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Accepting Knowledge Management into the LIS fold : an interdisciplinary approach

Michael JD Sutton
Graduate School of Library and Information
Studies
McGill University
Montréal, Québec, Canada

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Abstract

The goal of this editorial is to describe the emerging stimulus that could drive joint ventures between business, management, and library and information science schools in offering Knowledge Management (KM) curricula. The basis for this thought-piece are modified excerpts from the authors forthcoming dissertation entitled *Examination of the Historical Sensemaking Processes Representing the Development of Knowledge Management Curricula in Universities: Case Studies Associated with an Emergent Discipline*.

Article

Explaining Knowledge Management (KM) is a challenge for a number of reasons. KM does not appear to possess the qualities of a discipline. If anything, KM qualifies as an emerging field of study. Those involved in the emerging field of KM are still vexed today by the lack of a single,

comprehensive definition, an authoritative body of knowledge, proven theories, and a generalized conceptual framework. Academics and practitioners have not been able to stabilize the phenomenon of KM enough to make sense of what it is and what it comprises.

Even so, there have been noteworthy initiatives to establish new educational programs to teach KM (Sutton, 2002). There is a substantial feeling that whatever this phenomenon of KM is, KM is a significant phenomenon affecting everything and everyone with which it comes into contact (Bouthillier & Shearer, 2002). Because of its increased visibility in university educational programs, I am led to wonder whether the current fragmented approach of exclusivity should be focused more along the lines of inclusive joint ventures to offer KM curricular within interdisciplinary programs of business, management, and library and information science schools.

Why is there escalating interest in developing educational programs to teach KM? Why is knowledge itself considered a new source of wealth? Why is the economic stewardship and control of knowledge considered so important today? All these questions relate to a global perception that knowledge is the new currency of an emerging economic order. This paradigm had its roots in the work of Peter Drucker (1959), who typified the knowledge worker

in *Landmarks of Tomorrow: A Report on the New 'Post-Modern' World* as an individual who spends much of his/her time processing symbols with the intellect, not manufacturing anything with the hands. Other authorities expanded upon the knowledge industry and post-industrial economy concepts, as expressed in the seminal works of Fritz Machlup (1962), Daniel Bell (1973), Manuel Castells (1996), and most recently by Nico Stehr (2002).

Through his insightful vision, Drucker (1991) furnished western nations, and more recently all nations, with a foretaste of the emerging knowledge economy and the foundation for a new measure of productivity. Economists, like academics and practitioners involved with KM, use a wide range of disparate definitions to describe the emerging knowledge economy. William Horton (2001), a KM expert and organizational learning pundit, proposed a very simple definition, which is useful for starting the discussion of the knowledge economy:

A knowledge economy [is] one where success depends more on knowledge than on labor and capital. ... It is the unique knowledge of the company that is most important in determining its success. ... Knowledge in many ways is the new gold standard (p. 6-7).

Dominique Foray is a proponent of the new sub-discipline of economics referred to as the "knowledge economics." In *The Economics of Knowledge* Foray (2004) suggested that the global shifts in investments and activities associated with knowledge-intensive firms were causing radical economic changes. David & Foray (2002) described the apparently profound conceptual transformations and structural changes they saw taking place globally.

Cross and Israelit (2000) and Burton-Jones (2003) asserted that the dislocation taking

place was providing new opportunities to increase business performance by fostering learning within organizations at the individual, group, and enterprise levels. An organization that builds a culture based upon learning will generate new knowledge, innovation, and creativity that can result in new core competencies for the affected knowledge workers. Errors and mistakes are embraced as experiential learning that produces lessons learned and best practices—knowledge that can be recycled to increase the wealth and performance of the overall enterprise, instead of being considered a drain on the bottom line. Neef (1999) sums this up by describing how KM is a consequence as well as the enabler of the knowledge economy:

[Knowledge Management] is a critical set of policies and practices that will boost an organization's competitive position in the new knowledge-based economy by optimizing the collaboration and knowledge sharing among employees and providing them with the information and knowledge that they need to improve operational efficiency, to innovate, and to sense and respond to new opportunities in the marketplace. (p. 78)

In the *Economic Impact of ICT: Measurement, Evidence, and Implications*, the Organisation for Economic Cooperation and Development (OECD) (2004a) described the cause-effect relationships of Information, Communications and Technologies (ICT) investments, production, and use in OECD countries. The impacts occurred at an individual level as well as an aggregated level, affecting productivity growth, innovation, and business performance. At the firm level there were dramatic positive effects due to knowledge-sharing, while at the national levels there appeared to be limited impact due, most likely, to the inability to fully exploit the ICT and the lack of information and knowledge-based competencies that would make

possible a multiplier effect upon productivity. The OECD has recently published serious studies and critical research describing the emergence of this economy and its potentially dramatic effect upon economic development and education in both the industrialized and third-world nations (OECD, 2000, 2001, 2003a, 2003b, 2004b).

An acceptable definition of "knowledge management" should encompass the concept of knowledge and the valuation associated with intellectual assets, as suggested by Dalkir (2005). I synthesized three well-formulated definitions discovered during my doctoral dissertation research (Becerra-Fernandez, et al., 2004, p. 30; Bennet & Bennet, 2004, p. 227; Dalkir, 2005, p. 3) into a comprehensive definition:

Knowledge Management is the deliberate and systematic coordination of the communications, people, processes, structure, and technology of an organization in order to produce sustainable competitive advantage or long-term high performance for the organization. The value and utility in the management of knowledge accrues to the organization through innovation, reuse, and organizational learning. The process of coordination is achieved through the convergence of personal, group, and enterprise action on a knowledge life-cycle. The knowledge life-cycle integrates the identification, creation, acquisition, capture, securing, production, publication, sharing, leveraging, and eventual disposal of knowledge resources and assets within an organizational memory.

Gartner Group, Caldwell, et al. (2003) described the different topics of KM and their current state of interest by businesses in the *Hype Cycle for Knowledge Management, 2003*. Gartner reiterated that KM was becoming a critical business

discipline for enhancing competitiveness and supporting decision-making. The more recent availability of integrated KM applications and tools, which did not exist before 2001, has led to more widespread adoption in the marketplace. In the opinion of Gartner Group, Caldwell, et al. the tools were being absorbed at different rates within the enterprises based upon the maturity levels and hype associated with each tool.

A survey conducted by Swiss accounting firm KPMG (2003) of the business leaders of the top 500 organizations in the UK, France, Germany, and the Netherlands produced rather sobering results. According to KPMG, during the 5 year period between 1999 and 2003 the practice of KM in the public and private sectors was approaching a high maturity level. However, business leaders reported that although they considered knowledge a strategic asset (80%), almost the same percentage of respondents felt they were missing out on business opportunities because they had failed to exploit their organizations' available knowledge. The respondents identified a pressing need to acquire methodologies and tools to exploit these key knowledge domains across processes and business functions critical to their enterprise. This requirement was underscored by the lack of employee skills and competencies in the capability to successfully conceptualize, exploit, manage, and implement KM projects, i.e., the lack of an experienced and educated workforce that understood and could direct the management of knowledge in their enterprises.

KM, as an emerging field, is quite young—less than three decades "young" if the milestone used to peg its beginning stems from the introduction of the phrase "knowledge management". Anecdotally, the formal birth of this emerging field was ascribed by Beckman (1999) to have taken place when Karl Wiig originated the term at a 1986 United Nations International Labour Organization conference in Geneva,

Switzerland. On the other hand, Koenig and Srikantaiah (2000) have located an earlier use of the term in Marchand (1985). Some academics believe that KM has almost achieved the status of a discipline (Jennex, et al., 2005; Ponzi, 2004; Stankosky, 2005). Most academics as well as practitioners agree that the term was poorly defined and ambiguously described (Den Hertog & Huizenga, 2000; Dixon, 2000). KM is considered by many as an interdisciplinary field (Al-Hawamdeh, 2005).

