Knowledge-information autopoietic cycle: towards the wisdom systems

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Abstract: Decision-making processes are characterised by purposeful coordination of interrelated activities of pre-decision, decision and post-decision stages. In this sense, human decision-making processes require explicit knowledge generation, enhancement and renewal. So far the areas of decision-making have remained mostly free of knowledge and knowledge management, process orientation and autopoiesis and self-producing cycles in general. Yet, in this paper we move further ahead. The transition from information to knowledge is still going on and much remains to be accomplished, but the next transition – from knowledge to wisdom – is already taking shape. We formulate clear, unambiguous and pragmatic definitions and distinctions of knowledge and information, establish simple and natural measures of the value of knowledge and describe the knowledge-Information autopoietic cycle A-C-I-S and its circulatory nature in managing knowledge of the enterprise. Then we elaborate on the future evolution of knowledge management by discussing the outlines of wisdom, wisdom systems and the contours of the Wise Enterprise.

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1   Introduction

The decision-making process is loaded with important process related questions. *What* is to be decided and *by whom*? *How* is the process of decision making to be carried out? *Why* is a given decision accepted and implemented?

In the pre-decision stage, we gather unbiased, objective *information* about the problem: what is to be decided, when and by whom, what is the definition of the problem, its context and its scope. We collect data and search for information. Pre-decision stage is the *information stage*.

During the decision stage we engage in the *process* of decision making. We compare and evaluate alternatives, evolve decision criteria, weigh their importance and eliminate the unnecessary data. We *coordinate* all these activities towards the purpose of identifying a course of action, decision or problem solution. This is the *knowledge stage* of the process, depending on *how* we carry out decision-making activities and how we achieve our purpose. The first paper on Knowledge Management (KM) has already appeared in 1987 (Zeleny, 1987).

In the post-decision stage, we attempt to explicate and justify the decision, trying to answer *why* we prefer it and why we want to implement it. We gather additional information in the post-decision stage, preparing for the next decision-making cycle, (for the next decision). This is the *wisdom stage* of the decision-making process.

Information, knowledge and wisdom stages are natural manifestations of quality decision making. We want to know *what*, *how* and most importantly, *why* decision-making activities have been carried out.

In this paper we concentrate on outlining the foundations of this kind of thinking about information, knowledge and wisdom, and underline their importance in the future of decision making.

2   Process thinking and knowledge

- Knowledge is *action*. This is also echoed in Polanyi's 'All knowledge is tacit' (Polanyi, 1966). There is no 'explicit' knowledge, only information.

- Knowledge is *consensually social* and without a social context there can be no knowledge.

- Although the 'given' of sensory data and experience remains absolute, its classification and *its relation to other things* is relative to a given context of experience *and* intended action.

Knowledge cannot be separated from the process of knowing (establishing relationships). Knowledge and knowing are identical: *knowledge is process*.

What is meant when we say that somebody knows or possesses knowledge? We imply that we expect one to be capable of coordinated action towards some goals and objectives. Coordinated action is the test of possessing knowledge. Knowledge without action is a reduction to simple information or data. Maturana and Varela (1987) put it very succinctly: *All doing is knowing, and all knowing is doing*.

Clearly, 'explicit knowledge', repositories of data and information (data banks, encyclopedias, expert systems) are only passive recordings, descriptions of knowledge. Only coordinated human action, i.e., the process of corelating such components into coherent patterns, which turn out to be successful in achieving goals and purposes, qualifies as knowledge.

This sentiment is also resonated in Ravn (2004), where Ravn introduced the term 'action knowledge' – in the tradition of Danish action research. Humans know whether they are able to engage in activity in a purposeful and coherent way, whether this activity is carried out physically, enacted in a social context, spoken as words or expressed through the activity of thinking. Knowledge is defined as coordinative structures (concepts, categories, distinctions, images, etc.) that guide human action towards purposes.

A person is knowledgeable not because he has a *stock* of passive mental structures, images or causal links of an object or process, but because his very movements and thoughts (his action) are so coordinated as to achieve a desired outcome.

