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# Using Probabilistic Feature Models to Determine Success Criteria for ICT Projects

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# BOLSTERING KNOWLEDGE MANAGEMENT SYSTEMS WITH APPRECIATIVE INQUIRY

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## Abstract

*Both Knowledge Management and Appreciative Inquiry attempt to amplify human and organizational capacities by leveraging the best of each. Whereas knowledge management systems aim to help identifying the substantive organizational knowledge in its broadest sense and leveraging it to benefit the organization and its stakeholders, the appreciative inquiry methodology is also about the search for the best in people, their organizations, and the relevant world around them. In their root cause, both knowledge management and appreciative inquiry "involve systematic discovery of what gives life to a living system when it is most alive, most effective, and most constructively capable in economic, ecological, and human terms." Following a brief introduction of knowledge management systems and appreciative inquiry, this essay examines the corollary relationship between the two, and subsequently points to critical areas in which knowledge management practices can benefit from adopting the appreciative inquiry perspective. More particularly, we submit that appreciative inquiry can motivate organization-wide adoption of knowledge management systems and it can provide language-based mechanisms to facilitate effective knowledge exchange. The development of an appreciative-inquiry-based mode of knowledge management opens new horizons and uncovers previously overlooked possibilities, which eventually can contribute to the overall organizational performance and well-being.*

*Keywords: Social Facets of Knowledge Management, Knowledge Management Strategy, Knowledge Management Development, Appreciative Inquiry.*

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<sup>1</sup> Please contact the author for further information and the most current references to this line of research.

## 1 INTRODUCTION

Finding, keeping and leveraging an organization's information assets are critical to productivity, efficiency of operation and successful competition. These are the underpinnings of the mainstream knowledge management theories, which focus on the technical and social aspects of knowledge creation, transmission, storage and retrieval. Whereas many have emphasized the information architectures, infrastructures and procedures that allow stakeholders in organizations to search multiple repositories of information (e.g., Markus 2001), this essay emphasizes the social and organizational dynamics that drive the organizational actors who create and use these knowledge systems.

The principles of appreciative inquiry provide a universal framework that can enhance and drive a multitude of facets of organizational life. As many practitioners of appreciative inquiry attest, appreciative inquiry is particularly effective if applied in organizational activities that build on grassroots knowledge, goodwill and action. One such organizational activity is the deployment of knowledge management systems, which cannot be sustained without an organization-wide adoption and knowledge sharing among multiple stakeholders. This essay examines the potential contribution of appreciative inquiry to the design and application of knowledge management systems.

Although knowledge management systems were introduced more than two decades ago, we still experience many unsolved challenges concerning their implementation. For example, frequent resistance to sharing information (Ciborra & Patriotta 1998), difficulties in identifying qualified core knowledge, actors' indifference towards organizational knowledge repositories (Dixon 2000), and continuous struggle of the systems' sponsors to sustain a viable knowledge community (Rumizen 2002). Our thesis is that appreciative inquiry principles can help designers and users of knowledge management systems meet the above challenges. Thus, we submit that appreciative inquiry can (1) motivate organizational members to share and use information assets; (2) systematically identify and maintain a catalog of core knowledge; (3) synthesize situated vocabularies and taxonomies of knowledge grounded in the organizational context; and (4) facilitate sustainable communities of knowing.

Following a brief introduction of the knowledge management systems domain and the appreciative inquiry principles, this essay examines the corollary relationship between knowledge management and appreciative inquiry, and subsequently points to critical areas in which knowledge management practices can benefit from adopting the appreciative inquiry perspective.

## 2 KNOWLEDGE MANAGEMENT

*Knowledge management* refers to the array of processes that deal with the creation, dissemination, and utilization of knowledge. Knowledge management, per se, is technology-independent. However, information technologies play an important role in an organization's knowledge management strategy, which, in turn, tends to rely on various knowledge management systems. A *knowledge management system* is a computer-based information system that is designed to facilitate effective and efficient integration and sharing of knowledge. The design and operationalization of these systems flow mainly from the complexity of the underlying knowledge and the designers' a-priori ontological assumptions concerning the nature of knowledge.

Corresponding to Wasko and Faraj's (2000) framework of organizational knowledge, the current landscape of knowledge management systems can be mapped onto three de facto archetypes that are labeled here as follows: codified knowledge repositories, expert directories, and communities of practice. The three-archetype typology is derived partly from the various degrees of complexity of the underlying knowledge. As illustrated in Figure 1, knowledge complexity is characterized in this case as a two-dimensional space comprising of *knowledge depth* (extent of specialization within a field of

expertise) and *knowledge breadth* (extent of diversity across fields of expertise). Codified repositories are effective in managing low-complexity knowledge that is relatively structured and explicit. Expert directories are effective for transferring moderately complex knowledge that is difficult to codify but can be mastered by individuals. Communities of practice are best suited for handling complex knowledge that requires a continuous group effort.