Where should academic educational programs that teach KM sit within the academy? The Library Association (LA) of the UK recently responded to a government white paper issued by the Department of Trade and Industry (1998) entitled *Building the Knowledge Driven Economy*. The LA suggested that libraries must support innovation and that librarians will play a "central role in the mapping of organisational knowledge resources and encouraging a cultural shift in knowledge-sharing practices in business centres" (1999, ¶ 6). Library and information professionals are trying to reengineer their education to cope with the transformation taking place because of KM initiatives.

Discontinuities are being felt throughout the LIS profession, and KM is one of the critical triggers that are affecting how the profession will evolve and what new competencies must be incorporated into the curricula (Beheshti, 1999; KALIPER Advisory Committee and ALISE, 2000; ur Rehman & Chaudhry, 2004). An extensive suite of competency matrices based upon job roles and responsibilities of KM professionals were described in detail in TFPL (1999) and Volume I and II of the United States Department of the Navy's (2001a, 2001b) *Career Path Guide for Management of Technology, Information, and Knowledge*. Many of the skills and competencies described are parallel to those used to describe the roles and skills of special librarians.

If we assume that KM is interdisciplinary, then it should draw upon a suite of other topics, fields, and disciplines in order to activate its value to the organization, such as:

- Artificial Intelligence, Expert Systems, and Knowledge Engineering;
- Business, Commerce, and Management;
- Business Intelligence/Competitive Intelligence;
- Business Process Management and Re-engineering;
- Complexity Science and Chaos Theory;
- Communications and Journalism;
- Computer Science;
- Cybernetics;
- Data Warehousing and Data Mining;
- Ecology;
- Economics;
- Entrepreneurship and Innovation;
- Health Informatics;
- Organization Studies;
- Organizational Behaviour;
- Organizational Communications;
- Organizational Design;
- Organizational Memory;
- Organizational Learning;
- Organizational Theory;
- Information Technology and Telecommunications;
- Leadership;
- Library and Information Science;
- Management Information Systems/Information Systems;
- Marketing;
- Strategic Management; and
- Systems Thinking and Theory.

As an interdisciplinary professional, I have personally witnessed the challenges associated with the fragmentation and interdisciplinarity of the emerging field of KM in its practice, in its professional emergence, and in the academy's attempt to educate learners. I am continually amazed that many of my fellow professionals and academics in the

business, management, and library and information science fields have not yet embraced the opportunity we have as a group to harness the lead in KM. The field requires informed and critical leadership from the academy as well as from business, industry and government in order to set priorities, develop policies, and architect new learning programs.

KM appears to fit quite appropriately into the undergraduate and graduate curriculum of a business, management, and library and information science curricula (Sutton, 2002). KM demonstrates a pervasive quality and impacts all fields and disciplines. All three schools, although founded on totally different paradigms, theories, and conceptual frameworks, need to establish priorities to bridge the gaps in KM teaching and research instead of maintaining traditional silos of knowledge. Too many university departments waste time haggling over which school will get credit for a student in an interdisciplinary program. There is a significant business value proposition for building a joint interdisciplinary curriculum.

KM will continue to demonstrate considerable impact on the academy, business and management practices, and library and information science sources and services. We need immediate and serious consideration—possibly a KM Educational Manifesto—for the joint development of KM curricula amongst business, management, and library and information science faculties. I strongly believe we are on the cusp of an unprecedented opportunity to work alongside each other to architect the mix of education to help learners acquire the competencies and skills of the new knowledge workers. However, we must expand our capability to at least confer, consult, and collaborate before we can pragmatically demonstrate the business value proposition and the academic viability of this kind of joint venture. I would welcome hearing from others interested in a dialogue on KM educational programs and curricula.

