We really do live in the Information Age, a revolutionary era when the availability of information is changing everything. Nothing is the same since the world was networked together and information became instantly accessible. Information has destroyed boundaries, borders, boxes, distance, roles, and rules. The availability of information has dissolved the walls of repressive governments, secretive executives, and is creating the greatest mass empowerment of all time. Because of access to information, we are in new relationships with everyone: with medical doctors (we go to the web and learn more than they do,) with car salesmen (we know the real sticker price,) and with leaders of all kinds (we know when they walk their talk). The worldwide web has created a world that is transparent, volatile, sensitive to the least disturbance, and choked with rumors, misinformation, truths, and passions.

This webbed world has changed the way we work and live. 24/7 is one consequence of instant access and the dissolution of boundaries. We no longer have clear lines between work and private life-if the cell phone is on and there's a phone jack available, bosses and colleagues expect us to be available. Increasingly, it's impossible to "turn off," to find time to think, to take time to develop relationships, to even ask colleagues how they're doing.

Information has changed capitalism and the fundamental character of corporate life. Corporations now play in the global casino--focused on numbers moment to moment, suffering instant losses or gains in trading, merging to look powerful, downsizing to look lean, bluffing and spin doctoring to stay in the game. In this casino environment, long-term has disappeared, thinking for the future is impossible, and developing an organization that will still be around in 20 years seems like a sentimental and wasteful activity.

These are only a few of the profound changes created by the Information Age. A September 2000 study by a futures group from the U.S. Military summed it up this way: "The accelerated pace and grand breadth of information exchange is arguably beyond comprehension and certainly out of control. With so much information to choose from, each day it becomes harder to determine what is real, right, and relevant to peoples' lives." (italics added. Beyond the Precipice-Amid Waves of Change: Strategic Scouts Explore the Future. ASAF Institute for National Security Studies and the Air University.)

Knowledge Management is a survival skill

In this time of profound chaos and newness, we still have to do our work. But what is our work? For those in human resources information management, there is relentless pressure to find ways for technology and people to support organizations through this tumultuous time.
Organizations need to be incredibly smart, fast, agile, responsive. They need to respond and make smart decisions at ever-increasing speed, even as the unintended consequences of speedy decisions flare up in a nanosecond and keep leaders focused only on fire-fighting. The old days of "continuous improvement" seem as leisurely as a picnic from the past. In this chaotic and complex twenty-first century, the pace of evolution has entered warp speed, and those who can't learn, adapt, and change moment to moment simply won't survive.

Many of these organizational needs are bundled together today under the banner of Knowledge Management. The organization that knows how to convert information into knowledge, that knows what it knows, that can act with greater intelligence and discernment—these are the organizations that will make it into the future. We all know this: our organizations need to be smarter. Knowledge Management (KM) therefore should be something eagerly accepted by leaders, it should be an incredibly easy sell. Yet KM appears at a time when all organizations are battered and bruised by so much change, entering the Information Age after decades of fads, by investments in too many organizational change efforts that failed to deliver what was promised. These experiences have exhausted us all, made many cynical, and left others of us worried that we'll never learn how to create organizations that can thrive in this century.

Unlike past organizational change efforts, Knowledge Management is truly a survival issue. Done right, it can give us what we so desperately need—organizations that act with intelligence. Done wrong, we will, like lemmings, keep rushing into the future without using our intelligence to develop longer-term individual and organizational capacity. To continue blindly down our current path, where speed and profits are the primary values, where there is no time to think or relate, is suicidal.

**Beliefs that prevent KM**

How can we ensure that KM doesn't fail or get swept aside as just the most recent fad? How can we treasure it for the life-saving process it truly could be? For Knowledge Management to succeed, we will need to lay aside these dangerously out-of-date beliefs:

- **Organizations are machines.** This belief becomes visible every time we create separate parts—tasks, roles, functions—and engineer (and reengineer) them to achieve pre-determined performance levels. It is the manager's role to manage the parts to achieve those outcomes. Strangely, we also act as though people are machines. We attempt to "reprogram" people with new training and technology, hoping that, like good robots, they will go off and do exactly what they're told. When people resist being treated as dumb machines, we criticize them as "resistant to change."