*Codified Knowledge Repositories* focus on relatively concrete and well-defined knowledge elements in a particular context that can be structured using an existing commonly acceptable classification scheme. An example of such a repository is the American Psychiatric Association's Diagnostic and Statistical Manual of Mental Disorders (DSM). The underlying assumption in this case is that knowledge about mental disorder is intrinsically objective and independent of any particular mental patient or the psychiatrist who made the diagnosis. It is believed that the knowledge exists outside a person's head and can be consumed by human beings and organizations that act as information processing systems (Galbraith 1977). Consequently, the designers of such knowledge management systems aim to capture critical knowledge existing in people's minds and transform it into knowledge assets owned by the organization. Such knowledge repositories contain documents, routines specifications, historical data, inventories, and the like. Information technologies that support codified knowledge repositories include databases, data mining applications, file management systems, workflow systems and decision support systems.

*Expert Directories* are concerned with keeping track of the various experts in a particular context. Expert directories list either specialists in a particular field of endeavor, such as brain surgeons, or generalists who can bridge across different bodies of knowledge, such as family physicians. By linking the right expert to the issue at hand, expert directories are geared to provide unstructured knowledge in the form of either specialized or cross-disciplinary knowledge. Expert directories are based on the underlying assumption that knowledge is embedded in people—it is personal and tacit. Knowledge and the person who created it are inseparable. Therefore, the designers of such knowledge management systems should aim to track and map the myriad expertise in the organization.

Another underlying assumption concerning expert directories is that organizational knowledge is the sum of all the knowledge of the individuals in the organization. Given that people gain tacit knowledge through personal involvement with the outside world and their interactions with others, expert directories allow people to connect to one another, thereby enhancing the organization's "transactive memory" (Moreland 1999). In addition to information dissemination and continuous update, the designers of expert directories must create a climate in which the various experts are motivated to share knowledge and help each other. Information technologies that support expert directories include Intranet applications, online knowledge directories, search engines, and electronic bulletin boards.

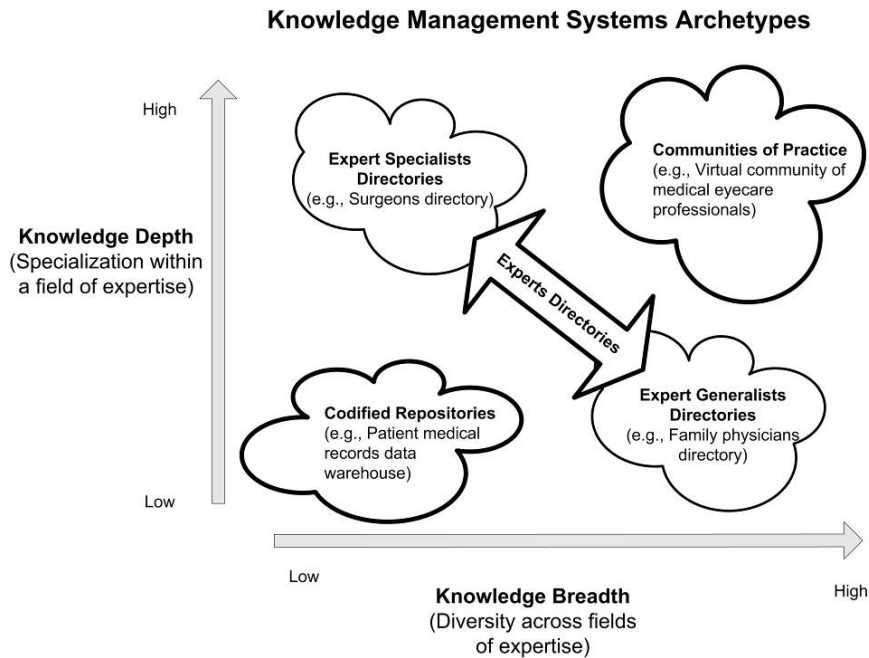


Figure 1. The knowledge management domain

*Communities of Practice* are social networks that facilitate an ongoing knowledge sharing, discussion, mutual support and other social exchanges among affiliates who share an affinity to a particular profession or area of interest (Wenger 1998). A community of practice can be seen as a distributed knowledge system, in which knowledge transcends any one individual and is embedded in the shared knowledge base and social practices of that community (Boland, Tenkasi & Te'eni 1994). The underlying assumption is that knowledge and knowing are situated, self-referential, and intrinsically entwined. Knowledgeable community members recreate, transform, legitimize, reinforce and disseminate the knowledge through their practice. Concurrently, the embedded knowledge also shapes, frames and anchors the practices carried out by these actors, thereby placing knowledge in relation to a collective act of agents who apply and appropriate it. Knowledge shared in a community of practice is considered a public good. Sharing and participation often stem from a sense of commitment and a need to be affiliated with the community and be recognized by its members.

