Wisdom Management: ECKM 2007-2017 review

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1.1 Abstract

Based on articles and findings suggested a decade ago, this paper proceeds to a critical review of Knowledge Management (KM) and its evolution to what we may agree to call Wisdom Management (WM). What have happened in this area during this period (2007-2017)? Is Knowledge Management still alive? Is there truly an evolution towards Wisdom Management? What signs can be detected in the market? Is technology sensitive to this context? What are the opinions of the various authors in this discipline? Can we venture a new forecast? This paper aims to consider all these issues. Paper begins by offering some context (Introduction) and then it details the tenets originally defended and the forecasts presented at the European Conference on Knowledge Management (ECKM) in 2007. Once establishes this groundwork, paper proceeds to consider an overview of this period (Reflections on a Decade). Although the time frame in question is only about 10 years, it has been a very significant period for Knowledge Management. This paper analyses differing views—from the decline of the practice and its diminishing popularity to voices that claim that the concept has reached its social "maturity". It also analyses trends witnessed in Knowledge Management and Technology and review the popularity of Wisdom Management and the current trends of all these issues. Finally, in the Conclusions section, the paper reflects on the accuracy of forecasts made a decade ago and ventures to offer new forecasts confirming or diverging from previous ones.

The paper faces mainly two predictions made in 2005 and presented at ECKM 2007: a) a new cycle of technical expertise in organisations will emerge (2010's) and b) we must prepare for another management cycle (2020's?) based on wisdom.

This is just an opinion paper; it is not intended as a formal investigation.

1.2 Keywords

Knowledge Management (KM), Wisdom Management (WM), Information and Communication Technology (ICT), Artificial Intelligence (AI)

1.3 Introduction

In the 2007 ECKM held 10 years ago in Barcelona, I made a presentation entitled "Wisdom Management: the last frontier". In my speech I followed up on another article I published in 2005 entitled "Knowledge Management: The last frontier?" At ECKM 2007 I had already overcome the "question marks" of 2005 (as reflected in the title) and had opted to accept the conclusions reached earlier: Wisdom Management must replace Knowledge Management. However, despite this alleged "evolution", at ECKM 2007 I started my speech with the following sentence:

Is Knowledge Management merely a fad or something much deeper?

In this paper I aim to reflect on the same issue, focusing on a wider time period. The first thing that comes to mind is that the phrase might still be valid, might still raise doubts, or might still be a starting point for discussion, generating passionate debates. I do not have the slightest doubt: Knowledge and its management are still at the forefront.

What is it about knowledge that has kept it in the limelight of the Management stage for so long?

I think the answer is obvious because Knowledge is everywhere: it is a component in what we experience at all times and what we want to experience, in our everyday thoughts, in what we have learned and what we want to learn, in what we teach, write, speak and even what we do—knowledge permeates everything. And it is becoming increasingly easier to articulate and disseminate knowledge. And there is more and more knowledge at our fingertips. And it is increasingly important to make an optimised use of that knowledge. And the knowledge we need changes at a faster pace, becoming obsolete and having to be replaced by more knowledge. It's a relentless cycle. And most importantly: Knowledge underpins each of our decisions and our success depends on the quality of our knowledge.

So this was the state of affairs in 2007 and still is in 2017, without going into statistics and popularity rankings. This state of affairs—with all probability—is here to stay. In this situation, Knowledge and its Management remain important and the use we make of that knowledge is what will determine whether or not we act with Wisdom and consequently whether or not we focus our action towards personal and social good.

1.4 ECKM 2007

The distinctive analysis factor in the aforementioned presentation at ECKM 2007 had to do with technological developments. In summary form, we can state that the popularisation of Knowledge Management has to do also with new information and communication technologies (ICT). These new information and communication technologies allow us to store part of our knowledge in digital format so we can save, manipulate and disseminate it easily and quickly on a large scale. They allow us to systematise endless processes. But this was not always the case. Early computers only processed data, then they processed information and now they are on the brink of processing knowledge, i.e., able to take decisions, non-binary decisions, i.e. decisions based on inputs from many events. And in this path from simplicity to complexity, Artificial Intelligence will be a guiding force.