- **Only material things are real.** A great deal of our efforts focus on trying to make invisible "things" (like knowledge, commitment, trust, relationships) assume material form. We believe we have accomplished this when we assign numbers to them. This belief combines with the next one;

- **Only numbers are real.** (This belief is ancient, dating back to the sixth century BC.) Once we assign a number to something (a grade in school; a performance index; a statistic,) we relax and feel we have adequately described what's going on. These two beliefs reinforce this one;
You can only manage what you can measure. We use numbers to manage everything: ROI; P/E ratios; inventory returns; employee morale; staff turnover. If we can't assign a number to it, we don't pay it any attention. To keep track of increasingly complex measurements, we turn to our favorite new deity, which is the belief that;

Technology is always the best solution. We have increasing numbers of problems, which we try to solve using technology. But this reliance on technology actually only increases our problems. We don't notice that the numeric information we enter in a computer cannot possibly describe the complexity of the experience or person we are trying to manage. By choosing computers (and numbers) as our primary management tool, we set ourselves up for guaranteed and repeated failures.

All of these beliefs show up strongly in Knowledge Management. We're trying to manage something—knowledge—that is inherently invisible, incapable of being quantified, and born in relationships, not statistics. And we are relying on technology to solve our problems with KM—we focus on constructing the right database, its storage and retrieval system, and assume we have KM solved.

The Japanese approach KM differently than we do in the west. The differences in approaches expose these Western beliefs with great clarity. In the West, we have focused on explicit knowledge—knowledge one can see and document—instead of dealing with the much more important but intangible realm of "tacit" knowledge, knowledge that is very present, but only observable in the doing, not as a number. American and European efforts have been focused on developing measures for and assigning values to knowledge. Once we had the numbers, we assumed we could manage it, even though more and more people now acknowledge that "Knowledge Management" is an oxymoron.

Current approaches to KM in the west demonstrate that we believe the following: knowledge is a thing, a material substance that can be produced, measured, catalogued, warehoused, traded, and shipped. The language of KM is littered with this "thing" thinking. We want to "capture" knowledge; to inventory it; to push it into or pull it out from people. One British expert on KM, David Skyrme, tells that in both Britain and the U.S., a common image of KM is of "decanting the human capital into the structural capital of an organization." I don't know how this imagery affects you, but I personally don't want to have my head opened, my cork popped, my entire body tilted sideways so that what I know pours out of me into an organizational vat. This prospect is not what motivates me to notice what I know, or to share it.

These language choices have serious implications. They reveal that we think knowledge is an entity, something that exists independent of person or context, capable of being moved about and manipulated for organizational advantage. We need to abandon this language and, more importantly, the beliefs that engender it. We need to look at knowledge—its creation, transfer, and very nature—with new eyes. As we rethink what we know about knowledge and how we handle the challenges of knowledge in organizations, our most important work is to pay serious attention to what we always want to ignore: the human dimension.

Think, for a moment, about what you know about knowledge, not from a theoretical or organizational perspective, but from your own experience. In myself, I notice that knowledge is something I create because I am in relationship—relating to another person, an event, or an
idea. Something pulls me outside of myself and forces me to react. As I figure out what's going on, or what something means, I develop interpretations that make sense to me. Knowledge is something I create inside myself through my engagement with the world. Knowledge never exists independent of this process of my being in relationship with an event, an idea, or another person. This process is true for all of us: Knowledge is created in relationship, inside thinking, reflecting human beings.

From biology, it is evident that we are not the only life form that engages in knowledge creation. Everything alive learns and creates knowledge for its survival. All living beings pay exquisite attention to what's going on in their environment, with their neighbors, offspring, predators, and even the weather. They notice something, and then decide whether they need to adapt and change. Living beings never engage in this process of noticing-reacting--changing because some boss tells them to do it. Every form of life is free to decide what to pay attention to and how to respond. This freedom lies at the heart of life, each species deciding how it will respond to its neighbors and current conditions, and then living or dying as a result of its decisions.