Given its distributed nature, a community of practice is involved with unstructured, multidisciplinary knowledge that is both highly specialized and spanned across diverse fields. For example, *EyeTownCenter*, an online virtual medical community for ophthalmologists, allows eyecare physicians to network effectively with each other, very much the way they are able to do at clinical conferences. By visiting and interacting within the virtual community spaces, the physician members are able to share ideas and develop relationships with their peers, to access information applicable to their area of specialization, and to obtain assistance for various professional issues relating to their practice.

Often, communities of practice rely on groupware applications and other collaborative technologies, such as listservs, discussion boards, wikis, or electronic chatrooms to enhance human interaction and connectivity. System designers who prescribe and appropriate information technologies for communities of practice should aim to support creating a space conducive to continuous, multi-channel knowledge sharing. Furthermore, they need to account for the prevailing social norms, pay careful attention to the enrollment and initiation processes of new members, and provide archival facility and other means that help in cultivating a sense of historicity.

The unique features of each archetype of knowledge management system are juxtaposed in Table 1. Although each archetype is fundamentally different, the three are not mutually exclusive: knowledge management systems of various archetypes may co-exist in one organization and reinforce one another. For example, specialist physicians may get patients through listings in expert directories, use

extensively their hospital's proprietary codified knowledge repositories, and share some of this information as active participants in a national community of practice. Subsequently, based on feedback from peers elsewhere and their personal experience, they may make substantive contributions in their host organization, which, in turn, are codified in the local knowledge repositories.

Irrespective of their archetypical orientation, successful knowledge management systems must facilitate effective knowledge exchange, which is inherently dependent on a delicate balance between knowledge contributors and knowledge seekers. Maintaining and sustaining this balance is one of the major challenges of knowledge management initiatives. The voluntary nature of knowledge sharing, particularly if it involves an intersubjective or relational component, makes it dependent mainly on intrinsic motivations and social control, rather than on top-down managerial directives. The link between cultivating a culture of knowledge sharing and the successful implementation of knowledge management systems of all sorts has been previously documented and discussed extensively in the literature (e.g., Davenport, De Long, & Beers 1998).

Further examination of the success factors of knowledge management systems reveals two overarching top-level themes: (1) grassroots adoption by a critical mass of people that use the systems regularly for knowledge exchange, and (2) careful attention to language-based mechanisms that facilitate effective knowledge exchange. These two considerations underlie any successful knowledge management system **irrespective** of its archetypical characteristics. While grassroots adoption and linguistics considerations seem to be universal concerns in knowledge management systems, their manifestation and the challenges they present in each archetype are quite different.

Codified knowledge repositories rely on continuous contribution and maintenance of proprietary knowledge by various professionals and the translation of this knowledge into reusable knowledge objects. Organizations that deploy these knowledge management systems face challenges in motivating ongoing knowledge contribution as well as knowledge reuse. The value proposition of these systems is subject to their metastructures or classification schemes, which affect the successful codification of relatively unstructured, complex, contextualized, ephemeral, or dynamic knowledge.

Expert directories rely on detailed mapping of the myriad expertise, particularly the implicit capacities of a certain group of professionals or affiliates. Motivating experts' availability and balancing between experts' supply and demand are particular challenges in instances of non-market driven systems, in which no concrete remuneration is dispensed to contributors. Expert directories have the potential to provide a direct link to a leading-edge knowledge base, yet drawing and maintaining the map that facilitates matching between knowledge seekers and providers is still a challenge in highly contextualized, specialized, or cross-disciplinary cases.

Communities of practice help to avoid many of the challenges to a smooth exchange of knowledge that may be caused in information environments governed by the other two archetypes. However, communities of practice also face a challenge in nurturing the ecology of knowledge sharing and mutual help, in cultivating a stable core group that embraces new members, and in sustaining a community based on long-term relationships. Furthermore, in spite of the emphasis on the relational facet, it is critical to develop shared institutions, repertoires, routines, narratives, symbols, or genres that the community members, especially the new ones, can draw upon. Another challenge in electronically enabled communities of practice is the need to create a balance between both private spaces that allow rich self-reflection and public spaces that facilitate dialogue and relationship building.

