

WHERE IS KM GOING?

ABOUT THE CHAPTER

History is a puzzle comprised of many interrelated pieces often provided by eye witnesses. The nature of each individual's contribution often depends on that person's personal experiences and perspectives, even prejudices. This chapter is one person's own individual perspective on the evolution of knowledge management (KM) from 1995 to the present. Someday, someone will compile a large sampling of such perspectives and viewpoints and we will have a more complete and possibly accurate history of KM's startup.

But, more important at the moment than a history of KM's startup is the question, "Where is KM going?"

Where KM is going will of course be based somewhat on where it's been (its roots), and what technology disruptions are going to shape its ultimate future. e.g., robots, drones and artificial intelligence. Hence, this chapter briefly addresses where KM has been, and then especially focuses on some ideas about where KM is going.

The chapter is in two parts: the first is one perspective on where KM has been, by a person who has been in KM since its very beginnings (1995); and then six different, emerging threads that will no doubt enrich the fabric of future KM.

These threads include: 1) a shift from traditional repositories for content management to much more granular knowledge housed in process-oriented **knowledge bases**; 2) emergence of robust **KM methodologies**, not just ad hoc frameworks and roadmaps; 3) the emergence of **advanced maturity models** as powerful business improvement tools, that are more than just diagnostic assessments, but prescriptive tools as well; 4) attempts to define KM by **competency areas** to enable the development of university curricula and help to establish KM as an actual discipline – diplomas being awarded; 5) increased consideration of KM as not just another improvement discipline, but in fact the instigator and enabler of the requisite major transformation by organizations to operate highly effectively in the next episodic event, the Knowledge Age; and finally, 6) a major shift from KM technology solutions, such as repositories, to a focus on human performance in the Knowledge Age.

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WHERE IS KM GOING?

BY DOUGLAS WEIDNER

*One Long-Term Knowledge Manager's Perspectives on KM's Roots by
Chronological Stages and Future*

Mid-to Late 1990s.

Let me tell you a story about KM in the mid- to late-1990s as I experienced it. In 1994, I was a consultant at a U.S. Department of Defense (DoD) think tank focusing on Business Process Reengineering (BPR) and Financial Analysis. DoD is a leader in seeking out ways to improve huge enterprises and it had focused on BPR from the very beginning (about 1992). By 1994, it was determined that despite the potential, DoD's BPR success was mediocre at best. So, DoD commissioned a study group of 30 top consultants from some of the best consulting firms in the Washington, DC area (including a few of the think tanks), to uncover the causative problems and to make specific recommendations.

One of the primary conclusions was that BPR lacked a robust, proven methodology. For instance, most existing BPR methodologies at the time didn't include much about change management or strategic planning. So, we invested much time creating a robust BPR Methodology. At the end of the study, it was determined that the methodology should be published and distributed to all BPR vendors. I was asked to publish the methodology as a representative of a neutral think tank.

The publishing assumption was it should be a typical, hard-copy procedure manual.

But, I had a personal bias against procedure manuals. That's another story, but here it is in a nutshell. I graduated from the U.S. Air Force Academy, where the frequent updates of the Cadet Manual was one

amongst many discipline training efforts. Such cadet manuals didn't need many changes, they had been around since West Point (U.S. Army) was founded in 1802. The changes were less on substance than 'probably' just to make sure each cadet learned to be disciplined in all things. I saw through the effort, whether my interpretation was right or not, who knows? But, that experience made me biased against hard copy procedure manuals. So, I started to lobby for an alternative, an electronic procedure manual – obvious today, but quite radical in 1994. The primary argument was: “You can't depend on thousands of admin folks to remove/replace the many changes that would be necessary to continuously enrich the initial manual.” Also, think how many trees could be saved.

When the e-manual was completed, it satisfied the Knowledge-Age imperative to ‘get the best knowledge to the right person at the right time’, which could easily be the KM mantra. But in 1995, KM was definitely and primarily about repositories, and to a lesser extent, expert locators.

Here's why. To be successful a new discipline needed active sales efforts, which could be justified and provided if the result was a multi-million dollar sale. In those days, multi-million dollar sales were possible if the product was the licensing and installation of an enterprise-wide system, i.e., a repository.

Here's a typical late-1990s KM consultant strategy, which continues to the present. Make inroads into an organization on the basis of their potential interest in the “new thing” (KM) and eventual organizational improvement possibilities, which is the chief executive's primary objective.

In truth, in the late 1990s, it would have been almost impossible for a solo KM consultant to survive, unless they could be the spear point to an eventual big system sale (the shaft of the spear). That typically meant being a consultant within an IT consultancy, which is exactly what I was. Truthfully, it was hard for such a consultant to cover their costs with billable hours, so many of us often incurred many overhead hours, which should have been more accurately allocated to marketing expense than overhead. I recall one \$325 million NASA contract that was awarded to us, according to the government contracting officer, who essentially said, “Most all proposals documented great capabilities, but only your firm touted KM in response to our request for innovation.” I knew my “KM for Rocket Scientists” lectures had helped earn my keep that year.

