E-Knowledge

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INTRODUCTION

Change is driving the new millennium along many paths. There is one particular place where the change is especially deep, and that is the path in which knowledge is heading. However, this is not always perceivable and it takes an act of detachment to appreciate it. The same is happening with the main cause of that change, which is technology: it is so much a part of our daily life, that we are no longer aware of it.

Contemporary *digital* media and *digital* technologies, that is, the most innovating front of ICT, have a characteristic: they reciprocally function as triggers, giving way to sudden waves of adoption, which in turn start others, all much more rapid and frequent than in the past. We are flooded, often unwillingly, by storms of technological stimuli: even though we may not be conscious of them, the result is an empowerment of our faculties of action, communication and cognition.

The term "e-knowledge" has been coined, as several others of similar structure, to catch, via the "e-" extension (*electronic*), the new shape of knowledge which is peculiar of a deeply technology-driven world. In such a world, *technes* (re. technology) is no longer "the art of making" and it becomes the "art of knowing".

The impact of technology on knowledge is remarkable. Diana Laurillard (Head of the e-Learning Strategy Unit, U.K. Government) notes in a book that we shall discuss, that there is a case for "*a debate about epistemology—when the knowledge technologies change so radically, they change not just what we know, but how we come to know it*" (Laurillard, 2003).

E-knowledge is knowledge made to rise through technology-intensive processes, marks a break from tradition. It is no more a matter of formal learning, coded facts pulled from the tree of a carefully compiled Dalembertian encyclopedia. It develops a different perspective, inspired by constructivism, where the classical hierarchy—knowledge owner above knowledge recipient—is undone, allowing the emergence of a protagonist that is no longer the *sapient*, but the *knower*.

Knowledge management schools, for a decade at least, have provided us with enlightenment about the nature of knowledge, showing the virtuous methods that enterprises should adopt to transform human capital into corporate advantages and progress. But e-knowledge has an ampler reach than the business domain, which is the realm where the influent scholars of the past decade had placed it (Nonaka, Toyama, & Konno, 2001). It concerns the "social" individual in its entirety, in any environment and belonging to any class. The individual is a subject at the center of actions that metabolizes into knowledge the mass of information flowing by.

HISTORY

The term "e-knowledge" is a neologism that is making inroads into our culture. In the same way as the coinage of certain scientific terms in the life sciences had the effect of determining the direction of research in that field (Fox Keller, 1996), so it has been for this word. Its creation can be seen as a "performative" act, where the word is not valued for its descriptiveness, but for its effectiveness. It is in fact succeeding in modeling our current and future vision of knowledge.

Those who coined the term are a group of experts, Donald Norris, Jon Mason, and Paul Lefrere, authors of the book *Transforming e-Knowledge, A Revolution in the Sharing of Knowledge* (Norris, Mason, & Lefrere, 2003a). A set of well-known and respected figures in the fields of education and strategy (SCUP, 2006), they (NM&L for short), will be our main reference. We will complement their thoughts with those of other authors, speaking to us from diverse domains, because the issue of knowledge crosses all disciplines.

There is a particular worth in NM&L's writings. They are the fruit of collective thought, the result of a consultation among many international experts with different skills. These people met and worked to find an answer to a crucial issue:

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How individuals and organizations needed dramatically to enhance their capacity to acquire, assimilate, and share knowledge, given the constant pressure of disruptive change. (Norris, Mason, Robson, Lefrere, & Collier, 2003b, p. 26)

NM&L's kind of answer is a very valuable one: a programmatic document, with strong propositions. Beyond the wealth of facts, references and intuitions, the answer we find in *Transforming e-Knowledge* is: "use the new technologies, they are essential in order to innovate and share." There is also the incitement to demystify the complexity of knowledge and to overcome the "provincialism" of academic knowledge (aggressively defined "*a 'cottage industry', the purview of isolated craftspeople and professional guilds*").

NM&L have a sharp perception of the role of technology:

Mobile, ambient technology is changing the dynamics of how we will live, work, and learn. Such technology environments will revolutionize everything about the "knowledge experience": place, use of time, nature of interfaces, intensity of engagement, reliance on just-in-time knowledge and agents, ability to multi-task, and the amenity of the knowledge experience. These new experiences will shape behaviors, practices, and social groupings for knowledge sharing. (Norris et al., 2003a, p. 1)

APPROACHING E-KNOWLEDGE

How does knowledge get to us? To address this question, open since the Sophists' time, we shall answer here but with an essential schema.

In line with NM&L's thinking, with Brown and Duguid's elegant and profound work "*The social life of information*" (Brown & Duguid, 2003) and with strategist Shedroff's key essays (Shedroff, 1994), we shall put knowledge and e-knowledge next to each other and show the transition from one concept to the other.

Knowledge vs. E-Knowledge

Using a conceptual schema we can think of knowledge as an intermediate ring, or node, in a representation of a *value chain,* that involves other concepts:

data → information → *knowledge* → wisdom

Data, large unshaped heaps of items of different sorts, are the resource that we use to communicate. However, as Shedroff remarks (ibid., p. 3), data are "boring" because they have no consequentiality and, if "left to themselves", have neither interest nor value.

Data to which an organization has been applied, or which are the object of a presentation, or in which a pattern has been identified, acquire meaning and become *information*.

We arrive at knowledge though experience, social interaction and with the help of our intuition. Knowledge is not transmitted (it is information that is transmitted). Applying a constructivist paradigm, then, "*Knowledge is information that is presented within a particular context, yielding insight on application in that context, by members of a community*" (Norris et al., 2003a, p. 2).

Wisdom, at the far right in our representation, can be interpreted as a sublimation of knowledge, a kind of metaknowledge (Shedroff, 1994), and a deep personal insight. It cannot be shared and one reaches it substantially only though oneself.

At the moment when, metaphorically, the *digital revolution* strikes, there is an effect (see Figure 1) that starts from the data side: data become "digitalized" and the effect propagates forward. Information now takes on a more meaningful connotation, becoming "content", with reference to the many multimedia formats now possible. The "passage" from "information/content" to what we now label "e-knowledge" becomes enriched by numerous paths and acquires a great flexibility. The entire knowledge ecosystem (thus we call the set of balancing entities and intervening paths in the illustration) becomes animated with reactions and counteractions.

Many of the action-verbs in the illustration are common, but their newness and special power in this context should not go unnoticed, for instance:

- **Correlate:** It is the principle on which are built those intriguing visual representations called *knowledge maps* (see the one at Netzspannung.org, 2005); it is the foundation of the most advanced *digital repositories*;
- **Share:** It is the fundamental equation ruling the Web and the world of virtual communities;
- **Scan:** The mechanism at the heart of search engines, irreplaceable prostheses for our memory;

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