

The Ecology of Knowledge:

A Field of Theory and Practice, Key to Research & Technology Development

**Position paper prepared
by**

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Good News, Bad News, Good News

Humankind's most profound revolution is unfolding in front of our eyes. Its stake is to transcend the tyranny of the alienating division of work and play, thinkers and doers, that governs life in organizations.

The main danger that can jeopardize the success of this revolution is the deepening gap between the human condition and our capacity to understand it. Do you remember, "if H-P knew what H-P knows"? Can you imagine if a whole industry knew what it knows? If the gap between market innovations and our capacity to understand it was covered? Knowledge Ecology (KE) is the bridge.

A difference with the most profound implications for directing RTD policy is between "information" and "knowledge." At the core of KE there's a distinctive understanding and use of that difference.

To realize the full potential of the "Knowledge Ecology" distinction, we need to first grasp the power of the distinction called "distinction."

Distinctions Create Opening for Action

"We see and hear with our distinctions. To distinguish is to generate a new possibility in language. When you distinguished something you brought something to life. You've infused life into an inert or invisible possibility."

- Dick Eppel, CEO of I-Bus,

in an online conversation with George Pór, 94.4.29

Distinctions are words that specify domains of action; our distinctions and the beliefs/models formulated from them define our reality. Distinctions are powerful because they identify and

distinguish containers/structures for meaning and action, which mediate between us and--organizational--reality.

Our awareness of their existence acts like an agreement to remember, revisit, and reorient ourselves to the value of what we have discovered. Our distinctions are the "gems" we have collected in journeys over the various knowledge "landscapes" we have traveled. Distinctions, like product labels, can be invoked as a constant reminder of the richness and the fullness inside.

Good distinctions do more. They add value and motivate beyond what is possible in a definition because they provide both a generative seed and a direction around which a group can align and exert coherent action. They are a way of knowing and remembering what we know. Signposts for ourselves and others following our leadership.

What Is Knowledge

Knowledge and learning are social activities, by which we evolve ourselves as individuals and communities. Interaction between individuals with other individuals, communities, organizations, and knowledge artifacts, is the source of knowledge creation, sharing and utilization.

To understand the implications of the difference between knowledge and information, consider:

It is as if archers had to select between two targets at an archery match. One target gives you the winning points and the other one everyone is pointing at and talking about. From their excitement and the language they are using, you cannot tell the difference.

The first target is knowledge. The second target is information. We must know the difference. We must know the difference between the two to win this match.

"Knowledge is information that changes something or somebody - either by becoming grounds for actions, or by making an individual (or an institution) capable of different or more effective action"

- Peter Drucker

"To conceive of knowledge as a collection of information seems to rob the concept of all its life... Knowledge resides in the user and not in the collection. It is how the user reacts to a collection of information that matters."

- West Churchman

Knowledge is the capacity to act, and this is a capacity that "emerges" from the relationships that exist and can be productively facilitated within organizations.

Books, databases, lists of "best practices", helpdesks, etc ... do not have the capacity to act. They are "information", not "knowledge."

They are important, they contribute to and influence our capacity to act. They influence our knowledge; yet they are not knowledge and do not possess or hold knowledge. People do. Organizations do.

Although their wording varies somewhat, leaders in fields as seemingly diverse as management science, ecology, cognitive psychology, organizational development, and artificial intelligence have been aligning productively around this perspective for over ten years.

What Is Knowledge Ecology

Knowledge exists in ecosystems, in which information, ideas, and inspiration cross-fertilize and feed one another. The imagery of KE draws on natural ecosystems and their balance. The higher the diversity of an ecosystem, the more robust it is and stronger its chance is of survival. The same applies to knowledge ecology.

KE is "ecological" in the sense that the best models we have for knowledge designs that create, sustain, and foster organizational learning and development are natural "learning organizations," for example, ecosystems and brains. Recognizing the value of understanding natural systems, we are also aware that the volitional, language based social systems bring new possibilities for design and feedback to our human institutions.

KE is an interdisciplinary field of management theory and practice, focused on the relational and cultural aspects of knowledge creation and utilization. KE brings the insights gleaned from the operation of living systems to knowledge development and use in organizations. Its primary study and domain of action is the design and support of self-organizing knowledge ecosystems

The heart of KE is the art and science of collaborative midwifing the emergence of meaning and value from productive conversations. KE provides a framework, tools and practices for crafting and sustaining evolving webs of relationship in which to embed and preserve the evanescent knowledge that is always inherent in social activity.

Here are two more comments about KE by keynote presenters at [Knowledge Ecology Fair 98:](#)

"The traditional view of knowledge management primarily focuses on information, whereas the knowledge ecology adds the context, synergy, and trust necessary for translating such information into actionable knowledge."