So, while I saw the power of repositories, I believed process-oriented KBases were the ultimate “KM End Game.” But that insight was an overstatement, as many other initiative types were emerging by 2000. It was also pre-mature as the emphasis was clearly on repositories. See more on granular, process-oriented KBases below, #1 in “Where is KM going?”

Back to the late 1990s. KM repositories, could be labeled ‘Collect’. More precisely, the collection was explicit documents in a repository. Also, some

additional KM methodologies started to emerge, e.g., Amrit Tiwana Knowledge Management Toolkit, 2000, which could be dubbed *KM (as a System Approach)*.

Early 2000s.

By 1999, the US Civilian Government (and many others around the world) were getting very interested in KM, but many were aware of both the mediocre success of 1990s KM, and the growing movement toward the sharing of tacit knowledge (e.g., Expert Locators, CoPs, Knowledge Cafés, etc.) as opposed to a prior focus primarily on explicit information and knowledge. That movement was strong enough that many in the U.S. government even suggested changing the name of KM to *Knowledge Sharing (KS)*.

I definitely believed KS was a key KM scope expansion. For instance, in 1999 I coined a label for the KBase while consulting to the United Nations, which I called *Connect & Collect*. Where collect was the KBase content, possibly created by experts. But if that content fell short of an individual's needs, connect was pointers to experts who might assist. Conversely, some KBases might be originally compiled by conversations amongst experts, and if collected, could be the KBase for future practitioners.

So as a member of various government advisory committees, here's what I suggested based on my first-hand knowledge of the KM marketplace. Many software vendors and consultants were committed to KM as a system, and would be reluctant to change that global focus, just because the US government thought KS should pre-empt KM. I also asked, if KM is called KS, what about knowledge creation? Do we ignore the creation of new knowledge in favor of just focusing on existing, sharable knowledge? In my experience, that would ultimately be a big mistake.

The KM name was never changed, but it did indicate a post 2000 transition to much more focus on connect and conversations vs. just documented explicit knowledge. Primarily, I think the future of KM will be less about just traditional KM – a few enterprise systems or techniques, than ultimately about the emerging tools and techniques to gain the advantages of untapped human potential. At the KM Institute, this initiative is called Personal Knowledge Management. Organizations must leverage a new class of high-performing Knowledge Workers as enablers of their requisite organizational transformation, to survive and prosper in the Knowledge Age.

Some additional post-2020 techniques that I see are described below. These predictions are of course based on my own personal KM perspectives, but my confidence in all the below has continue to grow. In the context of “if and when”. I am very confident that ‘if’ is not an issue, just ‘when’.

Where is KM going? Summary of Six Predictions.

Though an understanding of where we have been is very helpful, it is more important to answer the question, “Where is KM going?” KM is certainly going to be based on where it’s been (its roots), but must be understood in the context of what disruptions are going to shape its ultimate future.

This section is in six diverse parts, which represent a sampling of the many emerging movements that in my considered opinion will define KM by 2020 and beyond, including:

Prediction 1: Performance Support

I predict we will move from repositories as the primary content management source to much more granular knowledge, housed in decision support systems and process-oriented knowledge bases, such as complex processes or methodologies, especially when high turnover is a factor. Such a change will provide ‘Performance Support’. It will probably even revolutionize certain types of traditional organizational training, which will involve less classroom training and much more teaching on how to use and leverage KBase Tools and content to gain the best knowledge, but only when needed—aka ‘Just-in-Time’ learning vs. traditional ‘Just-in-Case’ learning.

Prediction 2: KM Methodology

I predict we will move from ad-hoc frameworks and roadmaps, suitable for executive briefings and ‘calls to action’, to very robust KM Methodologies, which will become a requisite for successful KM.

Prediction 3: KM Maturity Models

I predict robust KM Methodologies will enable us to move from ad-hoc maturity models to fact- or evidence-based models that are not just assessment (diagnostic) tools, but will likely become powerful, prescriptive tools for substantial performance improvement as well. And, perhaps unlike performance support, which will take a while to convince folks to think granular, immediately useful knowledge vs. documents, prescriptive maturity models could happen very soon.

Prediction 4: Defined Competency Areas

I predict KM will mature from ill-defined, uncatalogued, and disparate KM efforts to defined KM competency areas. This will enable the development of more standardized university curricula, and for academics to be able to meaningfully organize the many already-proven KM Initiatives into a rich transformative discipline.

Prediction 5: KM as a Transformational Discipline

I predict we will begin to consider KM as not just another improvement discipline (TQM, BPR, etc.), but in fact the instigator and major enabler of the requisite transformation necessary for organizations to operate effectively and be sustainable as viable organizations in the Knowledge Age.