This same autonomy describes us humans, but we tend to find it problematic, if we're the boss. We give staff detailed directions and policies on how to do something, and then they, like all life, use their autonomy to change it in some way. They fine-tune it, they adapt it to their unique context, they add their own improvements to how the task gets done. If we're the one in charge however, we don't see this behavior as creativity. We label it as resistance or disobedience. But what we are seeing is new knowledge. People have looked at the directive, figured out what would work better in the present context, and created a new way of doing it, one that, in most cases, stands more chance of success.

I experienced just such evidence of this knowledge creation process a few months ago as I sat on an airport commuter bus and listened as the driver trained a newly hired employee. For thirty minutes I eavesdropped as she energetically revealed the secrets and efficiencies she had discovered for how to get to the airport in spite of severe traffic or bad weather. She wasn't describing company policy. She was giving a non-stop, virtuoso performance of what she had invented and changed in order to get her customers to their destination. I'm sure her supervisor had no idea of any of this new knowledge she'd been creating on each bus ride.

But this bus driver is typical. People develop better ways of doing their work all the time, and we also like to brag about it. In survey after survey, workers report that most of what they learn about their job, they learn from informal conversations. They also report that they frequently have ideas for improving work but don't tell their bosses because they don't believe their bosses care.

**Some principles that facilitate KM**

Knowledge creation is natural to life, and wanting to share what we know is humanly satisfying. So what's the problem? In organizations, what sends these behaviors underground? Why do workers go dumb? Why do we fail to manage knowledge? Here are a few principles that I believe lead to answers to these questions.
1. **Knowledge is created by human beings.** If we want to succeed with KM, then we must stop thinking of people as machines. Instead, we must attend to human needs and dynamics. Perhaps if we renamed it "Human Knowledge" we would remind ourselves of what it is and where it comes from. We would refocus our attention on the organizational conditions that support people, that foster relationships, that give people time to think and reflect. We would stop fussing with the hardware; we would cease trying to find more efficient means to "decant" us. We would notice that when we speak of such things as "assets" or "intellectual capital" that it is not knowledge that is the asset or capital. People are.

2. **It is natural for people to create and share knowledge.** We have forgotten many important truths about human motivation. Study after study confirms that people are motivated by work that provides growth, recognition, meaning, and good relationships. We want our lives to mean something, we want to contribute to others, we want to learn, we want to be together. And we need to be involved in decisions that affect us. If we believed these studies, and created organizations that embodied them, work be far more productive and enjoyable. We would discover that people can be filled with positive energy. Our organization would be overwhelmed by new knowledge, innovative solutions, and great teamwork. It is essential that we begin to realize that human nature is the blessing, not the problem. As a species, we are actually very good to work with.

3. **Everybody is a knowledge worker.** This statement was an operating principle of one of my clients. If everybody is assumed to be creating knowledge, then the organization takes responsibility for supporting all its workers, not just a special few. It makes certain that everyone has easy access to anyone, any where in the organization, because you never know who has already invented the solution you need. The Japanese learned this and demonstrated it in their approach to KM. I learned it on that bus ride.

4. **People choose to share their knowledge.** This is an extremely important statement, and the operative word is "choose." Most KM programs get stuck because individuals will not share their knowledge. But it's important to remember that people are making a choice to not share what they know. They *willingly share* if they feel committed to the organization, believe their leaders are worth supporting, feel encouraged to participate and learn, and if they value their colleagues. Knowledge sharing is going on all the time in most organizations. Every organization is filled with self-organized Communities of Practice, networks that people spontaneously create among colleagues to help them work more effectively or to help them survive the current turbulence. These communities of practice are evidence of people's willingness to learn and to share what they know. But the organization must provide the right conditions to support people's willingness. Some of these necessary, non-negotiable conditions are:

- people must understand and value the objective or strategy;
- people must understand how their work adds value to the common objective;
- people must feel respected and trusted.
- people must know and care about their colleagues;
- people must value and trust their leaders.

If we contrast this list to the current reality in most organizations, it becomes obvious how
much work is needed to create the conditions for effective KM. The work of KM would be so much easier if this list of conditions wasn't true. But it is a proven list, with more than enough case studies and research to validate it. If we don't vigorously undertake creating these conditions as the real work of KM, then we might as well stop wasting everyone's time and money and just abandon KM right now.

