

Knowledge Management in Health

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Knowledge Management in Health

Bali RK and Dwivedi AN (2007) **Healthcare Knowledge Management: Issues, Advances and Successes**. Springer <http://www.springer.com/west/home/public+health?SGWID=4-40467-22-153034770-0> (accessed 14/11/2006)

Healthcare practitioners and managers increasingly find themselves in clinical situations where they have to think fast and process myriad diagnostic test results, medications and past treatment responses in order to make decisions. Effective problem solving in the clinical environment or classroom simulated lab depends on a healthcare professional's immediate access to fresh information. Unable to consult a library for information, the healthcare practitioner must learn to effectively manage knowledge while thinking on their toes.

Knowledge Management (KM) holds the key to this dilemma in the healthcare environment. KM places value on the tacit knowledge that individuals hold within an institution and often makes use of IT to free up the collective wisdom of individuals within an organization.

Healthcare Knowledge Management: Issues, Advances and Successes will explore the nature of KM within contemporary healthcare institutions and associated organizations. It will provide readers with an understanding of approaches to the critical nature and use of knowledge by investigating healthcare-based KM systems. Designed to demystify the KM process and demonstrate its applicability in healthcare, this text offers contemporary and clinically-relevant lessons for future organizational implementations.

The editors of this book have assembled a group of international contributors that reflects the diversity of KM applications in the healthcare sector. While many KM texts suffer from pitching theoretical issues at too technical a level, Healthcare Knowledge Management approaches the topic from the more versatile "twin" perspectives of both academia and commerce. This unique text is integrative in nature – a practical guide to managing and developing KM that is underpinned by theory and research.

World Health Organization (2006) **Bridging the “know-do” gap in global health**. WHO, Geneva <http://www.who.int/kms/en/> (accessed 14/11/2006)

Knowledge management is a set of principles, tools and practices that enable people to create knowledge, and to share, translate and apply what they know to create value and improve effectiveness.

Many of the solutions to health problems of the poor exist, but are not applied. This is called the "know-do" gap -- the gap between what is known and what is done in practice.

The Global WHO Knowledge Management team aims to bridge the know-do gap in global health by fostering an environment that encourages the creation, sharing, and effective application of knowledge to improve health.

Koumpouros Y, Luigi Nicolosi G and Martinez-Selles M (2006) **Critical success factors for establishing a multidisciplinary health community knowledge management system using internet-based ICTs : the cardiology paradigm.** *International Journal of Healthcare Technology and Management* 7(3-4):283-302

The current paper concerns the development of an internet-based Health Community Knowledge Management System in the field of Cardiology. The research conducted covers a wide range of state-of-the-art technologies (ontologies, knowledge management techniques, etc.). The objectives of the final system are: to create an ontology for the modelling of the knowledge base around cardiology, while facilitating every day working needs of the various intended end users. Pharmaceutical companies, healthcare professionals, and biomedical companies are all interested and are participating in the formation of the virtual community for disseminating valuable knowledge in cardiology. The technological challenges of applying such an internet-based system, as well as the sociocultural and political factors affecting the application of similar internet-based ICTs and the integration with existing processes and systems in healthcare are examined. The research was conducted in three countries/pilot sites (Greece, Spain and Italy) and two experiences for testing purposes are being considered. The work concludes that some of the major success factors are: knowledge critical mass political commitment and endorsement well-structured ontology multilinguality of the content and the system timeless processes multipartnership participation patient- and problem-oriented knowledge management system.

Friedman LH, Bernell SL (2006) **The Importance of Team Level Tacit Knowledge and Related Characteristics of High-Performing Health Care Teams.** *Health Care Management Review* 31(3):223

Team level tacit knowledge is related to the collective knowledge of the team members. It is the shared experience that results in the ability to successfully anticipate the reactions of teammates in typical and nontypical situations. This study evaluates how tacit knowledge and related team characteristics influence the performance of cardiothoracic surgery teams.