References

- Al-Hawamdeh, S. (2005). Designing an interdisciplinary graduate program in knowledge management. *Journal of the American Society for Information Science and Technology*, 56(11), 1200-1206.
- Becerra-Fernandez, I., Gonzalez, A., & Sabherwal, R., (2004). *Knowledge management: Challenges, solutions, and technologies*, (1st ed.). Upper Saddle River, NJ: Prentice Hall.
- Beckman, T. J. (1999). The current state of knowledge management. In J. Liebowitz (Ed.), *Knowledge Management Handbook*. Boca Raton, FL: CRC Press.
- Beheshti, J. (1999). Library and information studies curriculum. In *Proceedings of the Congress on Professional Education*. Chicago, IL: American Library Association.
- Bell, D. (1973). *The coming of post-industrial society - A venture in social forecasting*. New York, NY: Basic Books.
- Bennet, A., & Bennet, D. (2004). *Organizational survival in the New World: The intelligent complex adaptive system*. Boston, MA: Butterworth-Heinemann.
- Bouthillier, F., & Shearer, K. (2002). Understanding knowledge management and information management: The need for an empirical perspective, *Information Research*, 8(1). Retrieved September 5, 2006, from <http://InformationR.net/ir/8-1/paper141.html>
- Burton-Jones, A. (2003). Knowledge capitalism: The new learning economy. *Policy Futures in Education*, 1(1), 143-159.
- Castells, M. (1996). *Rise of the network society* (Vol. 1). Oxford, UK: Blackwell.

- Cross, R. L., & Israelit, S. B. (Eds.). (2000). *Strategic learning in a knowledge economy: Individual, collective and organizational learning process*. Boston, MA: Butterworth-Heinemann.
- Dalkir, K. (2005). *Knowledge management in theory and practice*. Boston, MA: Butterworth-Heinemann (Elsevier Science).
- David, P., & Foray, D. (2002). Introduction to the economy of the knowledge society. *UNESCO*.
- Den Hertog, J. F., & Huizenga, E. (2000). *The knowledge enterprise: Implementation of intelligent business strategies*. London, UK: Imperial College Press.
- Dixon, N. M. (2000). *Common knowledge: How companies thrive by sharing what they know*. Boston, MA: Harvard Business School Press.
- Drucker, P. F. (1959). *Landmarks of tomorrow*. New York, NY: Harper and Row.
- Drucker, P. F. (1991). New productivity challenge. *Harvard Business Review*, November-December, 69-79.
- Foray, D. (2004). *Economics of knowledge*. Cambridge, MA: MIT Press.
- Gartner Group, Caldwell, F., Linden, A., Miklovic, D., Morello, M., Knox, R., & Logan, D. (2003). *Hype cycle for knowledge management, 2003*. New York: GartnerGroup.
- Horton, W. (2001). *Knowledge management: A practical, evolutionary approach*. Boulder, CO: William Horton Consulting.
- Jennex, M. E., Croasdell, D., Olfman, L., & Morrisson, J. (2005). Knowledge management, organizational memory & organizational learning at the Hawaii International Conference on Systems Science. *International Journal of Knowledge Management*, 1(1), 1-7.
- KALIPER Advisory Committee & Association for Library and Information Science Education. (2000). *Educating library and information science professionals for a new century: The KALIPER report*. Reston, VA: Association for Library and Information Science Education.
- Koenig, M. E. D., & Srikantaiah, T. K. (2000). The evolution of knowledge management. In T. K. Srikantaiah & M. E. D. Koenig (Eds.), *Knowledge management for the information professional* (pp. 23-36). Medford, NJ: Information Today, Inc.
- KPMG. (2003). *Insights from KPMG's European knowledge management survey 2002/2003*. Amstelveen, the Netherlands: KPMG.
- Library Association (1999). The Library Association's response to the white paper. Retrieved December 27, 2006 from http://www.la-hq.org.uk/directory/prof_issues/ocf.html
- Machlup, F. (1962). *The production and distribution of knowledge in the United States*. Princeton, NJ: Princeton University Press.
- Marchand, D. A. (1985). Information management: Strategies and tools in transition. *Information Management Review*, 1(1), 27-37.
- Neef, D. (1999). Making the case for knowledge management: The bigger picture. *Management Decision*, 37(1), 72-78.
- OECD. (2000). *Knowledge management in the learning society: Education and skills*. Paris, France: OECD Publications Service.