We have taught machines to process data, information and knowledge in cycles of alternating dominance between management and technology, as illustrated by the table below. How the current ICT scenario has developed and how we believe it can evolve (see Figure 1).

ICT cycles, presented at ECKM 2007 (original text in 2005 article)

DECADE	EMERGING CYCLE	NAME FOR RESPONSIBLE	RESPONSIBLE INITIALS	TYPE OF CYCLE	EMERGING PROFILE	MACHINE PROCESSES MANKIND TEACHES
70-80	Computer Science	Electronic Data Processing Manager	EDP	TECHNICAL	Programmer	Machine Processes Data
80-90	Information Management	Manager of Information Systems	MIS	MANAGEMENT	Analyst	Mankind Teaches Information
90-00	Information & Communication	Information Technology Manager	IT	TECHNICAL	Technical Systems	Machine Processes Information
00-10	Knowledge Management	Chief Information / Knowledge Officer	CIO (CKO)	MANAGEMENT	Consultant	Mankind Teaches Knowledge
10-20	¿? Artificial Intelligence	¿? Intelligence Technologies Mng.	¿? AIM	TECHNICAL		Machine Processes Knowledge
20-30	Wisdom Management	Wisdom Manager ?	WM	MANAGEMENT		Mankind Teaches Wisdom
30-40	¿?	¿? Wisdom Manager The last Frontier?	¿? WM	TECHNICAL		Machine Processes Wisdom ¿?

(Figure 1)

The 2007 remarks were triggered by the following questions: How will machines make decisions? These decisions are going to go beyond simple and transparent algorithms and will most likely include complex algorithms and repositories steered by Artificial Intelligence (AI).

The first question to ask ourselves is how will decisions be made? On the basis of which data repositories? How will we ensure that the digital world includes all significant stakeholders who may be involved in a decision? The second question would be what principles or criteria will be associated to this decision making? Machines reproduce human behaviour and our decisions are based on our knowledge (data/information) subject to principles (value criteria). Will this be the same when machines are taking decisions by themselves?

1.5 Insights on a decade (2007 - 2017)

1.5.1 Starting point

Let's first try to understand the 'state of the art' of Knowledge Management at the outset of the decade. The cyclical dominance of certain concepts is obvious that suffer oscillations. And it is also obvious that these cycles can be staggered over time across North America, Europe and South America. Trends, technologies and fashions do not occur everywhere at the same time or with the same intensity, although it is true that in an increasingly connected world this synchronisation is growing. This awareness should serve us to contextualise and cross-reference our respective situations.

The decade (2000-2010) began very strong for Knowledge Management (products, events, conferences, etc.), but by 2007 something was changing. If we accept Gartner's prognosis (Gartner is one of the most influential figures in the ICT world), Knowledge Management had reached its maturity. It was therefore excluded from the Gartner Hype Cycles (HC), which analysed elements and tracked their evolution within a particular discipline or environment. These were Gartner's arguments regarding KM in 2007:

> "*After at least a decade of scrutiny and development, Knowledge Management (KM) has achieved a level of maturity whereby it should no longer appear in Gartner's Hype Cycles. KM is something you do, not something you buy. The technologies that enable KM will continue to emerge and mature*".

> "*We believe that the KM concept has matured sufficiently and gained enough enterprise penetration that it has moved well into the Plateau of Productivity and therefore off the Hype Cycles. KM is mentioned in over 20 of our Hype Cycle reports, another indicator that KM has become a mainstream practice in core business processes*"

> "*KM covers a wide variety of activities. Many organisations take steps to manage their intellectual assets without necessarily calling the steps KM. It could include programs to protect and exploit intellectual property (IP), such as patents and copyrights. Other organisations will encourage communities of interest (…) capture best practices. (…) Whether explicitly labeled KM or not, these are all examples of the widespread adoption of the concept*"