Prediction 6: Human Capital vs. Technology Focus

Finally, I predict major changes in future KM focus, with an increasing migration from technology-focused solutions e.g., the KM Systems Approach described above, to a much-needed focus on increasing human motivations and individual performance in the Knowledge Age. In well-managed K-Age transformations a class of Knowledge Workers will emerge to be highly-motivated and high-performing Personal Knowledge Managers.

Where is KM going? Details of Six Predictions.

Prediction 1: Performance Support

Process-oriented Knowledge Bases vs. Repositories as a “Collect” Tool.

Let me continue the story started in the intro. After my development of a KBase for BPR, I entered the KM fray thinking that KBases might eventually supplant traditional repositories--not for policies, regulations, statutes, and other traditional documents, but certainly for complex processes and methods, especially where turnover was high. I was reinforced in this belief when in 1997 I presented a keynote speech at the American Society for Training and Development. (*Knowledge Management - Concepts and Tools*, National Conference, American Society for Training and Development, May, 1997.) I was preceded by Gloria Gery who was promoting a concept called Performance Support (PS). Performance support evolved from Electronic Performance Support Systems (EPSS), which she wrote about as early as 1989.

She defined Performance Support as "...an integrated electronic environment that is available to and easily accessible by each employee and is structured to provide immediate, individualized on-line access to the full range of information, software, guidance, advice and assistance, data, images, tools, and assessment and monitoring systems to permit job performance with minimal support and intervention by others."

Unfortunately, I don't believe she had progressed much further than a solid concept, and especially gaining the passion to push for that concept against existing interests of the training folks that wanted to avoid any change--especially something as radical as Performance Support. When she

saw my presentation, including actual examples of a KBase Tool, that did exactly what she defined as Performance Support, I recall she was ecstatic.

Here's what she saw. See Figures 9-1 and 9-2. Her perspective gave me confidence that I was on the right track, but in KM we had our own vested interests, i.e., the enterprise repository advocates and vendors. But, finally many are beginning to see the need to dig deeper.

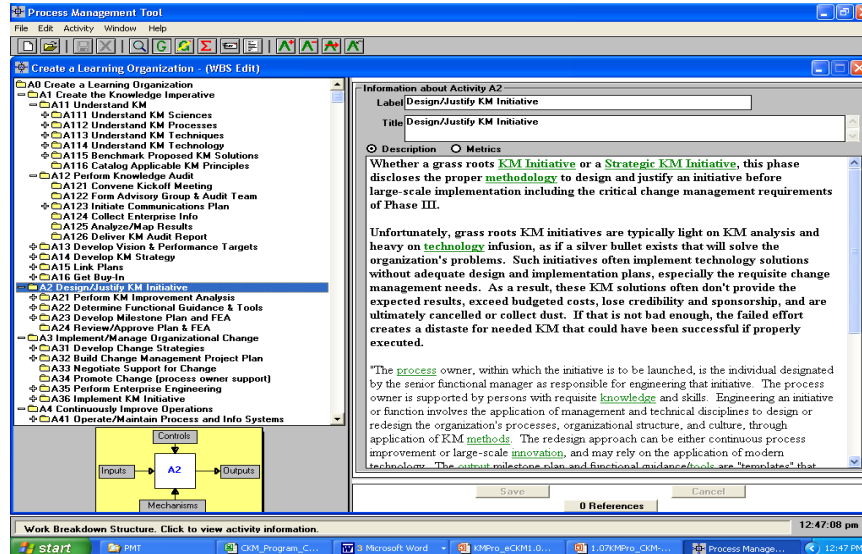


Figure 9-1. Screen shot depicts the original KBase Tool, with initial KM Methodology

This KBase design has three typical components that now seem universal, including an organizing scheme in the left-hand stub, and a description in the right-hand window, as seen in Figure 9-1. For a process-oriented KBase the categorization is typically a work breakdown structure (WBS) or roles. Each WBS activity has a corresponding description.

Obviously, the description is typically an insufficient level of knowledge, so the 'References' button, in the lower, right-hand corner, is typically invoked. It leads to the ultimate knowledge objects or nuggets seen next below (See Figure 9-2Figure).

The critical third key feature includes the actual Knowledge objects themselves, depicted in Figure 9-2, using what I thought to be a creative 'books of knowledge' metaphor. Each book has a particular type of knowledge labeled with both a title and an icon. Icons have emerged to be the more powerful visual approach versus text labels. In 1995, I knew the emerging research, but using clip art icons didn't seem fully adequate, so labels were added as well. The books were constant, but whether they had content varied. Grey scale books were empty.

Every variation of KBases I have seen since 1995 have included these three critical components: an organizing scheme (e.g., WBS or roles); a description of the selected activity; and, the ultimate knowledge nuggets. To be much more helpful, and to fulfill an ultimate KM objective which is to get the best knowledge to the right person at the right time, KBases will become inevitable, the tool that truly enables Performance Support.

