Integrated Knowledge Management

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ABSTRACT

In this paper the author presents the inception of Integrated Knowledge Management (IKM). Knowledge management is entering its new stage, after the delays of its “definitionless”, IT-based period, when knowledge got confused with information, losing thus two decades of fruitful development. Although there now is a significant information overload, killing productivity, creativity and innovation, there can never be any knowledge overload. Knowledge is fundamentally different from information. The integration of data, information, knowledge and wisdom into a coherent and unified management support is necessary for effective transformational IKM support systems. The author draws the necessary distinction between information and knowledge and show that although it is difficult to measure the value of information, the value of knowledge can be measured simply and effectively: by the metric of added value. Several quantitative examples of knowledge measurement are also given. Once people learn how to measure knowledge, the value of the inputs of data and information can be derived. The space is thus opened for integrated knowledge management. Integrating data mining, information processing, knowledge management and wisdom attainment into a unified support system is a prerequisite for effective management in the post-crisis era of socio-economic transformation.

Keywords: Added Value, Data Mining, Enlightenment, Exformation, Information Overload, Integrated Knowledge Management, Integrated Management Support, Knowledge Management, Knowledge Measurement, Wisdom

INTRODUCTION

Who is this that darkeneth counsel by words without knowledge?

Job 38:2

In 1987, a paper entitled “Management Support Systems: Towards Integrated Knowledge Management” was published (Zeleny, 1987). The notion of Integrated Knowledge Management (IKM) is more than twenty years old.

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The need for [data -information – knowledge – wisdom - enlightenment] integration is now greater than ever before (Zeleny, 2005, Zeleny, 2006a, Zeleny, 2006b). In the meantime, numerous strains of knowledge management have been pursued (and abandoned), but fruitful integration of knowledge has not occurred yet. It could be that the prevailing mainstream of KM conceptual development has not sufficiently differentiated between information and knowledge: in fact, knowledge became a label for information, like explicit knowledge,
while knowledge itself has been relabeled as *tacit knowledge* all by Nonaka (1991), taking it into the realm of intangibility, out of the reach of useful measurement.

It is our current purpose to show that knowledge is very tangible and its value is eminently measurable, while the value of information remains difficult to assess, unless it becomes embedded in action (knowledge) as one of its inputs. Only then information attains value, measured indirectly through the value of knowledge (added value of the product of coordinative action). All the rest is *exformation*, i.e. extraneous, unused, stand-alone information, attaining its value only through some TV encyclopedic quiz, like *Jeopardy*, and being better handled by a machine program like IBM *Watson* than by humans.

Knowledge has now become the key source of competitive advantage. The failures of knowledge management (KM) of the past two decades can be traced to the following list of several paradigm-intervening factors:

1. Absence of useful, operational and measurable definition of knowledge, resulting from its confounding with information, has led to undifferentiated and unsustainable, IT-based mislabeling of knowledge (Carr, 2003; Carr, 2004; Zeleny 2001; Dawson, 2005). Information is not knowledge.
2. Knowledge itself continues to be approached as a separate, context-free concept (Kazuo & Nonaka, 2006), not properly integrated with data, information and wisdom for the purposes of management/coordination support.
3. No useful measure of knowledge has been developed and so the field of KM was discredited in practice and its advancement slowed down considerably.
4. Meaningless classification of knowledge into tacit and explicit – before defining knowledge itself – has driven a generation of well-meaning young researchers into the intellectual *cul-de-sac*.
5. Modern management and decision making is increasingly plagued by information overload and a massive exformation build-up. Yet, there can be no knowledge overload.

**INFORMATION OVERLOAD**

As information becomes commodity, the information technology and communications revolution generates significant information overload and, as a consequence, attention fragmentation, poor decision making, loss of creativity and innovation as well as declining productivity. While information overload becomes a scourge of modern business, there is never any knowledge overload.

The need to shift the focus from information to knowledge has never been stronger: knowledge can hardly become commodity and there can never be “too much” of it. It would be pointless to shift from information to another form of information – even if labeled as knowledge. It does not matter what we call it, the only thing that matters is the real difference between knowledge and information, i.e. between action and its description. Knowledge can exist only as action and information has no existence outside description of action.

Consider the torrent of e-mail and huge volumes of other information (and exformation), from mobile telephones to blogs, tweets, and social networks. Humans cannot (and should not) keep pace with the information flowing incessantly towards them. The whole organization’s productivity can be affected by information overload, and no single person or group can address it effectively. *Information addiction* and clogging of communication arteries becomes a new scourge of business efficiency and productivity. The solution is not more and better information processing, powerful devices and dedicated multitasking, but a renewed focus on knowledge production.

Constant exposure to the deluge of new information does not make people more creative. It makes them anxious, harried and stressed. Stress hormones bring in *information addiction*. *Watson-type programs* can help in
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