Chang C-L, Cheng B-W, Luo C-M (2006) **Knowledge-based Quality Management and Clinical Pathways.** *Quality Management in Health Care* 15(1):46

Although 65% of the hospitals in Taiwan claim to be applying the clinical pathway concept, most hospitals do not implement this concept effectively. The purpose of this study is to determine the reasons for the improper or inappropriate application of the clinical pathway design in hospitals. The study differs from other studies in clinical pathway design and application in that it seeks to resolve misunderstandings of the clinical pathway analysis that may have been generated by the responses to survey questionnaires. Therefore, in-depth interviews and Senge's system archetype are used to ascertain the reasons why the use of a clinical pathway design has been ineffective. The four dimensions of knowledge-based management proposed by Drucker are also used to set up the knowledge-based clinical pathway. Thirteen experts use the Delphi method to construct 20 knowledge-based clinical pathway guidelines. The paper recommends that the application of knowledge- and management-based clinical pathway designs be pursued.

Current Aspects of Knowledge Management in Medicine (KMM05). In *WM2005: Professional Knowledge Management - Experiences and Visions.* <http://wm2005.iese.fraunhofer.de/workshop7-en.html> (accessed 14/11/06)

Traditional Knowledge Management systems in the medical field predominantly focus on medical knowledge and problem solving like diagnosis, prognosis, therapy planning and critiquing, image processing with image classification, and teaching or practising medical knowledge. Today, also economical, organizational, and quality aspects move into the centre of medical Knowledge Management, such as efficiency, analysis, and optimisation of hospital processes, workflow management and the simplification of collaborative treatments by physicians of remote health care facilities. Background of this development is the tremendous technical and scientific progress in health care over the past years that dramatically increased the costs for health care but improved its quality for the population only inessential. Using the changing accounting system based on flat rates (Diagnosis Related Groups, DRGs), health care organizations have to change their operating philosophies to become profitable, enterprise-like organizations.

- Presentation slides available at: <http://www.wi2.uni-trier.de/conferences/kmm05/>

- Proceedings available at: <http://sunsite.informatik.rwth-aachen.de/Publications/CEUR-WS//Vol-131/>

OpenClinical Home: Knowledge management technologies and applications for healthcare.
<http://www.openclinical.org/home.html> (accessed 14/11/2006)

OpenClinical provides an increasingly comprehensive set of resources on advanced knowledge management methods, technologies and applications for healthcare. The core content of the site is arranged under five main zones to reflect the interests of our target constituencies:

- Background (for all constituencies): the technical, clinical and political contexts to the field of clinical knowledge management technologies and applications.
- Research: current developments and issues.
- Clinical knowledge management applications, demonstrations and videos illustrating their use in clinical contexts; extensive archive of Artificial Intelligence systems used in clinical practice.
- Commercial suppliers of clinical knowledge management applications and technologies.
- Public e-Health applications on the WWW for the public.

Pan-Canadian Health Informatics Collaboratory <http://commons.bcit.ca/hic/index.htm> (accessed 14/11/2006)

This is a collaborative component-building research project to construct an experimental broadband interactive learning support environment to enhance health informatics (HI) education in Canada. The five components being constructed are

- interoperability standards for HI content
- interactive technologies for virtual presence
- e-learning methodologies
- HI knowledge management, and
- pilot HI course modules.

Our consortium is made up of a multidisciplinary project team and stakeholders groups spanning educational institutions, health organizations, professional associations and private sector companies across Canada. Our deliverable is an experimental standards-based virtual learning environment for adaptation by participating stakeholder groups into their existing and/or new HI education and training programs.

NHS Knowledge Management Specialist Library <http://www.library.nhs.uk/knowledgemanagement/> (accessed 14/11/2006)

The aim of this site is to provide the best available evidence and practical examples of health professionals successfully sharing and applying knowledge and experience to their daily activities. Research in this area is still in the early stages and for that reason, much of the current content has been selected from the business sector. However, the material available on the Knowledge Management Specialist Library has been chosen because the content can also be applied to the health sector.