This is why experts in mere 'information management', the 'storage people', have not succeeded in transforming smoothly into more substantial 'knowledge management', and thus become 'action people'. Information is not knowledge and knowledge is not a part of IT.

Among the myriad possible postulated relationships among objects, only some result in a coordinated action. Every act of knowing brings forth a world. We 'bring forth' a hypothesis about the relationships and test it through action; if we succeed in reaching our goal–we know.

Bringing forth a world of coordinated action is human knowledge.

Bringing forth a world manifests itself in all our action and all our being. Knowing is effective [i.e., coordinated and 'successful'] action.

Knowledge as an effective action enables a living (human) being to persist in its coordinated existence in a specific environment from which it continually brings forth its own world of action. All knowing is coordinated action by the knower and therefore depends on the 'structure' of the knower. The way knowledge can be brought forth in doing depends on the nature of 'doing', as it is implied by the organisation of the knower and his circumstance (working environment).

3 Definition of knowledge

Clear, unambiguous and operational definition of knowledge is essential and without it the field of KM, initiated in 1987 (Zeleny, 1987), cannot progress in either theory or practice.

Based on the preceding philosophical foundations, we can advance the simplest possible definitions for the purposes of effective KM (Zeleny, 1987, 1989a, 1989b, 2000a).

Knowledge is purposeful coordination of action.

The quality and effectiveness of achieved purpose is the evidence (and measure) of knowledge.

Information is the symbolic description of action.

Any action, past, current or future, can be described and captured through symbols. All such descriptions are information. All those rules, formulae, frames, plans, scripts, and semantic networks are information, not forms of knowledge. It is not a set of rules or a formal representation of knowledge (i.e., information) that is critical to intelligence, but rather the mind's coordination of the body's experiences and actions, i.e., knowledge.

Knowledge is rooted in each individual's actions, behaviour and experiences and therefore partially embedded in the process that is being coordinated.

The differences between knowledge and information are significant, qualitative and striking – as the differences between action and its description should be. I know because I do. I have information because I describe.

There can be *too much information* (information overload) but there can never be *too much knowledge*: There is no knowledge overload.

Information is only *one of the inputs* in the process of coordination. Knowledge is coordination itself. There can be too many inputs, but coordination can only be better or worse. Information can be correct or incorrect, right or wrong, true or misleading. Knowledge can only be more or less effective.

Knowledge is *always gradual*, from less to more (effective). In this sense, it is not correct or incorrect: it is not an input.

Knowledge refers to the processing of inputs through coordination of action. The *rules of coordination* (sequences, patterns, levels of performance), derived from experience, observation, consensus or social prescription, are characteristic of knowledge, not of information. What these rules are and how they are they followed are among the determinants of forms of knowledge.

- *Skills*. If the rules are *internally* determined and controlled by the subject, we speak of skills. Skills can be validated by the action's outcome only. There is no need for social sanction or approval of the rules. Robinson Crusoe has skills as all autodidacts have skills. Neither of them has knowledge.

- *Knowledge*. If the rules adhered to are established *externally*, in a social context and in the context of validation, then we can speak of knowledge rather than skills. Knowledge is recognised and validated socially. (One cannot say 'I know' – unless one is an autodidact (amateur or dilettante) and thus self-exempt from the rules. Only others–family, community or society – can testify to one's knowledge.) One cannot claim knowledge without proper social validation.

- *Expertise*. If the external rules are mastered and performed at a *socially respected* level, and if the actor can reflect upon the rules with respect to their improvement or change, then knowledge becomes expertise. An expert gains socially sanctioned power over the rules so that they no longer need to be obeyed. Expertise is an acquired ability to change the rules.

Observe that the difference between skills and knowledge is not based on the outcome. A skilful person can sometimes achieve a better outcome than a knowledgeable person, but will not equally socially recognised and valued. Skill is based on the outcome only. Knowledge is based on both the outcome *and* the process leading to it. Expertise is masterful knowledge and cannot grow out of skills.

