Evidence Based Library and Information Practice

Commentary

The Evolution of Evidence Based Library and Information Practice, Part II: The Broader Professional Purpose of EBLIP

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Part I in this series of commentaries in the December 2012 issue provided a consensus definition and description of EBLIP. The five steps of the EBLIP process consist of:

1. Formulating an answerable question
2. Searching for the evidence
3. Critically appraising the evidence
4. Making a decision and applying it
5. Evaluating performance

Part I reviewed how answering different types of questions raised in step one require different types of evidence. Competing evidence, conceptualized primarily in terms of applied research, study design, and quality of the evidence, will guide the third step of critical appraisal. The completed EBLIP process finally should lead the busy practitioner to an informed decision based on the best available evidence.

Part II in this commentary series delves into the broader purpose, or function, of EBLIP within the library and information professions. The deceptively easy answer to this question hinges simplistically upon defining EBLIP as a decision making process, and that would be a technically accurate answer. This commentary explores the deeper function of EBLIP that relates to professional identity and practice, however. By exploring these deeper meanings we might be able to chart our journey toward nurturing and sustaining EBLIP in the future.

Professionalism in Practice

The everyday use of the noun or adjective "professional" suggests that the word has a common, widely understood meaning. We often refer to ourselves as "professionals" or evaluate others' actions by seemingly obvious standards of "professional" behavior.

Sociologists have long found the concept of "professional" to be problematic. For this reason they routinely express difficulty in arriving at a standard definition. Defining the term "professional" appears to be difficult because the meaning of the term changes across time and culture, and even might be further confounded with other intermingled variables such as social status or economic monopoly power.

Some sociologists have offered some fairly durable definitions that can provide some reference points for this commentary. These definitions reflect the changing times and contexts of these sociologists. Freidson (1973) depicts a profession as making "claim to special esoteric competence and to concern for the quality of its work and its benefits to society, [and] obtains the exclusive right to perform a particular kind of work . . ." (p. 22). He notes that professions date back to the guilds and crafts. Larson (1977) and Macdonald (1995) both focus upon the exclusive right, or monopoly power of professions. Beckman (1990) distills two core characteristics of the professional: autonomy and required formal training (pp. 113-138).

Brante (1990) chronicles the definition from a traditional to a more modern, cynical mode. In the traditional sense, Brante tells us that "Professions are distinguished from other occupations by prestigious attributes such as strict ethics and integrity, a universalistic and functionally specific relation to their clients, and, above all, by employing skills based on scientific knowledge" (p. 76). Cynically, Brante then depicts professions as highly educated keepers of monopolized knowledge: "Professions are seen as instruments, as resources by which their members can gain higher income, power, and prestige – a kind of collective egoism" (p. 76). Brint (1994) lists some common features of professions: a coherent ideology, higher education as a necessary condition, autonomy, credentialing, and an adequate degree of self-governance to thwart external managerial control (p. 6). Gleeson and Knights (2006) document how professions are adapting to changing circumstances that tend to reduce their independence due to oversight by external authorities. They conclude that professionals are nimbly adapting to and even thriving despite some societal restrictions on their professional autonomy.

Looked at another way, we can define professions in terms of their enduring core functions in society. This elemental approach allows us to define physicians as those persons who diagnose, treat, and advise patients on matters of disease and health. Lawyers interpret, apply, and advocate on matters related to the law. Educators assess existing knowledge or skills in learners so they can design appropriate learning experiences for these learners. Librarians and other information professionals identify, organize, and make accessible authoritative information for specific user populations. These professions have served these core functions for society for the past 10, 20, 100, or more years. Similarly, these professions most likely will serve these functional roles in society for the foreseeable future.

A New Discipline?

Could the appearance of EBLIP be the harbinger of a new and distinct academic discipline? Could EBLIP be currently unfolding in ways that resemble the origins of the now well-established disciplines of Chemistry, Political Science, and Psychology, just to cite a few examples? Some limited evidence exists to support this thesis. Several investigators have attempted to track the emergence of new

disciplines. Ben-David and Collins (1966) trace the arc of Psychology's formation as a discipline distinct from other disciplines. They devote special attention to its break from Philosophy, generally considered to be its main discipline of origin. They discover three conditions that define this event of individuals beginning to identify themselves as subject area researchers in Psychology: (a) individuals engage in research specific to Psychology;
(b) they do not identify themselves with any disciplines in addition to Psychology; (c) they come to recognize their group identity as scientific psychologists (pp. 453-454).