(Also includes guest editorials and issues of "Knowledge Flow" (the newsletter of the Knowledge Management Specialist Library))

Information & Knowledge for Optimal Health (INFO) Project (nd) **Introduction to Communities of Practice as a Knowledge Management Tool.** INFO Project, Baltimore, MD
http://www.infoforhealth.org/km/cops_notes.pdf (accessed 14/11/2006)

Communities of Practice (CoPs) are networks of people who work on similar processes or in similar fields and who come together, virtually or in-person, to develop and share their knowledge for the benefit of both the individual and the organization. For organizations just starting out with KM, CoPs are among the most popular and easily adopted of the core KM practices. This INFO presentation gives an overview of what communities of practice are, how they work, their goals, the advantages of starting them, and typical CoP features. It also briefly reviews how to start a community of practice.

Association of State and Territorial Health Officials (2005) **Knowledge Management for Public Health Professionals**. ASTHO, Washington DC <http://www.astho.org/pubs/ASTHO-Knowledge-Management.pdf> (accessed 14/11/2006)

“Knowledge Management” is an approach for addressing the information overload that has evolved over the last few years. ASTHO in partnership with the Centers for Disease Control and Prevention (CDC) has sought the input and expertise of numerous local and state officials in developing this document. This knowledge management primer is meant to provide health officials and other public health practitioners a high level introduction into the concepts involved in knowledge management, and to share some ideas about how experts and practitioners have attempted to organize their information.

This document is organized into three major sections. The first explores knowledge management concepts, tracking the evolution of data to knowledge and identifying key components of knowledge management. The second section relates the concepts of knowledge management to public health activities and goals. This section is built on the input from many public health professionals who participated in discussion sessions, reviewed drafts of the document, and provided examples of public health situations pertinent to knowledge management. The final section describes key activities that contribute to implementing a knowledge management approach in an organization or community.

Cheng G (2005) **Knowledge Management and Evidence-based Practice – Implications for Health Services Management**. *ACHSE Health Manager*, Spring

In the new information eco-system, there is too much data and information. Value is added in the data-information-knowledge chain by filtering, critically appraising the information and applying to practice. The author draws an analogy from the literature on knowledge management and evidence-based practice and highlights the importance of adding value to the process of the transformation of data to information, and from information to knowledge for evidence-based practice, not only from the individual practitioner’s point of view, but also from the organizational perspective.

(Full text available at: <http://www.achse.org.au/publications/aushealth/spring05.pdf>)

Guptill J (2005) **Knowledge Management in Health Care**. *Journal of Health Care Finance*, 31(3):10

It is a long-term, sustainable commitment to changing the culture of health care to become more collaborative, more transparent, and more proactive. Knowledge management, implemented well, will transform the health care delivery system over the next few decades, into a more cost-effective, erroraverse, and accountable public resource. For the sake of simplicity, this article will limit the application of knowledge management principles to the context of hospitals, hospital systems or associations, or other groupings of hospitals based on a common interest or focus. The field of knowledge management has tremendous application and value to the health care industry, particularly for hospitals and hospital systems. For many who have invested in a knowledge management infrastructure, it has become the measure of value of belonging to a hospital system or membership organization.

D'Alessandro MP, D'Alessandro DM, Bakalar RS, Ashley DE, Hendrix MJC (2005) **The Virtual Naval Hospital: the digital library as knowledge management tool for nomadic patrons**. *Journal of the Medical Library Association* 93(1):16

D'Alessandro et al meet the information needs of isolated primary care providers and their patients in the US Navy, a digital health sciences library, the Virtual Naval Hospital, was created through a unique partnership between academia and government. The digital Library is dedicated to delivering the right information at the right time to the right person so the right decision can be made, and therefore the Virtual Naval Hospital functions as a knowledge-management system for the US Navy Bureau of Medicine and Surgery.