While skills, knowledge and expertise are all related to *know-how* – how to achieve a given or stated purpose, or to *know-what* – how to state or select a purpose to be pursued, the notion of *wisdom* is related to *know-why*.

Knowledge is related to both *efficiency* (know-how) and *effectiveness* (know-what) while wisdom is related to *explicability* (know-why). Having information is far from being knowledgeable. Being knowledgeable still does not imply wisdom.

One can be knowledgeable without being wise. Many use information and follow given rules efficiently: they acquire dexterity and become *specialists*. Others choose their goals and change the rules with the approval of others – and become *experts*. But even the masters of rules and purposes are not wise if they cannot satisfactorily explain *why* particular purposes, rules or courses of action *should* be chosen or rejected.

Wisdom is socially accepted or experience-validated explication of purpose.

Enhancing human wisdom, pursuing practices and systems that are not only efficient or effective, but also wise, i.e., building wisdom systems is the next frontier of the long and tortuous progression from data and information to knowledge and wisdom.

It is useful to first expand on the notion of communication.

Communication is closely related to both knowledge and information. Conventional wisdom would weaken the usefulness of the concept of communication by including any information transfer in its domain.

We communicate with each other through language. Language is a system of symbolic descriptions of action. We exchange these symbolic labels (information) in order to coordinate our action and modify behaviour. When such coordination or modification occurs, we communicate. When it does not, we just transfer information.

Communication occurs when the result of a particular exchange of information (e.g., linguistic labels) is the coordination of action (doings, operations) or modification of behaviour.

Clearly, language is *not* a system of communication, yet communication occurs through language.

What is the difference between action and behaviour? *Action* is the result of deliberate decision making (Zeleny, 1982) within new contexts and circumstances. *Behaviour* is a habitual or automated response to repeating circumstances within a known context. Both are affected by communication.

Communication is action, enabling exchange of information.

4   Natural measure of knowledge

Knowledge must be measured in a simple, natural way, not through a complex artificial formula or construction.

Based on the definition of knowledge as the purposeful coordination of action, one can derive a natural measure of knowledge as a *value attributed to coordination*.

Knowledge is neither intangible nor abstract and it is *not difficult* to measure. Knowledge produces very tangible outcomes of real value to the approving society. Information, as a *description* of action, may be difficult to measure – it has no tangible outcome per se. The value of information is intangible, unless it becomes an input into measurable action, i.e., knowledge. Action itself (knowledge) is eminently measurable because its outcomes can be observed, measured and valued.

Knowledge is measured by the value that our coordination of effort, action and process adds to inputs of material, technology, energy, services, information, time, etc.

Knowledge is measured by added value.

Value of any produced item, product or service, is a combination of purchased or otherwise externally or internally acquired inputs, work and labour (coordinated performance of operations constituting the process). This value has to be socially recognised and accepted; by the market, by the purchaser, sponsor, peer group, community, family and so on. If nobody wants my product then it is irrelevant how many inputs, how much time and effort I have expended. My knowledge has no value.

If somebody pays for my product (in money or in kind) then its market or social value has been established. To derive the *value of knowledge*, we have to correct the value of the product by *subtracting all* (including information) external and internal purchases (their market value) or used and otherwise valued acquisitions. In the corporate setting, we also subtract operating cost and general administrative cost.

As a result we obtain added value (to inputs) or added value per hour or worker. Such conceived added value is due to action or process, its performance and coordination. There are three components to added value: labour, work and coordination.

One has to pay wages for labour (performance of externally coordinated operations) and work (internally coordinated operations). In addition, one has to pay salaries for any employed coordination services. Observe that both wages and salaries can only be covered from the added value. Labour, work and management are not (or should not be) inputs, but forms of coordination and performance of the process. If no value has been added, no payment of wages and salaries can be sustained.