Knowledge Management Systems Archetype			
Feature	Codified Repository	Experts Directory	Community of Practice
Nature of Knowledge	Independent, objective and explicit	Personal and tacit	Situated and socially constructed
Guiding Metaphor	Warehouse	Classified directory	Membership club
Provider-user Relationship	No direct relationships—knowledge is an isolated independent object transferred in asynchronous exchanges	Temporal dyadic, expert-client relationship narrowly focused on the concrete issue at hand	Continuous communal relationships based on solidarity, mutual support, a sense of historicity, and a shared vision
Knowledge Generation	Codify knowledge based on keywords and metastructures	List experts based on personal capabilities and reputation	Emerge through group interaction and dialogue
Knowledge Storage	Data repositories of saved knowledge objects	Expert's mind	Social fabric of the community membership or organizational memory
Knowledge Retrieval	Search based on keywords and metastructures	Identify and retain expert assistance	Solicit response from community membership
Knowledge Acquisition Directive	One should know where to look	One should know who knows	One should be engaged in the relevant socio-professional circles
Success Factors and Challenges	<ul style="list-style-type: none"> <li>-Motivating stakeholders' ongoing contributions of proprietary knowledge to data repositories</li> <li>-Motivating reuse of knowledge objects</li> <li>-Identification of proper meta-structures or classification schemes</li> <li>-Codification of unstructured, complex, contextualized, ephemeral, or dynamic knowledge</li> </ul>	<ul style="list-style-type: none"> <li>-Motivating experts' availability and help</li> <li>-Balancing between experts' supply and demand</li> <li>-Mapping and updating the myriad expertise of members, particularly their implicit capacities</li> </ul>	<ul style="list-style-type: none"> <li>-Nurturing ecology of ongoing knowledge sharing</li> <li>-Cultivating a sustainable community based on long-term relationships</li> <li>-Developing mechanisms to facilitate knowledge exchange</li> <li>-Developing grand narratives and boundary objects to facilitate knowledge sharing</li> </ul>

*Table 1. Comparison of the knowledge management systems archetypes*

### 3 APPRECIATIVE INQUIRY

First articulated by Cooperrider and Srivastva (1987) as an enhanced form of action research and later proliferated into organizational development and change circles as a methodology of choice (Bushe 1995), appreciative inquiry is about the “co-evolutionary search for the best in people, their organizations and the relevant world around them” (Cooperrider & Whitney 2000, p. 5). It is a philosophy of knowing that has been applied as a methodology for managing organizational change, community building, system design, and scientific research. As described in the subsequent sections, we submit that appreciative inquiry can also benefit the design and implementation of knowledge management systems.

Appreciative inquiry is an affirmative epistemology that both challenges and complements the problem-oriented view inherent in current IS research. It is part of a larger paradigm that focuses on a positive way-of-knowing and explicitly defines itself as theoretically counter to deficit thinking. Recent appreciative studies in various disciplines examine topics such as positive human dynamics, positive forms of organizing, positive relationships, and positive modalities of change (e.g., Seligman & Csikszentmihalyi 2000). One fundamental characteristic of appreciative inquiry is the vigorous desire to learn what is conducive to success. In appreciative inquiry, the process often starts with an appreciation of what works best. The underlying premise is that in human systems there is always

something that can be appreciated and cherished. The initial outlook is reflective and explicitly affirmative. Grounded in their aptitudes and lifted with positive affect, those who pursue appreciative inquiry search for an array of ideal possibilities, of which they pick and pursue that which is most desired.

An inherent part of appreciative inquiry is its affirmative and positive stance with respect to the world. Metaphorically speaking, the appreciative inquiry stance implies that one, or an entire organization, chooses to see a partially filled glass of water as half-full rather than half-empty. This is not to say that there are no more problems to be solved, flaws to be fixed, recurrent misguided behaviors, and other cracks to be repaired. However, following the appreciative approach, we explicitly and intentionally put all these caveats aside and focus our attention on seeking and building upon what we consider to be strengths, capacities, possibilities, goodwill, modalities of cooperation, and the grace of the human spirit.

Adapted from Avital (2002), the guiding principles of appreciative inquiry are summarized in a nutshell, as follows:

*The constructionist principle.* As a product of the socio-rationalist paradigm, appreciative inquiry builds on Lewin's (1951) conviction that social existence is governed by our interpretation of the circumstances, and Gergen's (1994) notion of a socially constructed reality. Knowledge is created and interpreted through collaborative social interactions.

*The anticipatory principle.* Our image of the future informs and guides the present actions we pursue. Appreciative inquiry holds that through our presuppositions, and particularly choice of method and language, we largely create the world we later discover. The well-documented effect of "self-fulfilling prophecy" (Merton 1948) has clear and direct implications for the kind of language we ought to use in building and using knowledge repositories.

*The interdependence principle.* Inquiry and its consequences are interdependent—they happen simultaneously and affect one another recursively. The interdependence between *action* and *structure* is one of the underlying features of Giddens' (1979) Structuration Theory, which argues that "...in social theory, the notions of action and structure presuppose one another" (p. 53). In the same vein, knowledge architecture and knowledge use presuppose one another—the structure and the application of knowledge are interdependent.