OECD. (2001). *Economics & management of knowledge: Next steps* (case study). Paris, France: OECD Publications Service.

OECD. (2003a). *Knowledge management: Measuring knowledge management in the business sector: First steps*. Paris, France: OECD Publications Service.

OECD. (2003b). *Knowledge management: New challenges for educational research*. Paris, France: OECD Publications Service.

OECD. (2004a). *The economic impact of ICT: Measurement, evidence and implications*. Paris, France: OECD Publications Service.

OECD. (2004b). *Knowledge management: Innovation in the knowledge economy*. Paris, France: OECD Publications Service.

Ponzi, L. (2004). Knowledge management: Birth of a discipline. In M. E. D. Koenig & T. K. Srikantaiah (Eds.), *Knowledge management lessons learned: What works and what doesn't* (pp. 9-26). Medford, NJ: Information Today Inc.

Stankosky, M. A. (2005). Advances in knowledge management: University research toward an academic discipline. In M. Stankosky (Ed.), *Creating the discipline of knowledge management: The latest in university research* (pp. 1-14). Burlington, MA: Elsevier Butterworth-Heinemann.

Stehr, N. (2002). *Knowledge and economic conduct: The social foundations of the modern economy*. Toronto, ON: University of Toronto Press.

Sutton, M. J. D. (2002). *A topical review of knowledge management curriculum programs in university graduate schools: Library and information science, business, cognitive science, information systems and computer systems schools*. Paper presented at the Knowledge Summit Doctoral Consortium, Queen's University,

Kingston, ON. Retrieved February 1, 2007, from <http://business.queensu.ca/centres/monieson/docs/2002%20Doctoral%20Consortium%20Participants.doc>

Sutton, M.J.D. (2007) *Examination of the historical sensemaking processes representing the development of knowledge management curricula in universities: Case studies associated with an emergent discipline*, Unpublished Ph.D. dissertation, McGill University, Montréal, Québec, Canada.

TFPL. (1999). *Skills for knowledge management - Building a knowledge economy* (White Paper). London, UK: TFPL Ltd.

UK Department of Trade and Industry (DTI). (1998). *Our competitive future: Building the knowledge driven economy*. London, UK: UK Department of Trade and Industry.

ur Rehman, S., & Chaudhry, A. S. (2004). Development of KM competencies in LIS programs: An analysis. In B. Trezzini, P. Lambe & H. S. (Eds.), *People, Knowledge and Technology* (pp. 281-291). Toh Tuck Link, Singapore: World Scientific Publishing Co Pte Ltd.

US Department of the Navy. (2001a). *Civilian career path guide for management of technology, information and knowledge: Volume 1*. Washington, DC: US Department of the Navy.

US Department of the Navy. (2001b). *Civilian career path guide: Career areas for management of technology, information and knowledge - Volume 2*. Washington, DC: US Department of the Navy.

Author's Bio

Michael is nearing the completion of his doctorate at McGill University. His dissertation is entitled: Examination of the

Historical Sensemaking Processes
Representing the Development of
Knowledge Management Curricula in
Universities: Case Studies Associated with
an Emergent Discipline. While finishing his
doctorate he is engaged as an Assistant
Professor coordinating the Knowledge
Management concentration within an
interdisciplinary program called Information
Architecture and Knowledge Management
(IAKM) at Kent State University. A copy of
his dissertation will be forwarded upon
request to any interested party when it is
completed and defended in 2007. Additional
information is available at his website
(<http://iakm.kent.edu/facultyandstaff/sutton.html>).