'Work' can be defined as economically purposeful activity requiring substantial human coordination of task and action. 'Job' designates the kind of work that is performed contractually, that is, explicitly for remuneration and in the employment of others. 'Labour' (often used as a synonym for hard work or toil) can more properly be related to performing simplified work-components or tasks without engaging in their substantial coordination towards given purposes. Work often involves labour but not vice versa. Work involves coordination of tasks while labour relates only to their performance. After we subtract the cost of labour (considered material output), from the added value, what remains is the value of the knowledge applied to the process.

Added value measures knowledge, the contribution of coordination of action through work and management.

The *relativity* of the value of knowledge is clear. The same expenditure of coordination effort, time, skills and work can have great value in one context and no value in another. The same level of knowledge can have great value in New York and no value in Prague – and vice versa. All knowledge is relative and its value is derived from the context of its application. This is why knowledge cannot be measured from inputs and through apriori expenditures of time, effort and skills. Knowledge is not primary but secondary, a derived category, derived from the value of its outcome. The amount of knowledge does not determine the value of its outcome, but the value of the outcome determines the value of knowledge applied.

No amount of information, duration of study, hard work or dedicated effort can guarantee the value of knowledge. All such effort has to be socially accepted and sanctioned, its value affirmed and validated. Otherwise it can be wrong, misplaced, unuseful and unvalued – regardless of the effort.

In education we mostly acquire information (description of action), not knowledge (action itself). We study cookbooks but rarely learn to cook. Information is necessary and potentially useful, easy to transmit. But *information is not knowledge*.

In a world of global communications and information sharing we are rarely going to be paid for having information and more often for knowing, for being able to coordinate action successfully (pay for knowledge). The value of education rooted in information is going to decline; *education for knowledge* is going to rise.

In this context, it becomes apparent that confusing information with knowledge is rapidly becoming counterproductive. After reading hundreds of cookbooks, I am still not a viable chef. I still do not know how to coordinate action, my own or others. After reading hundreds of textbooks on management, I am still not a manager. I still do not know how to manage enterprise, my own or of others.

One of the cruelest outcomes of education is instilling the feeling that information *is* knowledge in unexperienced novices. Studying a description of action does not guarantee knowledge of action.

This is why even the oxymoronic connection 'explicit knowledge', implying that somehow a symbolic description is some sort of 'knowledge', is not only confusing and unscientific, but also damaging and fundamentally untrue.

Witness Sveiby (1999): "All knowledge is either tacit or rooted in tacit knowledge. All our knowledge therefore rests in the tacit dimension" or Polanyi (1966): "Knowledge is an activity which would be better described as a process of knowing." So it would be. To know is to do.

The field of KM has to abandon its initial cycle and leap forward to its roots.

5 Knowledge-information circulatory system

It is important that knowledge and information become interconnected in an integrated, mutually enhancing system of autopoietic self-production cycle.

Clearly, there is a useful connection between action and its description, between knowledge and information. While knowledge management should include information management, information management cannot include knowledge management. Process can include its inputs, but no single input can include its process.

Knowledge produces more knowledge with the help of intermediate information. The purpose is to produce more knowledge, not more information.

In order to do that effectively, we have to integrate knowledge and information flows into a *unified system of transformations*. It is insufficient, although necessary, to manage, manipulate, mine and manage data and information. It is incomplete and inadequate to manage knowledge without managing its descriptions. It is both necessary and sufficient to manage integrated and interdependent flows of knowledge and information.

Purpose of knowledge is more knowledge, not more information.

Useful knowledge is codified into its recording or description. Obtained information is combined and adjusted to yield *actionable* information. Actionable information forms an input into *effective* coordination of action (knowledge). Effective knowledge is then socialised and shared, transformed into *useful* knowledge. In short, the cycle

Knowledge → Information → Knowledge

can be broken into its constituent transformations:

- *articulation*: knowledge → information

- *combination*: information → information

- *internalisation*: information → knowledge

- *socialisation*: knowledge → knowledge

These labels are due to Nonaka (1991) and Reinmoeller (2004) exploring transitions of knowledge: tacit to explicit, Articulation; explicit to explicit, Combination; explicit to tacit, Internalisation; and tacit to tacit, Socialisation. They are not separate dimensions and should not be separately treated.