They furthermore identify with a new set of research methods specific to Psychology. Their group numbers swell over time as more and more adherents flock to the new discipline. Most EBLIP adherents would agree that they experience both individual and group self identification with the framework and applied research methods of EBLIP. They would not identify themselves apart from their parent professions of library and information practitioners, in direct contrast to the early adherents of Psychology. Indeed, attendees at biannual EBLIP conferences often introduce themselves to one another by their type of professional sector such as academic, school, public, or special librarians. They also identify themselves by their areas of functional specialty such as web design, instruction, or collection resources.

Mullins (1973a) articulates four stages for the formation of a separate disciplinary identity. The first "normal stage" consists of low (or no) levels of collaboration or communication as individuals work alone in isolation. The second "network stage" witnesses more frequent collaboration and communication among individuals. Publication of consensus-based published articles likely occurs in the transition to the next stage. The third "cluster stage" leads colleagues at this stage to work together at the same institution. More broadly, colleagues mutually support each other's efforts. Their views meanwhile begin to diverge from their parent discipline. Importantly, these colleagues have graduate students who both study and work under their guidance. Clusters can form, then dissipate, and then re-form elsewhere as the new discipline takes root. The fourth "specialty stage" consists of greater institutionalization and permanence in full time positions of faculty at academic centers. Adherents establish journals in the discipline while secondary sources such as textbooks codify the discipline. The new discipline has a theoretical orientation, a group consciousness, research sites, training centers for teaching students, and the aforementioned secondary publication sources (Mullins, 1973a, pp. 12-35). Mullins generates additional confirmation for his four stages of discipline formation in his studies of Molecular Biology (1972) and Ethnomethodology (1973b). Mullins continues to influence investigations of disciplinary formation. Just last year, for example, Alcock (2012) used Mullins' work to describe the establishment of the new discipline of Evolutionary Medicine.

Feist (2006) adapts and applies Mullins' four stages of disciplinary formation with his own three stage disciplinary formation framework. Feist applies his framework to the formation of several closely related disciplines: Philosophy of Science, History of Science, Sociology of Science, and Psychology of Science. Feist outlines his three stages as: isolation, identification, and institutionalization. The first "isolation stage" resembles Mullins' first stage closely with individuals having no clear self or group identification as members of a distinct discipline. The second "identification stage" consists of colleagues recognizing their shared interests and identification with the discipline. They organize semi-regular conferences and establish their own leading disciplinary journal. Leaders in the field usually establish training centers for students during this stage. The third "institutionalized stage" leads to annual conferences, one or more leading disciplinary

journals, and established professional societies devoted to the discipline (pp. 8-36).

The frameworks offered by Mullins (1973a) and Feist (2006) closely resemble one another. Both researchers outline stages and the elements within those stages that EBLIP also has experienced during its own development. EBLIP certainly had the first stages of isolation with its early advocates operating as individuals within their own regions or nations and without knowledge of one another. This commentator certainly experienced this isolation until his UK colleague Bruce Madge took his Medical Library Association continuing education course on EBLIP in Chicago in 1999. Mr. Madge then connected this commentator with Andrew Booth in the UK, who also had been working largely in isolation. Booth's first international EBLIP conference held in Sheffield during 2001 attracted other EBLIP adherents from elsewhere, thereby setting in motion an advance toward what would appear to be Mullins' second network stage comprised of regular communication and collaborations. Consistent with Mullins' third cluster stage some colleagues interested in EBLIP have worked in mutually supportive ways at the same institutions such as Sheffield University, the University of North Carolina, the University of New Mexico, the University of Alberta at Edmonton, the University of Salford, and Queensland University of Technology in Brisbane. The creation in 2006 of the internationally oriented, peer reviewed journal *Evidence Based Library and Information Practice* certainly complies with Mullins' third cluster stage. Even Booth and Brice's *Evidence Based Practice for Information Professionals* (2004), while a bit dated in parts, continues to serve as an open access textbook of sorts. Connor's book *Evidence Based Librarianship* (2007) serves as less a textbook than as a series of vignettes on how EBLIP can be applied in various practices.

There are critical differences between EBLIP and a discipline. EBLIP does not follow Mullins' stages in the articulation of a new EBLIP theory distinct from the parent library and information professions. Nor has EBLIP attracted graduate students in droves as found in Mullins' third cluster stage. Most EBLIP practitioners seem to apply the EBLIP process with its accompanying skills and knowledge to their own specific sectorial contexts such as academic or school settings. Furthermore, practitioners apply the EBLIP process in their respective specialties such as collection resources, education, or information access.

Similarly, EBLIP has followed Feist's first two stages of isolation and identification closely. EBLIP has not established training centers with numerous students as in Feist's second stage, however. Nor do EBLIP practitioners and researchers identify themselves as apart from their parent professions as predicted by Feist. Thus, while the stages outlined by Mullins and Feist seem tantalizingly close to describing the evolution of EBLIP, there are important and irrefutable elements that diverge from the formation of a separate discipline. At the risk of attributing motivations to EBLIP adherents, there appears to be no present or emerging desire among EBLIP researchers and practitioners at this time to distinguish themselves from their parent professions.