5. Knowledge management is not about technology. This would seem obvious from the preceding statements, but it feels important to stress because we modern managers are dazzled by technical solutions. If people aren't communicating, we just create another website or on-line conference; if we want to harvest what people know, we just create an inventoried data base; if we're geographically dispersed, we just put videocams on people's desks. But these technical solutions don't solve a thing if other aspects of the culture—the human dimension—are ignored. A few years ago British Petroleum successfully used desktop videocams to facilitate knowledge sharing among their offshore oil drilling rigs. But this wasn't all they did. They also worked simultaneously to create a culture that recognized individual contribution, and moved aggressively to create a bold new vision that employees could rally behind (BP became "Beyond Petroleum.)

And many other organizations have learned from experience that if they are want productive teams, they must bring people together in the same space several times a year. They're learning that in the absence of face-to-face meetings, people have a hard time sharing knowledge. It's important to remember that technology does not connect us. Our relationships connect us, and once we know the person or team, then we eagerly use the technology to stay connected. We share knowledge because we are in relationship, not because we have broader band width available.

6. Knowledge is born in chaotic processes that take time. The irony of this principle is that it demands two things we don't have: a tolerance for messy, non-linear processes, and time. But creativity is only available when we become confused and overwhelmed, when we get so frustrated that we admit we don't know. And then, miraculously, a perfect insight appears suddenly. This is how great scientists achieve breakthrough discoveries, how teams and individuals discover transforming solutions. Great insights never appear at the end of a series of incremental steps. Nor can they be commanded to appear on schedule, no matter how desperately we need them. They present themselves only after a lot of work that culminates in so much frustration that we surrender. Only then are we humble enough and tired enough to open ourselves to entirely new solutions. They leap into view suddenly (the "Aha" experience,) always born in messy processes that take time.

In the United Kingdom, Anderson Consulting has listed self-awareness and reflection as critical leadership skills. Some companies have created architectural spaces to encourage informal conversations, mental spaces to encourage reflection, and learning spaces to encourage journal writing and other reflective thought processes. These companies are trying hard to reclaim time to think in the face of prevailing tendencies for instant answers and breathless decision-making. They don't always succeed—warp speed continues its demands and people have less time to use their journals or sit in conversation-friendly architecture.

We have to face the difficult fact that until we claim time for reflection, until we make space for thinking, we won't be able to generate knowledge, or to know what knowledge we already
possess. We can't argue with the clear demands of knowledge creation—it requires time to develop. It matures inside human relationships. Relationships and creativity are always messy and inherently uncontrollable.

Although we live in a world completely revolutionized by information, it is important to remember that it is knowledge we are seeking, not information. Unlike information, knowledge involves us and our deeper motivations and dynamics as human beings. We interact with something or someone in our environment and then use who we are—our history, our identity, our values, habits, beliefs—to decide what the information means. In this way, through our construction, information becomes knowledge. Knowledge is always a reflection of who we are, in all our uniqueness. It is impossible to disassociate who is creating the knowledge from the knowledge itself.

It would be good to remember this as we proceed with Knowledge Management. We can put down the decanting tools, we can stop focusing all our energy on database designs, and we can get on with the real work. We must recognize that knowledge is everywhere in the organization, but we won't have access to it until, and only when, we create work that is meaningful, leaders that are trustworthy, and organizations that foster everyone's contribution and support by giving staff time to think and reflect together.

This is the real work of Knowledge Management. It requires clarity and courage—and in stepping into it, you will be contributing to the creation of a far more intelligent and hopeful future than the one presently looming on the horizon.

**Additional readings, references**

I find the work of Ikujiro Nonaka, or Thomas Davenport always filled with insight. The fact that Nonaka offers both non-Western and Western perspective is extremely valuable to me.

Two books in particular:


And for a rich description of companies that operate in more creative, self-organizing ways, see:

ABOUT MARGARET (MEG) WHEATLEY, Ed.D.
Margaret Wheatley writes, speaks, and teaches how we can accomplish our work, sustain our relationships, and willingly step forward to serve in this troubled time. She is co-founder and President emerita of The Berkana Institute, an organizational consultant since 1973, a global citizen since her youth, and a prolific writer. She has authored eight books. Her numerous articles may be downloaded free at her web site: margaretwheatley.com. For more biographical information, see margaretwheatley.com/bio