The above sequence *A-C-I-S* of knowledge and information flows is continually repeated in a circular organisation of *knowledge production*.

Every enterprise, individual or collective, is engaged in two types of production:

- production of the other (products, services), *heteropoiesis*

- production of itself (ability to produce, knowledge), *autopoiesis*.

Production of the other is dependent on the production of itself. Any successful, sustainable enterprise must continually produce in itself, its own ability to produce, in order to produce the other, its products and services. Production, renewal and improvement of knowledge to produce are necessary for producing anything.

Knowledge production (production of itself) has traditionally been left unmanaged and uncoordinated. The focus used to be on the product or service, on 'one or the other'. In the era of global competition, the omission of knowledge management is no longer affordable. Knowledge production leads to sustained competitive products and services but not the other way around. Even the most successful products do not guarantee sustained knowledge base and competitiveness of the enterprise.

The A-C-I-S cycle is concerned with *autopoiesis* (Zeleny, 1980), the production of itself. Traditional management is focused on its products and services, while neglecting its own continued ability to produce requisite knowledge for their production. Therein lies the imperative for knowledge management in the global era: information is becoming abundant, more accessible and cheaper, while knowledge is increasingly scarce, a valued and more expensive commodity. There are too many people with a lot of information, but too few with useful and effective knowledge.

A-C-I-S cycle. We can now characterise all four essential transformations in greater detail:

- *Articulation*: transformation (knowledge → information) is designed to describe, record and preserve the acquired, tested and proven-only, effective knowledge and experience in a symbolic form of description. All such symbolic descriptions, like records, manuals, recipes, databases, graphs, diagrams, digital captures and expert systems, and also books, 'cookbooks' and procedures, help to create *symbolic memory* of the enterprise. This phase creates the information necessary for its subsequent combination and recombination into forms suitable for new and effective action.

- *Combination*: transformation (information → information) is the simplest as it is the only one taking place entirely in the symbolic domain. This is the content of traditional information management and technology (IT).
  It transforms one symbolic description into another, more suitable (actionable) symbolic description. It involves data and information processing, data mining, data warehousing, documentation, databases and other combinations. The purpose is to make information actionable, a useful input into the coordination process.

- *Internalisation*: transformation (information → knowledge) is the most important and demanding phase of the cycle: how to use information for effective action and for useful knowledge. Symbolic memory should not be passive, information just lying about in libraries, databases, computers and networks. Information has to be *actively* internalised in human abilities, coordinations, activities, operations and decisions – in human action. Only through action does information attain value, gain context and interpretation and–connected with the experience of the actor – become reflected in the quality of achieved results.

- *Socialisation*: transformation (knowledge → knowledge) is related to sharing, propagating, learning and transfer of knowledge among various actors, coordinators and decision makers. Without such sharing through the community of action, knowledge loses its social dimension and becomes ineffective. Through intra- and inter-company communities, markets, fairs and incubators, we connect experts with novices, customers with specialists, employees with management for the purposes of learning through example, practice, training, instruction and debate. Learning organisation can emerge and become effective only through socialisation of knowledge.

The A-C-I-S cycle is continually repeated and renewed on improved, more effective levels through each iteration. All phases, not just the traditional combination of IT, have to be managed and coordinated *as a system*.

Circular knowledge and information flows are stimulated, coordinated and maintained by a *catalytic function* of Knowledge Exchange Hub (KEH). This KEH functions under the supervision of the KM Coordinator who is responsible for maintaining the four transformations A-C-I-S.

For the first two transformations, Tuggle and Goldfinger (2004) developed a partial methodology for externalising (or articulating) knowledge embedded in organisational processes. Any such externalisation produces useful information (Desouza, 2003). It consists of four steps.

- A process important to the organisation is selected.

- A map of the selected process is produced (by specifying its steps and operations and identifying who is involved in executing the process, what are the inputs and the outputs).

- The accuracy of the *process map* needs to be verified.