*The situated reality principle.* An organization is best described by its stakeholders who hold a diverse set of coinciding perspectives and beliefs about the nature of the organization and its activities. Adapted from Jungian thinking (Jung 1970), the situated reality principle in the context of organizations expresses a priori recognition of the legitimacy of contextually-based multiple views, multiple realities, and multiple truths, which may coexist simultaneously and change frequently. Applying the situated reality principle in the context of knowledge management allows one to provide and to account for a mental space for multiple voices to be heard and to coexist. This worldview is, of course, in contradiction to the position of many knowledge management architectures that model organizations as structured unidimensional entities, which move in homogeneous time and space according to a deterministic set of rules. The notion of multiple situated realities should be central to leveraging the diverse knowledge base in organizations.

*The positive principle.* Appreciative inquiry solicits a very distinct way of looking at the world, which may be characterized as affirmative, appreciative, positive, optimistic, and hopeful. This affirmative stance, as a fundamental outlook, is not negotiable—it relentlessly embraces the mythical search for the true, the good, and the beautiful as a virtue, and applies these qualities to organizational action and social studies. The explicit choice to adopt an affirmative lens in knowledge management is not only an ethical prerogative and an esthetic preference, but it is also a practical consideration. Focusing on the high points of organizational life is a sure way to identify best practices, to encourage emerging innovation, and to motivate, inspire and energize workers.



*The habitual inquiry principle.* The questions we ask are the seeds of subsequent transformations, and thus, the way we know is fateful. Questioning has a central role in appreciative inquiry which involves crafting "good questions"—questions that inspire with their encapsulated possibilities and serve as a springboard. Another aspect of the habitual inquiry principle refers to the passionate preoccupation with questions and their impact on consequent action. The emphasis here is on the ongoing process of asking questions. The architecture of knowledge management systems should facilitate and encourage continuous inquiry because it keeps an organization alert and zealous, capable of dealing with whatever comes its way. Habitual inquiry can help steer an organized action in the sea of possibilities and provide momentum to social action.

*The participatory principle.* Following Kurt Lewin's (1951) teachings, appreciative inquiry is driven by a whole system's participatory action, which is based on a collaborative, self-regulated, grounded in context, diversity-tolerant, dialogic, optimistic, affirmative and relational process. Participatory action is driven by relationships, which evoke a sense of ownership, a sense of responsibility, and a sense of duty. It is a self-driven voluntary act that cannot be commended or controlled effectively by standard operating procedures. Adopting the principles of participatory design and action in the context of knowledge management systems creates an environment in which all partners have a feeling of significance, a sense of purpose, psychological ownership and camaraderie. Such an environment is receptive to diverse and unorthodox ideas, out-of-the-box thinking, and homegrown opportunities.

These seven principles provide a good way to grasp the nature of appreciative inquiry as worldview and its potential to guide knowledge management in organizations. Each of the principles sheds light on a different facet of appreciative inquiry and, together, they form a unique theory and paradigmatic stance.

#### **4 THE COROLLARY RELATIONSHIP BETWEEN KNOWLEDGE MANAGEMENT AND APPRECIATIVE INQUIRY**

We submit that *appreciative inquiry* can benefit the design and implementation of knowledge management systems. In their root cause, both knowledge management and appreciative inquiry "involve systematic discovery of what gives *life* to a living system when it is most alive, most effective, and most constructively capable in economic, ecological, and human terms" (Cooperrider 1998). Further insight into the entwined trajectories of the two is echoed in Stamps and Lipnack's (2004) discussion of the complementary relationship between appreciative inquiry and the networked organization that underlies any knowledge management system. This is not to say that knowledge management systems and appreciative inquiry are the same, but to argue that there is much overlap in the essence of their core processes and underlying objectives, which build on a generative co-creation and reproduction of situated knowledge through instances of dialogic acts.

Whereas knowledge management systems aim to identify the substantive organizational knowledge in its broadest sense and leverage it to benefit the organization and its stakeholders (Alavi & Leidner 2001), appreciative inquiry is also about the search for the best in people, their organizations, and the relevant world around them (Cooperrider & Srivastva 1987). Evidently, both knowledge management and appreciative inquiry attempt to amplify human and organizational capacities by leveraging the best of each. On one hand, knowledge management implies an *appreciative stance*, holding that people are self-driven, free agents, having a curiosity to learn, a need for self growth, a willingness to contribute, and a tendency to share (Senge 1990). It also implies the appreciation of the core capacities and best practices already pervading the organization. On the other hand, appreciative inquiry implies a systematic search in an attempt to identify existing *core knowledge* and to leverage it in a system-wide co-creation of visionary futures. While some knowledge management theorists, such as Cook and Brown (1999), regard inquiry as a "generative dance" between knowledge and knowing, appreciative inquiry theorists emphasize the relational aspect of "generative knowledge." Therefore, we submit that knowledge management involves appreciative inquiry, and that appreciative inquiry

involves knowledge management. They are intrinsic to one another, and thus we cannot discuss one without implying the other.