> (*Gartner, August 31, 2007 ID Number: G00151237*)

Knowledge Management had reached its maturity, but maybe the market had worn out the name and the concept no longer excited us. From this point on, the decline of this nomenclature was clear. A significant example of this (in addition to its disappearance from Gartner's Hype Cycle) was a fragment of a talk between experts Larry Prusak (Director of the Institute for Knowledge Management - IKM), Dave Snowden (founder and chief scientific officer of Cognitive Edge) and Patrick Lambe (founder and Principal Consultant of Straits Knowledge). Held on 2008, they talked regarding the subject "Is KM Dead?" (The discussion is still available at http://www.greenchameleon.com/gc/blog_detail/dead_km_walking/). The video of the three experts speech was widely passed around during the 2009 MAKE Awards event (Most Admired Knowledge Enterprises) at the Sao Paulo Conference, in a context where organisers were debating the future of KM (MAKE is currently organized by The Know Network - http://www.knowledgebusiness.com).

Maturity or decline? Perhaps neither. In my view, precisely in line with Gartner's Hype Cycle, Knowledge Management had reached its maximum visibility (blown-up expectations) when its tangible solutions were still underdeveloped and it had not reached its "plateau of productivity". This gap would inevitably result in disappointment. (Figure 2)
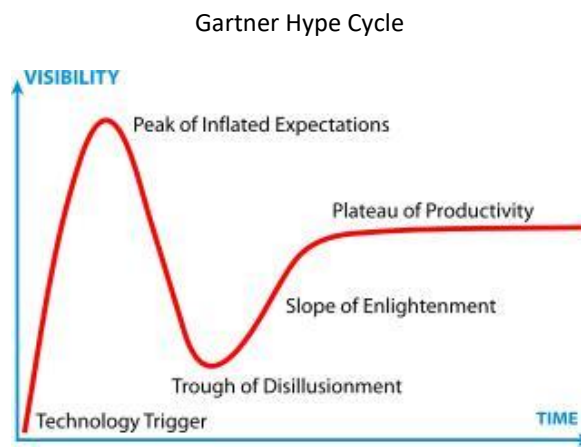
Gartner Hype Cycle

Figure 2

1.5.2 Knowledge Management

Despite its bipolar starting point, in 2007 Knowledge Management still enjoyed some popularity and a prolific stream of publications, especially academics. It had also become a course taught in various disciplines and university master's degrees. I taught KM classes in some of these Barcelona Universities during this decade (UAB, UOC and UPF). However, in the market—especially ICT—it continued to run out of steam. Why?

Modern Knowledge Management has had mainly two branches: the so-called Eastern and Western lines of thought (Sveiby, 2001). The Eastern branch stresses tacit knowledge and despite significant previous contributions, like "*Mobilizing Invisible Assets*" (Itami, 1991), Ikujiro Nonaka and Takeuchi Hirotaka are considered the parents of this approach thanks to their work: "*The Knowledge-Creating Company*" (1995). In the other hand, the Western branch, in our cultural backyard, underscores explicit knowledge and gives technology the important role of articulating this knowledge. This technology is also very volatile. In its early days, Knowledge Management became very reliant on documentation systems (record and recovery). Subsequently, it was associated with Corporate Portals (access) and with Community Management (communication, socialisation), etc. always keeping pace with advances in technology. Technological development was sold as Knowledge Management and when it became commodity, the concept faded because it did not include much else—in terms of theory, methodology, strategy, indicators, integration, etc. And so, slowly, the Knowledge Management concept for the most part died out from the market, tangentially rescued as an element of certain methodologies in the ICT world (CMMI, eSCM, ITIL).