Gabbay J, le May A (2004) **Evidence based guidelines or collectively constructed "mindlines?" Ethnographic study of knowledge management in primary care**. *British Medical Journal* 329(7473):1013

Objective To explore in depth how primary care clinicians (general practitioners and practice nurses) derive their individual and collective healthcare decisions. Design Ethnographic study using standard methods (non-participant observation, semistructured interviews, and documentary review) over two years to collect data, which were analysed thematically. Setting Two general practices, one in the south of England and the other in the north of

England. Participants Nine doctors, three nurses, one phlebotomist, and associated medical staff in one practice provided the initial data; the emerging model was checked for transferability with general practitioners in the second practice. Results Clinicians rarely accessed and used explicit evidence from research or other sources directly, but relied on "mindlines"--collectively reinforced, internalised, tacit guidelines. These were informed by brief reading but mainly by their own and their colleagues' experience, their interactions with each other and with opinion leaders, patients, and pharmaceutical representatives, and other sources of largely tacit knowledge. Mediated by organisational demands and constraints, mindlines were iteratively negotiated with a variety of key actors, often through a range of informal interactions in fluid "communities of practice," resulting in socially constructed "knowledge in practice." Conclusions These findings highlight the potential advantage of exploiting existing formal and informal networking as a key to conveying evidence to clinicians.

Melick CF, Buchbinder D, Coll DP, Moore S (2004) **The Effects of Knowledge Management on Surgeon Behavior.** *Journal of Health Care Finance* 31(1):31

Knowledge management is an important process for health care researchers and administrators. The way we manage and transfer knowledge in an organization can have a substantial impact on behavior and performance. In this article, we examine the behavioral effects of transferring performance-efficiency knowledge to a group of hospital-based surgeons. We observe the way the knowledge transfer impacts their sense of professional accountability and practice patterns for a limited set of diagnoses. We defined performance efficiency for a surgeon as the deviation from expected average length of inpatient hospital stay, and from expected average hospital charges (adjusted for risk and outcomes) for three of the most frequently performed and most costly surgical procedures in our subject hospital. We communicated knowledge of their performance efficiency to the group of hospital-based surgeons, along with benchmarked professional best practices, and included an identification of dimensions where performance could be improved. We then measured and compared their performance efficiency one year later. We did observe differences in performance efficiency, but not in consistent directions, and not in statistically significant magnitudes. Also, surgeons who initially had low levels of efficiency continued to have low levels of efficiency one year later. Within a professional accountability system, transfer of performance-efficiency knowledge alone did not provide sufficient motivation to induce consistent, significant change in practice behaviors among the group of surgeons. We conclude that medical opinion leaders and individualized strategies for surgeon motivation may have greater promise for improving performance efficiency if linked to the knowledge transfer system.

Van Beveren J (2003) **Does health care for knowledge management?** *Journal of Knowledge Management* 7(1):90-95

This study explores knowledge management within an Australian regional health care organization. Many barriers inherent in the organizational structure and design of the organization that are indicative of the public health sector have been identified and discussed. From the results and discussion it is concluded that new models, tools and techniques for knowledge management specific to the environment of the public sector and particularly the health sector are required.

Bouthillier F and Shearer K (2002) **Understanding knowledge management and information management: the need for an empirical perspective.** *Information Research*, 8(1)
<http://informationr.net/ir/8-1/paper141.html>

Is Knowledge Management (KM) an emerging discipline or just a new label for Information Management (IM)? To provide some answers to this question, the article summarizes empirical evidence of how KM is practiced in several types of organizations demonstrating the variety of organizational approaches that are used and the processes that are involved. Based on an exploratory study of KM practices, the article presents a typology of methodologies that are employed in various organizations to illustrate what may be considered as the particular nature of KM to show potential differences with IM. The first section of the article discusses the concepts associated with the management of information and knowledge. The second part provides a description of the conceptual framework used for the study and a presentation and discussion of the results.

Reuthe E, Allee V (1999) **Knowledge management: Moving the care model from a "snapshot" to a "story"**. *Health Forum Journal* 42(3):26

York Hospital in York, Maine, demonstrates many of the elements of the new knowledge-era model. This 79-bed community hospital in Maine began an adventure of intervention in 1995 when it launched its Patient Approach to Health (PATH). The entire hospital service area - housekeepers, food service providers and nurses - was assigned PATH teams. A PATH team would follow the patient throughout the entire PATH of care. A pilot group was formed to develop the concept and to decide on how best to answer the question of getting the most resources closest to the patient at the lowest cost. York had to reconfigure its structure capital to design and implement new structures and processes to support this new business model. Most important, it has not only enhanced relationships with patients and payers but extended its relationship capital deep into the community.