- We examine the process map for extracting the embedded information: What does the process reveal about the characteristics of the person executing the process? What about the nature of the work performed? What about the organisation in which this process occurs? Why is this process important to the organisation in question? What benefit (added value) does the process contribute to the organisation?

There are two forms of information extracted from the process mapping. The first extraction produces information about process structure while the second extraction produces information about process coordination. By producing a map of the process, a symbolic description of action, one extracts information about the process. The second extraction works with the process map directly (extracting information from information), i.e., shifting into Combination of A-C-I-S. It describes properties about the agent conducting the process; insights regarding the steps carried out in executing the process, and reveals comprehension about the communications going on during the execution of the process.

This methodology involves only the A-C portion of the A-C-I-S cycle. The all important stages of Internalisation and Socialisation are not yet addressed. This incompleteness is probably due to the Nonaka (1991) induced habit of treating the dimensions of A-C-I-S as separate, autonomous and independent. *They form an autopoietic cycle and cannot be separated*.

A-C-I-S cycle has *autopoietic organisation* (Zeleny, 1980, 1981, 2000b), defined as a network of processes of:

- *Knowledge production* (*poiesis*): the rules governing the process of creation of new knowledge through Internalisation of information.

- *Knowledge bonding* (*linkage*): the rules governing the process of Socialisation of knowledge within the enterprise.

- *Knowledge degradation* (*information renewal and replenishment*): the rules associated with the process of transforming knowledge into information through Articulation and Combination.

All three types of the A-C-I-S constitutive processes must be well *balanced* and functioning *in harmony*. If one of the three types is missing or if one or two types predominate (out-of-balance system), then the organisation can either be heteropoietic or allopoietic, i.e., capable of producing only 'the other' rather than itself. In Figure 1, such general organisation of an autopoietic system is displayed:

Figure 1   Circular organisation of interdependent processes and their 'productions'
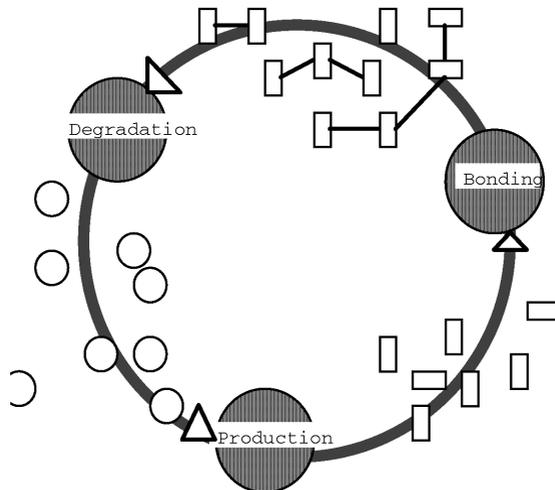
Any self-sustaining system, like the Knowledge-Information cycle, will have the processes of production, bonding and degradation concatenated in a balanced way, so that the production rate does not significantly exceed the replenishment rate, and vice versa. *Self-sustaining systems will be autopoietic in an environment of shared or common resources;* such a business enterprise would resemble a living organism rather than mechanical machinery.

Autopoietic knowledge systems, in spite of their rich metaphoric and anthropomorphic meanings and intuitions, are simply networks characterised by *inner coordination of individual actions achieved through communication among temporary member-agents.* The key words are coordination, communication, and limited individual life span of members. Coordinated behaviour includes *both cooperation and competition*.

So we, as individuals, can coordinate our own actions in the environment only if we coordinate it with the actions of other participants in the same, intersecting or shared network. In order to achieve this, we have to inform (change) the environment so that the actions of others are suitably modified: *we have to communicate*. As all other individuals are attempting to do the same, a *knowledge network of coordination* emerges, and, if successful, it is 'selected' and persists. Such a network then improves our ability to coordinate our own actions effectively. Cooperation, competition, altruism, and self-interest are inseparable. *Business enterprise and its knowledge become the living organisation.*

Any self-sustainable system must secure, enhance and preserve communication (and thus coordinated action) among its components or agents as well as their own coordination and self-coordination competencies. Systems with limited or curtailed communication can be sustained and coordinated only through external commands or feedback; they are not self-sustaining. *Hierarchies of command are sustainable but not self-sustaining.* Their organisation is machine-like, based on processing information, not on producing knowledge.