1.5.3 Technology

In terms of technology, by 2007 we had consolidated distributed systems, networks and communications. In the ICT environment, leadership gradually passed from the IT Manager (in the 90s) to the role of the CIO (Chief Information Officer) with a stronger management profile and—to a much lesser extent—the role of CKO (Chief Knowledge Officer). If current (2017) technological realities were perceived, they were still embryonic: drones, IoT (Internet of Things), cloud, 3D printing, big data, block chain, advances in mobile technology, and the development of apps (the first app store was made available to the public in July 2008). All this developed in parallel to the already complex developments of more common ICT aspects: databases, architectures, software systems or security. All this new complexity led to the birth of the ICT Architect and CTO (Chief Technological Officer), reporting to the CIO or not.

Technology thus continued advancing on many fronts and adding new features, some of which allowed the emergence of a new Knowledge Management, to which some companies, such as APQC (American Productivity & Quality Center https://www.apqc.org/), are deeply committed. Some of these technologies, which can set off a second wave of Knowledge Management in the market, are social media, analytics, cognitive computing, machine learning, etc. and all technologies associated to Artificial Intelligence (Palowitch, 2016), including Robotics of course.

We will continue teaching computers new tasks associated with the human intellect, delegating aspects such as facial recognition, voice recognition and even mood recognition (aggressive, nervous, etc.). Since the dawn of time, human progress involves magnifying our own capabilities (microscope, telescope, speaker, memory, etc.).

1.5.4 Wisdom Management

We will refrain from delving deep into definitions, but we could say that Wisdom is "the highest degree of knowledge", understood as the ability to use such knowledge "soundly and prudently". This approach is consistent with the well-known scheme which states that through information we understand relationships (context), through knowledge we understand patterns and through wisdom we understand principles. These principles, based on our knowledge, allow us to act wisely.

We have always spoken of wisdom and knowledge in non-technological issues, but today for the first time we can see it slowly making its way into the management of a technological world. Nevertheless, in both the 2007 and 2017 ECKM, only my paper, among hundreds, contains the word *wisdom* in the title. Although this, there are some signs for hope. Proof of that can be two publications—a decade apart—which reflect a certain presence and dynamic of the concept in their content and references. In early 2005, an extensive article from the University of Queensland analyses aspects of Wisdom Management (McKenna & Rooney, 2005). In 2014, researchers from three Turkish universities (Ekmekçi et al. 2014) publish a conceptual study on Wisdom Management which, although doesn't mention the former, does include an extensive list of more current references. We can also cite, as an additional example, the current activity of the Center for Practical Wisdom at the University of Chicago (http://wisdomresearch.org/), showcasing the new academic presence of Wisdom Management.

But including the concept in the management arena does not appear to have been at all easy. See part of a discussion in 2008 on "Wisdom Management" in a Knowledge Management website (http://www.greenchameleon.com/gc/blog_detail/wisdom_management/):

> "*Dave Snowden in characteristic fashion believes that wisdom management pundits should be taken out and shot. Yet others say they would never have imagined themselves delivering services in managing "knowledge", so why should it not become possible for wisdom?*"

Although somehow this discussion could still be valid, there is little wisdom in the words of Snowden, a KM guru... regrettable. By contrast, this decade has witnessed something that has been extremely significant. It happened only three years after the above discussion and will definitively tip the scales in favour of Wisdom Management: the 2011 publication of an article entitled *The Wise Leader* (Nonaka, I. and Takeuchi, H.). In this text, the most influential authors on the subject, the very fathers of modern Knowledge Management, Nonaka and Takeuchi, brandishing their old KM icon, literally say as follows:

> "*Today's Knowledge-creating company, we believe, must metamorphose into the wisdom-practicing company of tomorrow*"

That's it, Wisdom for Management! Wisdom for Social Progress! Wisdom for Humanity! This is our commitment, our goal!

1.6 Conclusions

Consistent with the theory of alternating technical/management ICT cycles (coinciding so far with natural decades), the 2007-2017 decade can be considered a transition between two of these cycles and therefore dual in nature. It begins with a consolidated Management reality, represented by the CIO figure, and ends with the also consolidated CTO figure, evidence of a new technical reality.