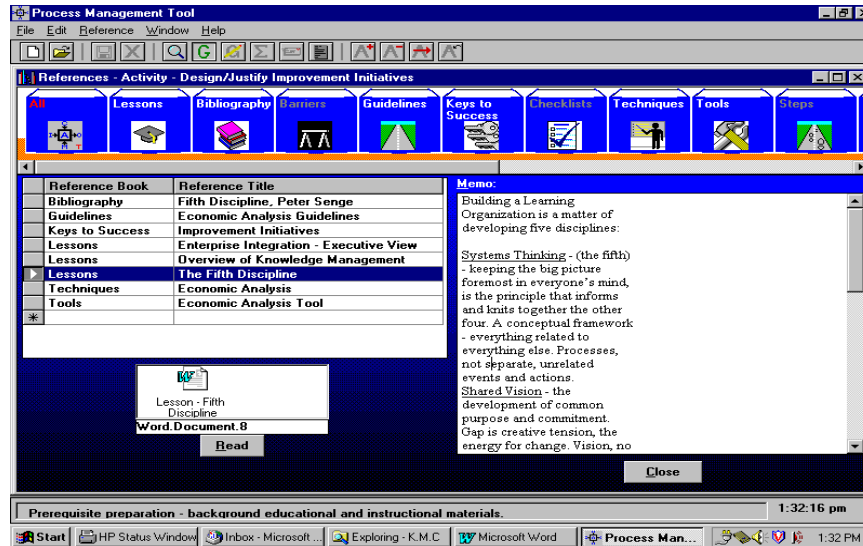


Figure 9-2. Screen shot depicts the functionality of the 1995 version of the KBase Tool

As an aside, I often get criticism today for still using what some think to be an obsolete metaphor – the Books of Knowledge. Metaphors can be very powerful. This one not only anchors the modern Knowledge Age effort to the primary and respected source of historical knowledge down thru the ages (books and libraries), but it focuses on the new Knowledge Age and resultant knowledgebase needs – “get the best knowledge...at the right time”, but with a modern digital format delivery, as well.

It further says to me, “The Knowledge Age has been a long time coming, but it is solidly anchored.” I like the metaphor and story it relates. You can decide that for yourself, but I think you see the need for much more granular knowledge in the Knowledge Age.

Prediction 2: KM Methodology

I predict we will move from ad-hoc frameworks and graphical roadmaps, certainly suitable for executive briefings and calls to action, but insufficient for detailed implementation guidance, to very robust KM Methodologies,

which will become a requisite for successful KM implementations across the globe as KM expands to every nook and cranny.

If you had a robust KM Methodology, it might look like the knowledge base representations in terms of breadth and depth. In addition to understanding the diverse uses of frameworks, roadmaps and especially methodologies, and the need for more evidence-based and robust methodologies, an even more important issue is the biases of today's alternative KM Methodologies. The primary KM methodologies being actually used are what I call "KM (as a) System Approaches." Let's understand why such methodologies are very popular, and why they have had mediocre success.

In my early days as a KM consultant, late 1990s, I was hard pressed to sell enough personal billable hours to justify my employment. Much of my work was to complement information technology presentations with KM briefings.

Such nominal, mostly non-consulting (marketing) efforts resulted in two outcomes.

- A few contracts were won based on our emphasis on KM compared to the more traditional IT consultancies. One such win was a \$325 million contract with NASA, where the contracting officer complimented us on our response to their contract requirement for innovative solutions, which of course KM enabled.
- But, more fundamentally, the spear metaphor applied. Specifically, a KM consultant provided a good inroad into a client—the point of the spear. But the consultancy's financial benefit, the shaft of the spear, was the big follow-on IT contract that often followed. So, it is not hard to understand why KM has been very IT oriented, i.e., originally enterprise systems such as repositories. Also, the most successful KM vendors in the early days-and even today, were those focused on enterprise-level systems.

My second KM Methodology prediction is not only that future KM methodologies will become much more rigorous, with proven evidence-based methods, but also the existing bias toward the KM Systems Approach will phase out in favor of a much more transformational KM Methodology. See Prediction #6.

Prediction 3: KM Maturity Models

I predict robust KM Methodologies will enable us to move from ad-hoc, traditional maturity models to evidence-based, predictive models, that are not just typical assessment tools (diagnostics), but will likely be powerful, prescriptive tools as well.

Here's a quick primer on maturity models: They were popularized in the late 1990s by the Software Engineering Institute's – Capability Maturity

Model (CMM)®. The United States government needed a way to pre-screen the hundreds of vendors that would compete on huge IT contracts. Why? Many just weren't qualified, no matter how elegant their proposal, to successfully execute the contract terms. Hence, the CMM® was an assessment focused primarily on consistency of process performance. It became a way to weed out those vendors which had a relatively higher likelihood of failure.

Because of the CMM® popularity, there was a burst of efforts in 1999 to develop a similar Maturity Model for KM. Examples: KM Maturity Model (KMMM)® by Siemens AG, KM Landscape by Microsoft, and my Knowledge Maturity Model (KMM)™, now an asset of the KM Institute. Quite frankly, most of the early maturity models were weak examples of what might be possible if the basis for each assessment was evidence-based vs. ad hoc.