Elliott S, O'Dell C (1999) **Sharing knowledge & best practices: The hows and whys of tapping your organization's hidden reservoirs of knowledge**. *Health Forum Journal* 42(3):34

Health care's leading organizations are learning how to tap into best practices and knowledge management to capitalize on what the collective organization knows. Culture, technology, infrastructure and measurement are the 4 key enablers for knowledge management. Each is essential and is insufficient without the others. They all work together to yield sustainable success.

Knowledge Management – General

NSW KM Forum <http://www.nsw-km-forum.org.au/wiki.pl> (accessed 16/11/2006)

The aim of the NSW KM Forum is

To improve the understanding and practical application of Knowledge Management by sharing our collective skills and experience and encouraging collaboration

Knowledge Management – Step Two Designs <http://www.steptwo.com.au/km/km/index.html> (accessed 16/11/2006)

Knowledge management is an umbrella term under which many different disciplines can be grouped, all relating to the effective use of knowledge to meet business needs.

It is increasingly being recognised that best-practice knowledge management is required to support both innovation and sustainability within organisations.

James Robertson, the managing director of Step Two Designs is a committee member of the NSW KM Forum, demonstrating the experience and expertise we can apply to your organisation.

The Library - Knowledge Management - Sveiby Knowledge Management

<http://www.sveiby.com/TheLibrary/KnowledgeManagement/tabid/78/Default.aspx> (accessed 16/11/2006)

Articles on Knowledge Management & Intellectual Capital and The Concepts of Knowledge and Information

The Knowledge Management Advantage <http://www.providersedge.com/kma/index.html> (accessed 16/11/2006)

This web site is a dynamic and comprehensive Knowledge Management information resource for organizations striving to achieve competitive advantage and world-class recognition. The site was built and continues to evolve in the true spirit of Knowledge Management: to share with others and help them succeed.

Buckman Laboratories Knowledge Nurture <http://www.knowledge-nurture.com/> (accessed 16/11/2006)

Welcome to the Buckman Laboratories website for Knowledge Management. Our goal is to establish a resource to help people learn about knowledge management. Our audience is not only our customers and our associates within Buckman Laboratories, but also the worldwide knowledge management community - practitioners, newcomers, academics, students, and thinkers.

KnowledgeBoard <http://www.knowledgeboard.com/> (accessed 16/11/2006)

We are a self-moderating global community thinking and collaborating on subjects around (but not limited to) Knowledge Management and Innovation in the worlds of business and academia.

KM.gov

http://www.km.gov/quickplace/kmwg2/main.nsf/h_Toc/95997d7076fb974a852571540064cbc3/?OpenDocument (accessed 16/11/2006)

The Federal Chief Information Officers Council (the CIO Council) establishes the Knowledge Management Working Group ... as an interagency body to bring the benefits of the government's intellectual assets to all Federal organizations, customers, and partners...

Communities of Practice

Communities of Practice <http://www.co-i-l.com/coil/knowledge-garden/cop/> (accessed 14/11/06)

Welcome to the Web's first site dedicated to communities of practice, since 1995!

If this is your first visit and just want to get a sense of what communities of practice are about, enjoy browsing our Resources. If you're a community leader, facilitator or executive who supports communities of practice, we recommend the announcement below.\

Wenger E (nd) **Communities of practice - a brief introduction.**

<http://www.ewenger.com/theory/index.htm> (accessed 14/11/2006)

The term "community of practice" is of relatively recent coinage, even though the phenomenon it refers to is age-old. The concept has turned out to provide a useful perspective on knowing and learning. A growing number of people and organizations in various sectors are now focusing on communities of practice as a key to improving their performance.