In spite of the distance between their root disciplines and the different orientation of the intentions of their conveners, knowledge management and appreciative inquiry can reinforce each other. Building on their shared paradigmatic footprint, we can apply the strengths of each to enhance the capabilities of the other. This essay examines one side of this duality—the potential contribution of appreciative inquiry to knowledge management practices.

## **5 BOLSTERING UP KNOWLEDGE MANAGEMENT WITH APPRECIATIVE INQUIRY**

A positive discourse can change organizational life and add value by emphasizing capabilities over deficiencies, possibilities over constraints, creativity over procedures, and esprit de corps over accountability barriers. While the current practices of managing organizational knowledge often run the risk of being trapped in vicious cycles of self-inflicted shortcomings, a positive discourse allows for emerging virtuous cycles that build on homegrown insights. The development of an appreciative-inquiry-based mode of inquiry opens new horizons and uncovers previously overlooked possibilities, which eventually can contribute to the overall organizational well-being.

Appreciative inquiry can help organizations to refocus on the human factors of the development and management of knowledge exchange systems. Appreciative inquiry can make a difference in the “way we know” by providing a fresh look at the organizational mélange that produces and is reproduced by knowledge management systems. More particularly, the underlying proposition of this essay is that appreciative inquiry can motivate organization-wide adoption of knowledge management systems, and it can provide language-based mechanisms to facilitate effective knowledge exchange. These two are not only critical for the success of any knowledge management system, but are also the Achilles heel of most attempts to implement such a system.

### **5.1 Motivating organization-wide participation**

Knowledge management systems are effective only if they attract and sustain a wide base of contributors and users. One of the main challenges that knowledge management practitioners face is to build up and sustain a critical mass of vital knowledge. Knowledge management projects often fail simply because people are not willing to share with others what they know. Reluctance to share knowledge is attributed to a variety of reasons, ranging from a fear of losing power or leverage, to a highly competitive environment, to a culture of confidentiality, and to merely the perception that sharing is nothing more than a low-priority, time-consuming chore (Hansen 1999). Many knowledge management initiatives that start very well often fade shortly after the launching phase (Rumizen 2002). As a remedy, the conveners of knowledge management projects usually attempt to motivate knowledge sharing using various recognition incentives from concrete merit awards to status symbols such as titles and privileges. Nonetheless, extrinsic incentives tend to fade and become ineffective in the long run.

Appreciative inquiry is inclusive, affirmative, relational and self-driven. Given these inherent attributes, if applied to the organizational knowledge systems, appreciative inquiry practices can potentially turn every stakeholder into a participating agent. A critical success factor of knowledge management systems is a wide and diverse user base. Many knowledge management systems aim to include all stakeholders, but often end up providing access and resources to a few privileged ones (Fulmer 1999). By contrast, appreciative inquiry provides mechanisms for genuine whole-system participation. It seeks common ground but also allows individual voices to be heard. It recognizes

multiple ways of knowing, and regards social reality as being open to multiple interpretations, indefinite reconfigurations and changes.

Whereas the affirmative nature of appreciative inquiry provides a safe environment to share knowledge, the inherent explicit inquiry process itself makes sharing a relevant and actionable priority. With appreciative inquiry, sharing knowledge becomes a natural and integral part of the organizational experience and the professional practice. In spite of the a-priori organizational sponsorship, appreciative inquiry is voluntary and builds on people's intrinsic motivation, which, in turn, lays the grounds for sustainable, long-term engagements embedded in situated social networks and a culture of activism and sharing.

## 5.2 Honing the transformative lingual facet of knowledge exchange

The socio-rationalist underpinnings of appreciative inquiry, combined with its unique affirmative stance and the explicit emphasis on systematic inquiry make it a natural counterpart in knowledge management systems projects. One of the key advantages that appreciative inquiry can bring to the prevailing knowledge management practices is its unique treatment of the language-in-use, thereby, redefining the organizational discourse that drives action, performance, and ultimately, everyone's well-being. Appreciative inquiry can help in identifying the most vital knowledge, asking the right questions, illuminating the role of language, and unleashing the underlying narratives throughout the organization.

*Identifying the vital knowledge.* Knowledge acquisition often turns out to be a bottleneck in the construction of an organization's knowledge base due to the difficulties in identifying, let alone keeping tabs on core capacities, capabilities and best practices. Common practice prescribes the appointment of a handful of knowledge-architects to be responsible for mining, soliciting, and capturing knowledge from key sources and translating it into a designated metastructure. This, of course, applies particularly to codified knowledge repositories and expert directories. In communities of practice, the schemas are informal but are still controlled by a small circle of gatekeepers and the in-situ culture. In contrast, appreciative-inquiry-infused knowledge-management practice moves the burden of identifying the vital knowledge to the community at large. Appreciative inquiry implies a system-wide discovery process in which everybody is engaged systematically in identifying and maintaining a catalog of capabilities. Instead of relying on a few knowledge-architects, everyone in the organization is encouraged to be part of the discovery process through conducting interviews with several self-chosen relevant stakeholders. The interview process, in combination with large scale summit meetings (Cooperrider & Whitney 2000), provides a diverse view and overall better coverage of areas that otherwise might have been overlooked. Appreciative-inquiry-based discovery of the life-giving forces and organizational capacities is superior: it provides a fuller view of the knowledge resources, and it also enhances the sense of ownership and organizational vigor, which subsequently translates into action and desired outcome.