We have established that consensual (unforced) and purposeful (goal-directed) coordination of action is knowledge. Self-sustainable systems must maintain their ability to coordinate their own actions – producing *knowledge.* Self-sustaining systems must be knowledge producing, not only information, labour or money consuming entities.

6   Toward wisdom systems

The motto of the Fordham University is *Sapientia et doctrina*, expressing the commitment to the discovery and diffusion of *wisdom and learning*.

Wisdom does not necessarily have to remain a vague and mostly experiential philosophical construct. It can become, like knowledge, a well defined object of study and practice among informed, knowledgeable and self-aware enterprises.

'Wisdom systems' project (WSP) is a new term representing a new concept. WSP refers to the next stage of evolution after KM (Knowledge Management). Management systems have witnessed cumulative progression from *data* processing, through *information* technology, to current *knowledge* management. *The next step is wisdom.*

Corporations can be *informed*, they can be *knowledgeable*, but in the global era they also must become *wise*. *Wisdom of enterprise*, its definition, taxonomy, achievement and use are the purposes of WSP.

Because of the global economy, corporate wisdom itself has to be global. Wisdom traditions of the East have to be effectively blended with the pragmatic wisdom of the West in order to yield a truly global corporate support product. Although the term *wisdom* is laden with substantial and significant philosophical meanings, our aim is not philosophical, but pragmatic, practical and useful. We want wisdom to become – like knowledge and information – a manageable resource for corporate *efficiency*, *effectiveness*, *explicability* and *ethics*.

What is the relationship of wisdom to more operational concepts of data, information and knowledge?

In Table 1 we highlight the distinctions between data, information, knowledge and wisdom. The evolution of business concerns did proceed from data processing to information management, and recently towards knowledge management (KM). We are now ready to initiate the next step: evolution towards wisdom.

What is wisdom?

Its place in the evolution of business support can be appreciated in the following Table 1:

Table 1   Progression toward wisdom

	Technology	*Analogy (baking bread)*	*Effect*	*Purpose (metaphor)*
Data	EDP	*Elements*: H_2O, yeast bacteria, starch molecules	Muddling through	Know-nothing
Information	MIS	*Ingredients*: flour, water, sugar, spices + recipe	Efficiency	Know-what
Knowledge	DSS, ES	Coordination of the baking process $\rightarrow$ result, product	Effectiveness	Know-how
Wisdom	WS, MSS AI	Why bread? Why this way?	Explicability	Know-why

Our concern, clearly, is the last row of the above table: *the Wisdom row*.

While information allows us to do things right (efficiency), knowledge already aspires to also do the right things (effectiveness). Doing the right thing, especially in business, requires not only knowing how but also knowing why. *Explicability* of purpose is an essential ingredient of its effectiveness in attainment. *Wisdom is about explicability*.

Wisdom is therefore not about 'Because I can' or 'Because it is there' or 'Because I must' – the traditional explanations of the unwise.

Many informed people know what to do, quite a few knowledgeable experts know how to do it, but only a few *wise persons* know and can fully explicate why it should be done.

7 The art of asking why

In the global era there is – and necessarily will be – an abundance of information (being rocketed incessantly and digitally around the globe) and knowledge (tapping the immense global pool of knowledgeable people and institutions).

Wisdom however, the *knowing why* things should or should not be done – locally, regionally and globally – is and will remain in short supply. Wisdom is not practiced purposefully, it is not taught at schools and management systems are not effectively supported by the notions of explicability.

Asking Why is fundamentally different from asking How. Traditional Know-how is becoming globally insufficient and will have to be complemented by Know-why.

Why is the Why so important?