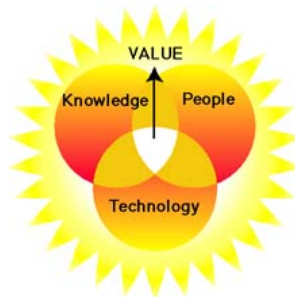
"Conversations about questions that matter are at the heart of knowledge ecology, the communal dimension of knowledge creation, knowledge evolution, and knowledge sharing. In a sense, we see an organization as the ongoing evolution of a web of conversations through which the organization embodies its present and evolves its future."

- Juanita Brown,
- President of Whole Systems Associates

The Value Proposition of KE

Dysfunctional knowledge ecologies are costly to organizations, in terms of the cost of productivity lost due to hoarding that causes that triggers the "reinventing the wheel" syndrome, overload that leads to poor decision making, and slow dissemination of innovative practices that causes variance in performance.

Research focused on increasing the health and vibrancy of existing organizational knowledge ecologies, should be concerned by improving the performance and interconnectedness of the following triple network



Organizational competence emerges from a knowledge ecosystem which can be understood as people networks creating knowledge networks, supported by technology networks.

By "knowledge network" we mean the frequently unmapped web-like connections not among people, but their knowledge and insights interacting with one another, that organizations produce in their normal course of action.

"Technology network" in this context means more than what technologists call "networks". It is comprised of all the technological means that support communication and collaboration for knowledge creation, sharing and utilization, including virtual worlds, action scripts, webconferencing, process templates, etc.

Why don't organizations know what they know? What difference could it make in increasing capabilities and performance, if they did?

How can organizations foster the rapid growth of new competencies needed in the new economy, and develop new organizing practices capable to take advantage of fast-moving technological innovations?

These are burning questions that many chief knowledge officers and other executives in charge for their companies' strategic knowledge initiatives are asking from themselves.

KE is a perspective within which these questions - and others just as critical - can actually be answered with emerging interdisciplinary insights into the organization and operation of living systems.

Corporate knowledge ecosystems are complex adaptive systems. Their power is in the flexible and evolving relationships among the elements of the system, which interact in complex and often surprising ways. Adaptation is constant as the system seeks to maintain a recurrent pattern, an order at the edge of chaos.

Seen through the KE lens, those who will succeed in playing for repeatable wins in fast-shifting market conditions, will be the companies who learned to increase value to all stakeholders, by making their strategies benefit from the combined power of the triple network: People - Knowledge - Technology.

To find out more about KE and its relationship with KM, look up the Frequently Asked Questions about Knowledge Ecology.

Operating Principles of KE

1. Each individual has something to contribute from their personal history and current intentions, which will increase the richness and future possibility of their communities. They will be encouraged to contribute that and structures and practices will support that intention.
2. Each individual and corporation is capable of growth and development and the KE community will encourage institutions to create the conditions for that to occur.
3. Increasing social knowledge is the basis for future viability of both institutions and those who participate in them and we will constantly challenge current knowledge in the pursuit of what is possible.
4. Knowledge is created, renewed and maintained by continuing connection to the larger environment in which it exists and its synergistic and emergent possibilities arise in this way.

5. Freedom is the natural condition for individuals and each individual is responsible for their contribution to the whole and for seeking that which will connect them to the whole.

6. Knowledge compounds when it is engaged with the larger environment. It will be actively shared with others to enhance the possibilities of rapid development and application.

7. Knowledge is situated in individuals, communities and institutions and each has the right to be given credit for what they create and acknowledged for their contribution.

8. The source of the value of knowledge is use rather than mere possession and we promote the application and use of knowledge.

[\(Excerpt from Source Document for Knowledge Ecology\)](#)

KE Practices

We commit to practices, which will forward our intentions and create the culture and environment where they will flourish in all institutions and communities of which we are a part. These practices will generate an environment of trust, respect for individuals and diversity, responsibility, creativity, risk taking and mutual support. In particular, our behavior and action and regular practices will encourage the continuous development of knowledge at all levels - individual, community, institution and social - and call for continual challenge of what we are for what we can become.

It is important that we be able to state our practices and standards in this respect and be willing to demonstrate how we are supporting, by our actions, the environment that we commit to. It is important that we are free to challenge and be challenged in this regard. The fundamental test is not if we have the "right" practices but that we have explicit ones that we are practicing and open to question about.

We commit to practices which encourage listening, dialogue, participation, openness, inquiry, reflection, sharing and increasing knowledge for ourselves, those around us and the whole corporation or community. We commit to these practices in the context of realization of the synergy between personal growth and expression and organizational productivity.