But, in addition, consider going to the doctor's office to get a checkup. What if the doctor said here's what's wrong with you (diagnosis). Come back and see me next year. Would you be satisfied to have a diagnosis with no curative prescription? Probably not. Then why would we assess our own organizations if we couldn't simultaneously provide a prescription for renewed or continued good health?

By 2010, I believed we needed a tool that wasn't just an assessment (diagnostic), but could be enriched by the KM Methodology to provide a prescription as well (see Figure 9-3). Importantly, it doesn't merely address the health of KM, but other threads critical to overall health and prosperity that can be improved through KM and other evidence-based prescriptions.



Figure9-3. KM Transformation Solution™

It is not obvious from the spiral graphic-like roadmap, but there are a number of actionable threads being evaluated. For each thread at each level, one or more questions are asked. The answers are on a five-point Likert scale.

The multiple threads are determined by deciding on the most critical concerns of the organization under study. Barring such specific knowledge, the most important concerns for all organizations are in the generic model, which include: human capital, customer satisfaction, innovation, analytics, KM and transformational change management.

Obviously, without a robust KM Methodology, the high-level prescription couldn't be parsed into the many diverse recommended activities, such as: for human resources (HR), to get alignment and buy-in from HR; specifically to define ways to substantially improve engagement, develop a relevant KM training curricula, and the specific details on how to implement a Personal Knowledge Manager (PKM)TM certification strategy to improve personal performance in the Knowledge Age.

Prediction 4: Defined KM Competency Areas

I predict KM will mature from ill-defined, uncatalogued, and disparate KM efforts to defined KM competency areas. This will enable the development of university curricula, and a way to begin to meaningfully organize the many already-proven KM Initiatives into a viable discipline.

Many universities around the world have attempted to establish KM departments since the late 1990s. Many have, in my opinion, faltered for a number of reasons, including: 1) low numbers of potential students in the early years; 2) lack of instructors with diverse KM experience; and, 3) weak programs, certainly not of the rigor of established disciplines such as traditional MBAs might teach.

The noticeable press for better university programs started in about 2010, when the KM Education Forum (KMEF) was established by Kent State's KM Program, headed by Dr. Denise Bedford, now at Georgetown University, and by George Washington University (Washington DC), which was represented by Dr. Annie Green.

The goals were traditional for universities and the KM Institute; namely, to first define KM Team Roles, which included Knowledge Managers, Specialists and Practitioners, and Knowledge Workers, as well. Then, to define the skills and competencies required to perform those roles in the Knowledge Age. Once having defined roles and skills, competency areas follow and enable universities to create courses toward recognized diplomas, and for training firms to create training programs to enable rigorous and applicable certifications at various levels.

Here are the Competency Areas that derived from much work by leading universities seeking to establish their own KM programs, and as customized by the KM Institute for its certification programs.

1. **KM410 Series: Transformational Leadership & Strategy.** Transformational Leadership & Strategy is about: KM Frameworks, Roadmaps, KM Methodologies, Governance, Modern Maturity Models, and especially the KM Transformational Solutions, and more. *Enterprise Innovation* – This is a major transformation leadership sub-competency area. It includes tactical and enterprise continuous improvement methods, culture, and technology as well.
2. **KM420 Series: Knowledge Assessment & Evaluation.** Knowledge Assessment & Evaluation is about: Audits, Evidence-Based Analytics, KM Metrics, and more. Also, this area should comply with emerging standards for ISO 9001:2015 - standards for K Audits.
3. **KM430 Series: Culture & Communications.** Culture & Communications is about: Traditional Change Management (e.g., Awareness Campaign: Communication Plan & Learning Plan), Personal Knowledge Management (PKMgmt), and more. Also, this area should comply with emerging standards for ISO 9001:2015 - standards for Cultural Change Mgmt.
4. **KM440 Series: Collaboration & Communities.** Collaboration and Communities is about: K Sharing methods and optimization of social media tools such as: Expert Locators, Communities of Practice (CoPs), Social Network Analysis (SNA), and more. Also, this area should comply with emerging standards for **ISO 9001:2015** - standards for K use and sharing to achieve objectives.
5. **KM450 Series: Knowledge Asset Management.** Knowledge Asset Management is about: explicit knowledge - Knowledge Repositories, Taxonomy, Search, and more. See also KM495 Series: Knowledge Architecture. Also, this area should comply with emerging standards for ISO 9001:2015 - standards for K asset management.
6. **KM460 Series: Intellectual Capital Management.** Intellectual Capital Management is about: tacit K Capture, K Transfer and Retention, and more. Also, this area should comply with emerging standards for ISO 9001:2015 - standards for undocumented K capture and sharing.
7. **KM470 Series: Organizational Learning.** Organizational Learning is about: Performance Support, Rethink Learning (methods & technologies), and more. Also, this area should comply with

emerging standards for ISO 9001:2015 - standards for undocumented K capture and sharing.