Whenever we explore a coordinated process in the sense of What or How (What is to be done, how sequenced, how performed, etc.) we already accept and fixate the process. The process is becoming *a given*, subject to learning or mastering, but not subject to exploration or change.

It is only when we start asking Why (Why to do it at all, why this operation and not another, why this sequence, etc.) we question the very structure of knowledge (coordination of action) and introduce the possibility of change. The Whys and the Why-nots are the most important questions in business and management and they should not be taken as given.

In the global economy, frequent or continuous strategic change will become the norm of competitiveness. Doing the same given thing better and better (continuous improvement) will be inadequate for strategic success. One has to *do things differently* (not just better) and *do different things*, not just the same ones. That important mode of strategic thinking cannot be learned and mastered by asking How, but only by asking Why.

8 Wisdom based strategy

One of the main implications of the wisdom focus is the realisation that strategy – the art of knowing why – should be based on knowledge rather than information, rooted in action rather than its symbolic description, and supported by the continuous Why-Cycle of exploration, action and explication. The role of strategy in the global era is explicated by Sahay et al. (2004).

Strategy is not about statements but about action. Traditionally, organisation executives prepare a set of statements, descriptions of future action: mission, vision, set of goals, plan or pattern for action and similar descriptors. All such statements are nothing but information. It all remains to be translated into action. And that is where most organisation executives stumble.

They are conditioned to ask How, how to do it, but rarely exhibit the wisdom of Why. Why should this or that statement be translated into action? More importantly: Why not? What should we *not* change and why? Only then can an effective strategy emerge from what is unchangeable, what is being done, from what we are doing already.

All executives can write statements, but they cannot 'do' them – the action is elsewhere, carried out by others. All the statements, from mission to plan are 'above the cloud line'. Executives do not see from the high clear skies of information down into the confusing reality of knowledge. So, it does not work too well.

Yet, executives should act from wisdom (Why?) and knowledge (How?), not from statements and descriptions (information) of What to do.

Strategy is about what you do, not about what you say you do or desire to do. Strategy is about action, not about description of action. Strategy is about doing, not about talking about it.

Your strategy is what you do. And what you do is your strategy.

All the rest is words.

All organisations do and so all organisations have strategy, whether or not they realise it.

Executives have to stop managing information through issuing statements and start managing knowledge through coordinating action. There are no strategic, tactical and operational levels: everything takes place below the cloud line, separating information from knowledge. Everything useful is also operational. How to go about it?

- One has to create a detailed map of corporate activities to find out what the company is doing, reveal its own strategy. Remarkably, many corporations do not know what they do, do not know their own strategy. They only know what they say, their own statements.

- After creating an activity map, one has to analyse the activities by benchmarking them with respect to competitors, industry standards or stated aspirations.

- Value-curve maps are created in order to differentiate one's activities from those of competition. *Differentiation*, *not imitation*, is the key to competitiveness and strategy.

- Selected activities are changed in order to fill the spaces revealed by value-curve maps as most effective for successful differentiation.

Through wisdom systems, through exploring our actions via the Why Cycle, we can effectively change our action, and thus our strategy, without ever leaving the action domain. Our strategy remains what we are doing, even though we are doing something else. There is no need to implement or execute our 'strategy' (set of statements) – it has already been enacted.

Executives 'execute' their strategic statements. Their strategies are hard to execute. They are probably created 'above the cloud line', far removed from the doing, and should not be executed at all. Their effective (forced) execution is likely to damage the corporation and its strategic resilience.

Strategic management is all about doing, producing and creating. How do we produce knowledge, capability, core values, alliances, and networks? Wisdom management is about asking 'Why' about all of these–*about knowing why* to apply what you know.

Therein lies the new promise and challenge of Wisdom Management.

9   Conclusion

In this paper we have explored some promising categories related to human decision making. The decision making process is not about mechanically selecting the best action from a given set of alternatives. Such calculation, with single or multiple criteria, is the simplest and the easiest part of the decision-making story.

What to decide, How to decide and Why to decide are much more important and decision making has to move from information to knowledge and even more importantly from knowledge to wisdom.

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