*Asking the right questions.* Questions are fundamental and ubiquitous in the human experience—they are the seeds of discovery. We start most of life's journeys with a seed question, we progress through guiding questions, and we end up reflecting on our experience with retrospective questions. Excellence and innovation often stem from original questions that challenge conventional forms, spark the imagination, and span the boundaries of understanding. Building, maintaining, and using knowledge management systems also involves asking numerous questions. By its very nature, the way we ask has an acute effect on the answers we get. In this respect, using knowledge management systems is similar to fishing—the catch-of-the-day is determined largely by where one looks and the tools one uses. As situated practitioners, organizational actors must engage in inquiry of their respective environments in order to do their work. The “next step” of their work process depends largely on where they look for information, who they ask, what, when, and, most importantly, in what way. Their actions emerge in response to this inquiry, which, as it turns out, determines both their process and product.

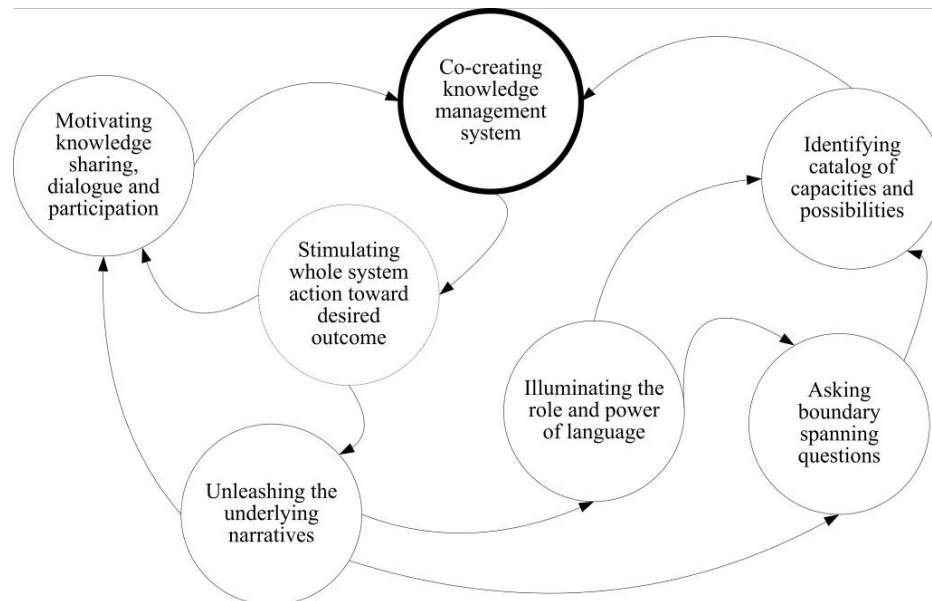
The current design philosophy of knowledge management systems tends to disregard the critical role of questions in shaping knowledge production and use. Overall, knowledge-architects focus on a myopic description of past-to-present-perfect events, without much regard for how it may affect the future. For example, BP asked people to answer four questions: 1) What *was* supposed to happen? 2) What actually happened? 3) What *worked* well? 4) What *did* not work well (Rumizen 2002). That they focused on the past without much concern for the future is evident. Companies that fail to challenge their own "best practices" find that past performance alone is not a good indication of the near future. For example, see NCR, World Aluminum Corporation (Leonard-Barton 1995) and Polaroid (Tripsas & Gavetti 2000).

Paying attention to the underlying questions that yield the knowledge is a fundamental virtue of appreciative inquiry, which encourages people to challenge myths, the status quo, and other *sacred truths*. In appreciative inquiry, rather than aiming to emulate "best practices" as an end, we search for "best capacities" as the starting point of a journey into an envisioned desired future. The temporal perspective is equally distributed among past, present and future. Appreciative inquiry provides mechanisms to *practice* reflection, inquiry, and careful attention to the kind of questions asked. Questions are treated with the respect they deserve in the innovation value chain. They represent, sometimes naively, a sense of wonder and an urge to learn, rather than a post-hoc rhetoric to introduce a known solution or an agenda to be promoted. Most importantly, a good question is one that raises more questions, provokes debate, encourages probing into deeper layers of a subject matter, challenges the guiding assumptions and the status quo, and ultimately transforms social reality and conduct.