8. **KM480 Series: K-Embedded Business Operations.** K-Embedded Business Operations is about functional KM initiatives rather than primarily enterprisewide ones. Specifically, it is about: Lessons Learned and Best Practice Management Processes, Customer Satisfaction, Process Management in the K Age (“Connect & Collect”), and more. Also, this area should comply with emerging standards for ISO 9001:2015 - improved project and process K use and sharing.
9. **KM490 Series: Knowledge Technologies.** Knowledge Technologies is about: Hard Disciplines – Build Apps, Deliver Technology Solutions, and more.
10. **KM495 Series: Knowledge Architecture.** Knowledge Architecture is about: Soft Disciplines – Info Architecture, People-centric Design Solutions, and more.

For a more detailed description of each Competency Area, see our website: www.kminstitute.org

I predict the KM industry will become much better organized, essentially becoming a discipline in the traditional, academic sense – actual KM degree programs in many universities and certification programs from proven commercial trainers. But, to become a respected discipline, KM will need robust methodologies and many more documented successes. In addition, in my opinion, KM will need to morph from a traditional discipline to a transformative one (#5 below), and from a technology focus to a clear emphasis on human capital (#6 below)..

Prediction 5: KM as a Transformational Discipline

I predict we will begin to consider KM as not just another improvement discipline (TQM, BPR, Agile, etc.), but in fact the major enabler of the requisite transformation necessary to operate effectively, and to be sustainable as a viable organization in what will be a very competitive, global Knowledge Age.

When I first started thinking of KM as transformative vs. just a discipline – early 2000s, I got major pushback. The resistance was particularly strident and understandably so, since many KMers were mostly fascinated with KM technology. I was downplaying technology by that time, as being closer to a commodity than the disruptive technologies and methods such as KM itself.

But, experienced change management experts who thought their discipline could cover all types of changes, found the transformative change

management approach to be foreign to them. Ironically, many change experts were fearful of the transformative change emphasis, or arrogant--especially about its implications for their traditional change management discipline. Here is an occasional challenge I get in KM Certification Program workshops, "I'm already a certified Change Manager. Your KM Certification touts much about change management, but what can you possibly teach me that I don't already know?" Here's the answer.

Transformational Change Management (TCM) – There are many major differences between traditional CM and transformational CM. Some might consider this an oversimplification, but the section below details the major differences between the two, of which there are many.

Traditional Change Management has a number of primary activities – five primary ones according to a Prosci study in 2011 - *Which CM levers do practitioners typically use?* (Prosci is an established change management trainer.) The primary activities include a Communications Plan (88%) and a Training Plan (76%). Sometimes both are combined and logically dubbed an 'Awareness Campaign'. Three other activities were only minor, in the 10 – 26% range of usage.

Consider how a traditional change management program might be launched for a typical KM technology solution – perhaps a portal-type repository or other enterprise-level system, maybe social media that supports communities of practice and an expert locator.

- **Traditional Communications Plan** – Once the portal was decided upon, the CM Team would start the design of a communications plan. The plan might be implemented either immediately, or closer to the actual system installation, depending on the timing gap between CM kickoff and planned implementation date. Communication initiatives can vary widely and may include announcement speeches often done by key executives, and other announcements such as Newsletters and always updates, etc., but does not include formal training.
- **Traditional (Formal) Training Plan** – Today, it is more typically called a Learning Plan, but the details are the same and quite obvious. The Learning Plan focuses on getting the folks who will be using the new system well trained before implementation. Timing is obviously a key issue as is adequate competence on the new system.

Transformational Change Management is probably best defined in John Kotter's series of books on change, which he started writing in the 1990s. (See source list of Kotter's books at the end of this chapter.)

- **Transformational Communications Plan** – The key communication differences compared to the traditional CM are in the critical need for much actual and personal top management

involvement. The KM Team, in conjunction and coordination with top management must create a communications plan that includes at least the following much more demanding needs than traditional CM. Specifically, these additional activities include: a motivating ‘Call to Action’; the need to create a ‘Sense of Urgency’ to accelerate action, and a “clear, compelling vision” as specific guidance; and finally, how to overcome resistors, often called ‘Get Buy In’.

- **Transformational Learning Plan** – In addition to specific training related to any early KM Initiatives, Transformational CM requires much more extensive training to educate all employees on the major disruptions being faced by our economy, how to overcome organizational complacency, and the desirability and feasibility of the new Knowledge-Age vision. In addition, I predict a whole class of certification courses focused on making marginally engaged knowledge workers into fully engaged, high-performing Personal Knowledge Managers (PKM)TM. This human capital prediction is covered next.

Prediction 6: Human Capital vs. Technology Focus

Finally, I predict major changes in KM focus, with an increasing migration from primarily technology-focused solutions, e.g., the KM Systems Approach as a methodology described above, to a much-needed focus on increasing human motivations and performance in the Knowledge Age. Humans will become the ultimate center of gravity for KM going forward, not technology. The gap between existing technology capability and what is essential to KM is small, compared to the gap between existing human performance and ultimate human potential in the Knowledge Age. (See source list on the whole host of diverse personal knowledge management books at the end of this chapter.)