This brief and general introduction examines what communities of practice are and why researchers and practitioners in so many different contexts find them useful as an approach to knowing and learning.

- Cultivating communities of practice - a quick start-up guide.
http://www.ewenger.com/theory/start-up_guide_PDF.pdf

Le Moutl D (2002) **How to make a CoP fly? – Knowledge Board** Sift Group Ltd, Bristol, UK

<http://www.knowledgeboard.com/cgi-bin/item.cgi?id=378> (accessed 14/11/2006)

I'd like to share with you some ideas we have developed within Siemens ICN in order to "make a CoP fly".

First, we have identified 10 actions items to create a successful Community of Practice. There are 10 fundamental questions you need to ask before starting a CoP...

Lesser EL and Storck J (2001) **Communities of practice and organizational performance.** *IBM Systems Journal* 40(4)

As organizations grow in size, geographical scope, and complexity, it is increasingly apparent that sponsorship and support of communities of practice—groups whose members regularly engage in sharing and learning, based on common interests—can improve organizational performance. Although many authors assert that communities of practice create organizational value, there has been relatively little systematic study of the linkage between community outcomes and the underlying social mechanisms that are at work. To build an understanding of how communities of practice create organizational value, we suggest thinking of a community as an engine for the development of social capital. We argue that the social capital resident in communities of practice leads to behavioral changes, which in turn positively influence business performance. We identify four specific performance outcomes associated with the communities of practice we studied and link these outcomes to the basic dimensions of social capital. These dimensions include connections among practitioners who may or may not be co-located, relationships that build a sense of trust and mutual obligation, and a common language and context that can be shared by community members. Our conclusions are based on a study of seven organizations where communities of practice are acknowledged to be creating value.

(Full text available at: <http://www.research.ibm.com/journal/sj/404/lesser.html>)

Knowledge Sharing

Knowledge Connections <http://www.skyrme.com/index.htm> (accessed 14/11/2006)

This Knowledge Connections site aims to connect you to the best knowledge about Knowledge Management and the related themes of Virtual Working, Internet / intranet and Innovation.

Riege A (2005) **Three-dozen knowledge-sharing barriers managers must consider**. *Journal of Knowledge Management* 9(3):18-35

Purpose - Knowledge sharing is the corner-stone of many organisations' knowledge-management (KM) strategy. Despite the growing significance of knowledge sharing's practices for organisations' competitiveness and market performance, several barriers make it difficult for KM to achieve the goals and deliver a positive return on investment. This paper provides a detailed review of current KM and related literatures on a large number of possible knowledge-sharing barriers with the purpose of offering a more comprehensive and structured starting-point for senior managers when auditing their organisation's current knowledge base and knowledge-sharing requirements. **Design/methodology/approach** - This article reviews and discusses over three dozen potential knowledge-sharing barriers, categorising them into three main domains of recently published works: individual/personal, organisational, and technological barriers. **Findings** - The extensive list of knowledge sharing barriers provides a helpful starting point and guideline for senior managers auditing their existing practices with a view to identifying any bottle-necks and improving on the overall effectiveness of knowledge-sharing activities. **Practical implications** - Managers need to realise, however, that a particular knowledge sharing strategy or specific managerial actions will not suit all companies and that there are differences to be expected between MNCs and SMEs, private, public sector, and not-for-profit organisations. As such, the implementation of knowledge-sharing goals and strategies into an organisation's strategic planning and thinking will vary greatly. **Originality/value** - The main discussion of this paper brings together a large range of knowledge-sharing barriers in an attempt to indicate the complexity of knowledge sharing as a value-creating organisational activity.

Norris DM, Mason J, Robson R, Lefrere P, Collier G (2003) **A revolution in knowledge sharing**. *EDUCAUSE Review* Sep/Oct:14

The pressure to transform our institutions of learning continues. Virtually every enterprise and institution is grappling with the disruptions and opportunities caused by Web-enabled infrastructures and practices. New best practices, business models, innovations, and strategies are emerging, including new ways to acquire, assimilate, and share knowledge. Using technologies that are already developed or that will be deployed over the next five years, best practices in knowledge sharing not only are diffusing rapidly but will be substantially reinvented in all settings: educational institutions, corporations, government organizations, associations, and nonprofits. But institutions of learning are in a unique position to benefit from an added opportunity: providing leadership in e-knowledge.