An Invisible College?

EBLIP might not apply to the stages or characteristics of a new discipline since it lacks the accompanying physical world manifestations such as academic or professional school edifices. Nor do EBLIP practitioners adhere to identities or roles apart from their parent professions. Could EBLIP then instead be functioning more like an "invisible college" that exerts tremendous influence without presenting many physical clues of its existence to those outside of the professional community? An invisible college pertains to the "intentional cooperative work of a group of scientists who work on the same problems, not necessarily in the same place" (Kantorovich, 1993, p. 190).

Diana Crane (1972) employed the term "invisible college" as a way of explaining the difficult-to-decipher social interconnections of scientific researchers involved in instances of accelerating production of knowledge as measured by dramatic surges in the volume of publications. Garfield, Sher, and Torpie (1964) along with de Solla Price and Beaver (1966) already had begun to observe invisible colleges in action. Crane studied two specific invisible colleges in great depth and built upon others' work to illuminate this phenomenon otherwise unnoticed to others outside those in a group of researchers. Crane discovered that these social networks thrived on publications so that "not only can a scientist be influenced by publications written by authors whom he has never met, but he can also receive information second-hand through conversation or correspondence with third parties" (pp. 13-14). As the phrase "invisible college" might suggest, Crane noted that "there is no formal leadership in a social circle although there are usually central figures" (p. 14). Even when they have never met certain members of their invisible college, the members nevertheless know of and about one another. This "social interaction facilitates the diffusion of ideas that in turn makes possible cumulative growth of knowledge in a research area" (p. 26). Crane tracks the historic life cycles of some invisible colleges that grew so exponentially that she compared their growth to a contagion. After some time, Crane notes that collective interest tapered, and then the members of invisible colleges acquired new interests and soon joined other invisible colleges to pursue their new interests. Interest in invisible colleges continues to thrive, particularly with the application of new information technology (Howard, 2011).

EBLIP strongly resembled an invisible college during its first five or so formative years. Once the EBLIP process had been discussed and codified, however, the invisible college dispersed as most of its members joined other invisible colleges. The numerous new invisible colleges now are applying the EBLIP process and the associated skills and knowledge in varied ways to advance our profession. When this commentator reflected upon his own membership in contemporary invisible colleges he enumerated his membership in at least five such social networks. Undoubtedly, many other *EBLIP* readers will be able to link their own research interests to membership in at least a few invisible colleges. EBLIP as a group activity comprised of practitioners who read about EBLIP and attend EBLIP conferences has grown too large and has become too diverse to be described as a single invisible college.

A New Paradigm?

Could EBLIP be a new paradigm for library and information practice? Several authors in this journal and elsewhere have described EBLIP as a "paradigm" within the past few years. Carol Gordon in her monumental two part series of articles has elaborated most extensively upon EBLIP as a paradigm in her own theory building in regards to school libraries engaged in "Evidence Based Information Literacy Instruction" (2009a, 2009b). Gordon conceptualizes EBLIP as the dominant paradigm that "serves a social and cultural purpose in molding a culture of inquiry for information literacy instruction" (2009a, p. 69). She adds that EBLIP facilitates the inclusion of evidence in the cycle of improvement within teaching (2009a, p. 69). Later she describes EBLIP as the paradigm that provides the "sets of beliefs and values" for her theory-building to occur (2009a, p. 73). In her second article Gordon describes EBLIP as a paradigm that "consists of the beliefs, assumptions, and values and techniques accepted by a community of practitioners" (2009b, p. 23). Gordon then introduces the paradigm-related concepts of anomaly, criteria for selecting questions, and puzzle solving. Gordon's focus remains fixed ultimately on the use of the EBLIP paradigm simply as a platform for her own theory of library literacy instruction. Gordon does not focus on the durability of using the concept of a paradigm to explain the

purposes of EBLIP. Thus, Gordon does not elaborate upon EBLIP as a paradigm itself.

Andrew Booth and Anne Brice (2007) had previously described EBLIP as a paradigm in their tracing the development of EBLIP. Yet, their focus also turns out to be elsewhere. Booth and Brice use the term "paradigm" instead as a reference point in their analysis of how EBLIP has changed during the years 2001-2007. They assert at the outset that EBLIP serves the role as a paradigm. Booth and Brice seem to assume that *EBLIP* readers already understand what they mean by their use of the term "paradigm." Given the great many EBLIP readers who are well-versed in scientific research, their assumption has some basis. Their unreferenced and unexplained assertion about an EBLIP paradigm, while intriguing, still leaves unaddressed the central question of this commentary.