There has been much, very convincing research, insights and conclusions in the last twenty years by the Gallup Organization and others. This branch of human capital research focuses on human engagement on the job. In general, humans across all job categories and nationalities around the world are only marginally engaged on the job. Typical results are max 25 – 30% engaged. Organizations with much higher levels of engagement inevitably beat the competition.

Fortunately, the Gallup organization not only uncovered very elegant ways to determine average engagement levels in an organization—an assessment tool of just twelve questions, but those questions have potentially, reasonably prescriptive outcomes as well. The Gallup human capital research diagnostic and prescriptive insights and guidance has been

incorporated into the Knowledge Maturity Model (KMM)TM described in #3 above.

Conclusion

Six bold predictions have been made and justified. Here they are in summary:

1) There will no doubt be an eventual shift from traditional repositories for content management to much more granular knowledge, housed in process-oriented **knowledge bases (KBases)**. That is, unless artificial intelligence accelerates rapidly and is applied to this ubiquitous KM need – to get the best knowledge to the right person at the right time. I see a compelling requirement right now, proven by call center operations and the rapid automation of all manner of decision support systems. KBases are best for tightly-defined applications, typically with one or more of these characteristics: complex or dynamic processes or those with high turnover..

2) More robust **KM methodologies** will soon emerge. They will replace the ad hoc frameworks and roadmaps that are insufficient for complex methodologies and process methods. KBases (with KM methodologies) will substantially improve KM performance, as well as the performance of all types of complex processes (process KBases), especially those with high turnover and steep learning curves, and especially those processes that need quick access to in-depth knowledge to help make decisions or solve problems.

3) The next generation of **diagnostic and prescriptive maturity models**, already available, will soon gain a foothold as powerful, evidence-based business improvement tools.

4) **Competency Area** definitions (including scope of roles and associated learning objectives) of KM will soon reach a reasonable consensus. This will accelerate university course and program creation toward KM, especially an MBA in KM. The role of Chief Knowledge Officer (CKO), especially if leading an organizational transformation, cries out for a rigorous MBA in KM.

But, such programs must be at a reasonable, cost-justified price and have above average convenience, considering the concurrent workload of a CKO. Most traditional universities will have trouble with the traditional marketplace, including price competition, product offering and convenience.

Considering my personal experiences, perspectives, and even potential prejudices, I somewhat cautiously predict there will soon be a major disruption in the academic marketplace in general and in KM programs in particular.

A unique MBA in KM may be amongst the first disruptors as the Master CKM certification (**MCKM**) converges on and even overlaps the ideas,

philosophies and content of the traditional MBA. Except certification programs have one major competitive advantage for practitioners – a major focus on being able to do, not just to understand. Keep an eye on the KM academic community, and about to be disrupted academic marketplace.

5) KM as not just another improvement discipline, it is the natural response to the current episodic shift in human occupations, which itself is prompted by substantial automation potential of most all means of menial, repetitive work in all quarters. Today, this is no longer speculative. General purpose robots operate at lower per hour costs than cheap Chinese labor. So, consider--are future factories going to be built in regions with just low-cost labor, or are a new class of Knowledge-Age executives, with transformational intentions, going to seek regions with both an educated and highly motivated work force--that can leverage low-cost computers and production and delivery innovations (make and move) to be price and quality competitive anywhere?

and finally,

6) For historic, developed-country lifestyles and wealth creation to survive well into the 21st century, humans must focus on the well-documented gap in human performance--between past performance and actual human potential. High-performance humans, partnered with robots, drones and artificial intelligence (AI), will be more than competitive with production anywhere. This might very well be the future of innovation.

Welcome to the Knowledge Age!

I hope my personal perspective on the history of KM, and my six KM predictions, will help you navigate successfully the Knowledge Age, especially including the proven objectives of substantially improved human and organizational performance.

ABOUT THE AUTHOR

Douglas Weidner is a U.S. Air Force Academy graduate and past combat pilot. He has an MBA in Business Economics and an MS in Operations Research. He's been a consultant in diverse, analytical fields: Operations Research, Financial Analysis, Strategic Planning, Total Quality Management (TQM), Business Process Re-engineering (BPR), and change management.

He has been fully involved in KM since its proverbial beginning, when as a US Department of Defense (DoD) think tank consultant (1994), he designed a "Knowledge Base Tool" (KBase), which ultimately housed DoD's BPR Methodology in 1995-6.

About then, KM began to appear over the horizon; hence our KM Institute (KMI) logo.



He almost immediately recognized the major episodic event that was emerging. Convinced that KM was to have a major impact on all human occupations, as did the transformations to the Agrarian, Industrial and Information Ages; he started to consult full time in this new discipline.