(Full text available at: <http://www.educause.edu/ir/library/pdf/ERM0350.pdf>)

Ardichvili A, Page V and Wentling T (2003) **Motivation and barriers to participation in virtual knowledge-sharing communities of practice**. *Journal of Knowledge Management* 7(1):64-77

This paper reports the results of a qualitative study of motivation and barriers to employee participation in virtual knowledge-sharing communities of practice at Caterpillar Inc., a Fortune 100, multinational corporation. The study indicates that, when employees view knowledge as a public good belonging to the whole organization, knowledge flows easily. However, even when individuals give the highest priority to the interests of the organization and of their community, they tend to shy away from contributing knowledge for a variety of reasons. Specifically, employees hesitate to contribute out of fear of criticism, or of misleading the community members (not being sure that their contributions are important, or completely accurate, or relevant to a specific discussion). To remove the identified barriers, there is a need for developing various types of trust, ranging from the knowledge-based to the institution-based trust. Future research directions and implications for KM practitioners are formulated.

(Full text available at:

http://www.alba.edu.gr/OKLC2002/Proceedings/pdf_files/ID78.pdf)

Brazelton J and Gorry GA (2003) **Creating a knowledge-sharing community: If you build it, will they come?** *Communications of the ACM* 46(2):23-25

Technology may support a knowledge-sharing environment, but getting users to participate in effective ways is key.

Pan SL and Leidner DE (2003) **Bridging communities of practice with information technology in pursuit of global knowledge sharing.** *Journal of Strategic Information Systems* 12:71-88

This paper explores the use of information technology to support knowledge sharing within and between communities of practice. In so doing, it presents a case of a multi-national organization's efforts to implement an organizational knowledge management (KM) system. The case traces both the technological solutions and the KM strategy of the organization as it met with various challenges along a several year period of establishing KM as organizational practice. The study highlights several lessons, including the possibility of a flexible KM strategy, the necessity for multiple channels of knowledge sharing, the desirability of expanding communities of practice, and the evolution of the role played by information technology as KM strategies evolve.

Bobrow DG and Whalen J (2002) **Community knowledge sharing in practice: The Eureka story.** *Reflections* 4(2):47-59

This paper presents a detailed account of a knowledge-sharing system in practice. The Eureka system leverages the practical know-how and inventions of frontline employees, with the goal of helping the entire organization learn from their experience. This system and its enabling technology were developed through several iterations using a distinctive socio-technical methodology. We provide a précis of the methodology, and summarize the experiences during seven years with the design, development, deployment and evaluation of the Eureka system to support the service organization of Xerox Corporation.

(Full text available at:

<http://www.parc.xerox.com/research/projects/commknowledge/EurekaReflections.pdf>)

Cabrera A and Cabrera EF (2002) **Knowledge-sharing dilemmas.** *Organization Studies* 23(5):687-710

The exchange of information among organizational employees is a vital component of the knowledge-management process. Modern information and telecommunication technology is available to support such exchanges across time and distance barriers. However, organizations investing in this type of technology often face difficulties in encouraging their employees to use the system to share their ideas. This paper elaborates on previous research, suggesting that sharing personal insights with one's co-workers may carry a cost for some individuals which may yield, at the aggregate level, a co-operation dilemma, similar to a public-good dilemma. A review of the research on different types of public-good dilemmas provides some indications of the specific interventions that may help organizations encourage the kind of social dynamics that will increase overall knowledge sharing. These interventions can be classified into three categories: interventions aimed at restructuring the pay-offs for contributing, those that try to increase efficacy perceptions, and those that make employees' sense of group identity and personal responsibility more salient.

(Full text available at: http://findarticles.com/p/articles/mi_m4339/is_5_23/ai_97822728)