*Illuminating the role and power of language.* Knowledge representation and language are inseparable. Knowledge-architects seem to perceive the link between the two as trivial. They often fail to realize that the successful impact of the systems they design is not only subject to technology-related considerations but also to the kind of language used throughout the process. In codified repositories and expert directories, language is treated mainly in the context of formal classification schemes, knowledge metastructure, and search and retrieval. In communities of practice, language is treated merely as cultural glue that holds together the accumulated professional tradition and the prevailing social institutions. In contrast, appreciative inquiry takes everyone's attitude to language to another level of consciousness—it places the notion of social construction in the forefront of any dialogue and makes one's language choice an explicit bona fide consideration in both formal and informal engagements. Language choice has ramifications on every facet of knowledge management. Knowledge-architects can apply appreciative inquiry to demonstrate and clarify the effect of language on organizational life and the way knowledge is produced and reproduced in the course of day-to-day action. By following the appreciative approach, we explicitly and intentionally focus our attention on seeking and building upon what we consider to be strengths, capacities, possibilities, goodwill, modalities of cooperation, and the grace of the human spirit.

*Unleashing the underlying narratives.* Knowledge management literature has documented the power of stories. Practitioners usually resort to stories and case studies to transfer knowledge, especially tacit knowledge, within the workplace (Swap et al 2001), to communicate the importance of knowledge management (Rumizen 2002), or to create an environment receptive to new organizational initiatives (Denning 2001). Swap et al (2001) argue that contextualized narratives are the preferred medium to communicate managerial systems, norms and values, because stories are vivid and grounded in direct or vicarious experience. For example, "war stories" was used by technicians at Xerox to diagnose the odd noises made by the machines (Orr 1990); and the legendary story about Tom Fry's *PostIt* encouraged 3M employees to think-out-of-the-box (Garud & Karnøe 2001). In spite of the important role of storytelling in supporting the organization's mission and value, current knowledge management systems rarely, if at all, deal with how exceptional stories are discovered and told. Rather than leaving it to chance or ad hoc improvisation, appreciative inquiry provides mechanisms for the systematic collection and dissemination of high-point stories throughout the organization.

Most people tend to tell negative rather than positive stories about their organization (Neuhauser 1993), and even positive images are often framed in negative terms. For instance, the World Bank's



knowledge management initiative were aimed at creating “a world free of poverty” (Fulmer 2001), and best-practice stories were told to remind the audience of their own “problems” (Denning, 2001). Had they applied appreciative inquiry, they would have stayed away from such a deficit perspective and reframed their mission as “a world of prosperity” or discussed best practices to remind people their “achievements.” An inherent part of appreciative inquiry is its affirmative and positive stance with respect to the world. The appreciative-inquiry approach generates positive images framed in positive terms, giving fuller wings to people’s images of the future and enhancing the potential to turn these visions into thriving reality.

### 5.3 An integrative view

Knowledge management systems have the potential to provide much value to their host organization. Their success is driven to a large degree by two critical factors: the adoption of the system by a critical mass of users and the system’s ability to capture and disseminate knowledge effectively. We have shown that appreciative inquiry can enhance both of these factors—and make significant contributions to the current practices of knowledge management design. The virtuous cycle of an appreciative-inquiry-infused knowledge management system is illustrated in Figure 2, which shows how it can supplement and enhance the prevailing knowledge management practices to stimulate action toward desired outcomes.

## 6 CONCLUDING NOTE

The generic approach to managing organizational knowledge strengthens our ability to analyze processes that can be fine-tuned to fit with best practices and to exercise tight control over resources through efficiency-oriented detailed procedures. The alternative approach in this essay offers an appreciative-

*Figure 2. The potential effects of appreciative inquiry on organizational knowledge production system*

inquiry-based discourse that reveals core capacities, opens dialogue, and encourages co-creation of desired futures. Appreciative inquiry, as a methodology, can provide knowledge management with an additional perspective—a collaborative, optimistic, inspiring, and thought-provoking new standpoint.

Beyond this rudimentary framework, future research can examine issues such as the effect of positive reframing of knowledge, the framework for nurturing knowledge-sharing cultures, the social process and work practice in knowledge management, and the development of cross-boundary knowledge-sharing networks. Considering the corollary relationship between knowledge management and appreciative inquiry, we also need to examine what appreciative inquiry practitioners can learn from knowledge management theory and practice.

The development of an appreciative-inquiry-based mode of knowledge management opens new horizons and uncovers previously overlooked possibilities, which can eventually contribute to the overall organizational well-being. The appreciative inquiry approach is suggested here as one additional tool for the arsenal of knowledge designers and managers. We do not argue that the appreciative-inquiry approach should replace any other approach. We suggest that it provides a new vocabulary and new perspectives on knowledge management, which may allow new possibilities to emerge. After all, words create worlds.

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