Thomas Kuhn in his classic book *The Structure of Scientific Revolutions* (1970) popularized the use of the term "paradigm" with his description of how scientists conduct their research. Kuhn devotes more than 200 pages in his book to defining and describing the concept of a "paradigm" in great detail. The following summary only touches upon those aspects of Kuhn's work most crucial to answering the question as to whether EBLIP represents a paradigm.

Kuhn (1970) notes that in everyday language paradigm refers to "an accepted model or pattern" (p. 23). The *Oxford English Dictionary (OED)* (Paradigm, 2005) traces the word paradigm from the year 1483 forward. The *OED* defines a paradigm in contemporary terms as "a pattern or model, an exemplar; (also) a typical instance of something, an example." In contrast, Kuhn asserts that scientists recognize a paradigm as consisting of those "universally recognized scientific achievements that for a time provide model problems and solutions to a community of practitioners" (p. viii) to guide their future inquiry. Within a group of scientists a paradigm can represent "the entire constellation of beliefs, values, techniques, and so on shared by the members of a given community" (p. 175). The concrete models or examples ("exemplars") of solutions to those recognized scientific problems occupy specific regions of the paradigm. Scientists adhere to a paradigm based on the strength of its representation of reality. Incidentally, scientific research can exist prior to the establishment of a paradigm in a condition Kuhn depicts as "early fact-gathering" and as a "nearly random activity" (p. 15). Kuhn seems at this juncture to be referring to activities such as John Stuart Mill's inductive exercises (Wilson, 2012). Despite this proto-paradigmatic possibility, Kuhn asserts that a paradigm offers a far stronger framework for identifying and solving problems compared to these pre-paradigmatic conditions.

The everyday (i.e., non-scientific) use of the term paradigm defined by Kuhn (1970) as "an accepted model or pattern" (p. 23) does seem to fit EBLIP closely. The vast majority of readers of this journal and attendees at international EBLIP conferences undoubtedly would agree that EBLIP serves as a sequential process (or "model" or "pattern") for reliably reaching informed decisions. The first installment in this commentary attempted to outline the other consensus-based characteristic features of EBLIP.

Kuhn (1970) devotes his book instead to describing a scientific research context in his use of the word paradigm. Gordon (2009a, 2009b) does cite and quote Kuhn repeatedly, so her definition most likely aligns with Kuhn. The deliberate use of the term paradigm employed by Booth and Brice (2007) suggests that they most definitely mean it in its more scientific, Kuhnian interpretation despite the fact they never reference Kuhn. Otherwise, Booth and Brice likely would have used instead synonyms such as "framework," or "model," or "pattern" with great regularity when referring to EBLIP. As already noted, many in the *EBLIP* readership are familiar enough with scientific methods to

an extent that they at least recognize the Kuhnian connection.

Kuhn (1970) clearly displays his reluctance to depict any activity outside of the physical sciences as influenced by paradigms. Virtually all of his examples stem from the history of the physical sciences, perhaps because of his background as a theoretical physicist. At several junctures in his book he refuses even to accept that social scientists might employ paradigms. Beyond those specific topical boundaries he states "Though scientific development may resemble that in other fields more closely than has often been supposed, it is also strikingly different" (p. 209).

One might protest that a single philosopher or historian's restriction of the term "paradigm" to the physical sciences should not be sufficient reason to restrict the concept to only the physical sciences. Indeed, the pre-paradigm state described by Kuhn does seem to resemble how applied research in librarianship fitfully lurched forward prior to the establishment of EBLIP. And, EBLIP seems to possess some of the same features of a paradigm as in the realm of the physical sciences. Many in EBLIP seem to share the same values of scientific rigor, an almost overbearing skepticism, transparency, and the recognized superiority of some forms of evidence over others. The burden of proof does seem to fall on someone within the ranks of library or information practice to identify 20-30 examples that illustrate how EBLIP resembles at least one paradigm in the physical sciences. Until such an exposition appears, we have to reserve judgment on categorizing EBLIP as a Kuhnian paradigm.

This commentary might appear to leave the reader empty handed, as it suggests that EBLIP fits neither the description nor the stages of an emerging subject discipline. EBLIP might have been an invisible college during its early formative and codification years, but has since dispersed into numerous other invisible colleges. EBLIP does resemble a paradigm in the everyday sense of the word. Whether EBLIP serves as a paradigm in the Kuhnian sense bears closer examination, although this would require an ambitious intellectual undertaking to address adequately. At least this commentary has discounted some plausible purposes – or functions – of EBLIP within our profession. Part III of this commentary will discuss, among other explanatory pursuits, whether or not EBLIP represents a movement within our professions.

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