, then, is not how KT can bridge this divide but how we can use KT to better understand this phenomenon.

Where scientometrics provides a logical quantitative component to KT, some commonly used methods of social network analysis extend a shared vocabulary. For example, KT employs what is called the diffusion of innovation theory for measuring the dissemination of ideas and their utilization in research and development [4]. There are obvious unexplored synergies here with information scientists’ study of communities of practice – groups that evolve through the practice of information sharing.

Remember that LIS research is often speculative or experimental and not always intended to inform some kind of tangible practice. This intention would seem to conflict with the accepted definition of KT. In the medical disciplines, this uneasiness is resolved by speaking separately of moving from knowledge to practice, or from knowledge to policy. While library and information science would probably not be able to point to exactly two upward pipelines as such (just as I imagine this is to some degree a simplification for medical KT) this possibility is a compelling thought experiment for anticipating the uptake of LIS research. Currently, the only such path that can be drawn from the KT literature into the LIS collective is through research in medical informatics. This approach makes sense – as an applied domain, medical informatics is concerned with how medical research and service delivery are enabled by the use of information technology, just as in KT – but it does beg the question of why KT should be inseparable from the medical disciplines. What one LIS researcher may call community informatics may very well address some of the same questions posed by KT. Rather than be forgiven a cross-disciplinary reluctance to use the same vocabulary, we should probe these synergies, many of which may be interesting KT case studies in their own right.

Outside of the medical disciplines, the underlying concepts of KT could be easily as salient for other disciplines with a similar professional and academic structure, such as education or law. It is important to remember that while library and information science is not the only research community to face a KT schism, we are almost certainly the most eager and able to understand the meta-scientific processes that influence the uptake of research. We in LIS seem patently to love studying ourselves;
the key is to make this examination an outward-looking process. In order for us to better understand the “why” and “how” of knowledge sharing and collaboration, we should work on understanding its antecedents – and its stakeholders. To have earned the expectations of conducting research in an academic vacuum is quite a different matter from actually doing so, and greater engagement with the KT process can help to guide us from here.

Resources Mentioned in the Article