In 1995 he actually had a real KM job and title as Chief Knowledge Engineer. His initial consulting was primarily for DoD, including creating an early KM Methodology--housed on the DoD's KBase Tool. Subsequently, he consulted for many of the large and earliest KM initiators -- DoD (1995 -- 2001), various U.S. Government Agencies, the World Bank 1995 and UN 1999. He trained/consulted for other global organizations, including: Islamic Development Bank, African Development Bank, Aramco and most international petroleum companies, US-AID and many others (2001 -- 2017).

But more than those consulting and training activities, which certainly shaped his early KM perspectives, he claims he learned more about KM from teaching and researching for about 10,000 certificants, primarily Certified Knowledge Managers (CKMs) in all types of organizations, starting in 2001.

He founded KMI to do KM certification training; it is now the dominant global provider for all core KM Team roles, especially the Certified Knowledge Manager (CKM), Specialists (CKSs) and Practitioners (CKPs) and for Knowledge Workers as Personal Knowledge Managers (PKM)TM.

He serves now as KMI's Executive Chairman; as Chief CKM Instructor he launched the KMI's Train-the-Trainer Program to establish a global network of local CKM Trainers/consulting partners.

Also, he just established the KMI PressTM to provide expanded publishing ability to all KM experts--affordable KM books and the KM Institute's KM Body of Knowledge (**KMBOK**)TM. In 2018, he will author and edit the **"Knowledge-Age Transformation Series**. It will include

many diverse transformational and futuristic KM topics, such as those predicted in this chapter. Douglas can be contacted at douglas.weidner@kminstitute.org, or through the KM Institute at www.kminstitute.org.

RECOMENDED RESOURCES

Recommended Transformational Change Management Books

All by John Kotter: on Transformational Change Management, especially “A Force for Change”, “Leading Change”, “A Sense of Urgency”, “Buy-In”, and “Accelerate” 1990-2014.

All by Malcolm Gladwell: “Tipping Point-How Little Things Can Make Big Difference”, “Outliers”, “Blink”, “David” 2000-2012.

All by Peter Drucker: “Post-Capitalist Society”, “Knowledge Management for 21st Century”, 1993, 1998 and many others.

All by Clayton Christensen, “Disrupting Class – How Disruptive Innovation Will Change the Way the World Learns,” 2008 and many others.

“DIY-U – Coming Transformation of Higher Education,” Anya Kamenetz, 2010

“Learning to Fly,” Collison & Parcell, 2001, 2004

“Thinking for a Living: How to Get Better Performances and Results from K Workers,” T. Davenport, 2005.

“The Wisdom of Crowds – Why the Many are Smarter than the Few and How Collective Wisdom Shapes Business, Economies, Societies, and Nations,” by James Surowiecki, 2004.

Recommended Personal KM (PKM)TM Books – Know Yourself.

Malcolm Gladwell: “David and Goliath: Underdogs, Misfits, and the Art of Battling Giants,” 2013. See also: “Tipping Point”, 2000, “Blink” 2005, “Outliers” 2008, and “What the Dog Saw” 2009.

“Quiet – The Power of Introverts in a World that Can’t Stop Talking,” Susan Cain, 2013.

“The 7 Hidden Reasons Employees Leave – How to recognize the Subtle Signs and Act Before it’s too Late,” Leigh Branham, 2012.

“Thinking Fast and Slow,” Daniel Kahneman, 2011.

Marcus Buckingham: “First, Break All the Rules: What the World's Greatest Managers Do Differently,” 1999. “Now, Discover Your Strengths,” 2001. “The One Thing You Need to Know...About Great Managing, Great Leading, and Sustained Individual Success,” 2005. “Go put your Strengths to Work,” 2007.

- Daniel Pink: “Drive – Surprising Truth about what Motivates Us”, 2009.
“A Whole New Mind – Why Right-Brainers Will Rule Future,” 2006.
- “Mindset – The New Psychology of Success – Why attitude is as important as talent,” Dr. Carol Dweck, 2006.
- “Stumbling on Happiness,” Daniel Gilbert, 2005.
- Stephen Covey: “7 Habits of Highly Effective People: Powerful Lessons in Personal Change,” 2004. “8th Habit: Effectiveness to Greatness,” 2004.
- Martin E. P. Seligman: “Authentic Happiness: Using the New Positive Psychology to Realize Your Potential for Lasting Fulfillment,” 2002.
“Learned Optimism: How to Change Your Mind and Your Life,” 1998.
- “How People Learn – Brain, Mind, Experience, and School,” National Research Council, 2000.
- “Why We Do What We Do – Understanding Self-Motivation,” by Edward Deci, 1995.
- “Flow: The Psychology of Optimal Experience,” by Mi Csikszentmihalyi, 1990.
- Daniel G Amen, M.D., “Making a Good Brain Great,” 2005. “Magnificent Mind at any Age,” 2008. “Change Your Brain, Change Your Body,” 2010.

WHERE IS KM GOING?