Thus, the first prediction made in 2005 and presented at ECKM 2007 about "the emergence of a new cycle of technical mastery in organisations" over the 2010-2020 decade, has been confirmed. However, the link with Artificial Intelligence (AI) is not as strong as originally expected. Nevertheless, AI has advanced and substantiates the evidence for our second prediction: the Wisdom Management cycle should follow—in terms of management—the Knowledge Management cycle. At ECKM 2007 I said:

> "*In other words, they (machines) will arrive at 'conclusions' as a result of gaining access to a vast amount of information regarding an event, a person, a family or a company. But, what will the criteria for reaching conclusions be? Will they be based on the economic interests which motivate the vast majority of organisations and governments eager to collect taxes, etc.? Will the repository of information which will be used as a basis for these criteria be biased information that these organisations would have obtained from transactions with individuals within a particular relationship, without due regard, in conflictive situations, for a personal point of view?*"

As I'm writing these concluding remarks, the Barcelona-based newspaper *La Vanguardia* publishes news like the following, which only serve to reinforce the impending fulfilment of the second prediction, i.e., the need for Wisdom Management to prevent malpractice related to content and criteria that machines can use and apply. Two examples taken at random:

> 29/March/2017 Headline: *"Robots are already leaders and make smart decisions.*" Subtitle: "*Some companies have opted for artificial intelligence to plan and guide their workers*."

> 28/March/2017 Headline: "*Artificial intelligence curtails trolls, but also freedom of expression*" Subtitle: *"The same programs being used to reduce the impact of trolls (...) are used by governments to censor critical content*".

These are small symptoms of what is coming our way. Technology, inspired by authoritarian criteria, runs the danger of skewing existing content in order to present a deliberately biased view of the world. This is where Wisdom needs to prevail, to use knowledge "soundly and prudently". This is the challenge of the "Wise Leader" (Nonaka & Takeuchi). The conversion of the fathers of Knowledge Management to Wisdom Management is the single greatest argument that the second prediction is coming true: Wisdom Management is our next management cycle and a need for the much-desired social harmony of the world—a revolution of principles and conscience.

I sincerely believe that this revolution has already begun. I think people have a growing awareness of Principles and Human Rights. This is true in spite of current partial setbacks such as the Trump government in the US, wars in the Middle East, the refugee crisis and the rise of the extreme right in Europe, famine in Africa, Asia arms race, power of drug cartels in Latin America, etc. We should know how to overcome all this with wisdom.

Wisdom Management also spells a major economic paradigm shift. It means that social progress does not depend on the amount of knowledge, but on how we use the knowledge available. We must ask ourselves if our lives have improved in the same proportion as our products (TVs, cars, telephones, motorcycles, computers, etc.). Why not? I think the answer is simple: we work competitively so that some products succeed and a few business leaders get richer. And the major segment of population, just survive under the big pressure of this system. It's a vicious circle. We should work with "*collaborativeness*" towards social progress: a virtuous circle. If we can think it, we can do it.

I will conclude this article with a new forecast. We could say—speculatively—that organisations will cease being responsible for new technological complexity, which will fall back to specialised companies. Outsourcing, the Cloud, standardisation and subcontracting in general out will provide services to organisations and disentangle them from their increasing complexity. These organisations should also base their management on common values which society is increasingly demanding and controlling. Nowadays this is addressed—in embryonic form—by small Corporate Social Responsibility departments which sometimes manage mere tips from the company to society, at large, to boost its image. In the efficient and successful company of the future, these values will have to be coded into its very corporate DNA and its employees' ethic, applicable across the board in all departments and bolstered by an attitude of respect for the principles that make us act wisely.

Finally, I would like to end with the same words I wrote in 2005 and presented at ECKM 2007:

"After the Information Management cycle (1980-1990) and the Knowledge Management cycle (2000-2010), the Wisdom Management cycle (2020-2030?) should be marked by ethical business and social practice, where knowledge and innovations deployed not only benefit the company in particular but are useful to humans and the Earth in general. Knowledge should serve to improve the world, not to dominate it. Knowledge and goodness should lead us to the era of Wisdom."

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