A Philosophical Look at Knowledge Management

Lewis Hassell, Ph.D.

College of Information Science and Technology Drexel University Philadelphia, PA 19104 lew.hassell@cis.drexel.edu

Abstract: Knowledge management claims to be the successor of various trends in the business world, including, but not necessarily limited to information resources management, business process reengineering, management information systems, and organizational memory. A number of definitions have been proposed for it. The implications of these definitions for and the possibility of "knowledge management" are questioned.

1 Conclusion

It may seem odd to put the "Conclusion" section first. We do this because most of the participants will be non-philosophers. In recognition of this, we are attempting to spare the "practitioners" at the workshop the pain of trying to keep straight the circumlocutions that philosophical argumentation sometimes seems to take. Our conclusions, then, are:

- 1) There is no knowledge outside of experience.
- 2) Knowledge is therefore always embodied i.e., it is always in a physical human being.
- 3) Experience is always the experience of some (rational) individual in a society.
- 4) Knowledge therefore is associated with a social group.
- 5) (Computerized) knowledge management, therefore, can only ever be global information management. By global information management we mean the widespread distribution of structured, semi-structured, and unstructured organizational data.

Knowledge management may glean a number of implications from our conclusions:

- 1) Attempts to capture "real" knowledge are doomed to failure.
- 2) Simply providing full text documents or semi-structured documents (like those found in Lotus Notes) can lead to less productivity unless great care is given to properly filtering/categorizing the information before presenting it to employees so they can find the information that best addresses their needs and which they can then turn into knowledge.
- While vendors and other practitioners who have a vested interests in providing "knowledge management solutions" are perfectly entitled to continue to call

what they do "knowledge management", it would be more productive to focus on what one can do, which is facilitate the communication of data or information (which is structured data) within an organization.

- Real knowledge "management" must include instilling loyalty in the employee that can only come from a sense of legitimacy that modern capitalism sorely lacks.
- 5) But this will probably not get you what you want anyway. What people are really looking for is to foster creativity, which requires going beyond management to leadership.

Hopefully, with this, our arguments will be easier to follow.

2 Introduction

The idea of "managing" knowledge might have been considered somewhat amusing to (at least *some*) philosophers in earlier times. Many of these "throwbacks" would probably have conceived this to mean managing truth. This, we clearly do not mean by knowledge management. What, then, are we attempting to manage, and what activities are involved in managing this that we call "knowledge"?

The goals of knowledge management seem akin to those of education or culture? or perhaps both. The Greek concept of *paideia*¹ comes to mind [Ja70]. But can this be what the purveyors of knowledge management systems mean? One would think not. Paideia carries with it a broader time frame, befitting the passage of multiple generations. What the business community seems to mean by knowledge management might span the passage of multiple department heads, if that. *Paideia* entails a mutual commitment of the members of the community to some broader, higher, mutually advantageous purpose. The purpose of knowledge management seems to be more on the order of supplying a short term competitive advantage to a business or other entity whose commitment to the individuals comprising that entity is somewhat dubious (to which the many recent news stories involving corporate greed will attest).

In what follows, we will take a (perhaps jaundiced) philosophical look at 'knowledge' and 'management' in hopes of finding out what is meant by "knowledge management". If we went no further, then this would be as idle an endeavor as medieval theologians debating how many angels can fit on the head of a pin. What we hope to achieve by the *descriptive* process is to indicate some *prescriptions* about what we should consider knowledge and the domain of knowledge management. Philosophy may thus be the discipline that "keeps everyone honest." It realizes that words have consequences and it demands a thorough accounting of those words. The possible implications of the business community's attempt to "manage their knowledge assets" for political and

_

¹ One may think of *paideia* as culture, for a start. It encompasses a consciousness of (shared) values that govern human life and an approach to educating the society in those values.

social philosophy should also be considered, though a thoroughgoing discussion is beyond the scope of this paper.

3 What is knowledge?

First things first: philosophy tells us that there is no knowledge outside the possibility of experience [Ka65]. And experience is the experience of a sentient being (so, at this time, computers don't qualify). While there is still lively debate in philosophical circles concerning the exact nature of experience, for present purposes we may consider it to mean that *knowledge* occurs within a context of social activity, or what continental philosophers call a Life World [see, for instance, Hu70]. Furthermore, knowledge is essentially idiosyncratic. Knowledge lies not in discrete elements that are provably correct, but in the interplay of sometimes conflicting elements [Fe75,Fe99].

Knowledge as "the experience of a human being" means that there is no such thing as disembodied knowledge. Intelligence is not based on deductions made from rules overlaid on some massive database. Instead, it is a way of acting within an environment or community. Decades of experiments with databases and expert systems have failed to come even close to human intelligence [Dr72, Dr92, Dr01). Even the "purest" form of knowledge, mathematics, is still (arguably) based on the embodied mind [LN00].

One doesn't even have to be a philosopher to realize that knowledge is not just some elaborate data that can be shoved into a data (or knowledge) base. In the California Business Review, McDermott [Mc99], too, pointed out that knowledge belongs to communities. But what does it mean to have a community? Is this community simply a group of "knowledge workers"? What about the clerks, secretaries and other "lower level" workers? Surely they cannot be "knowledge workers"? or can they? Are they part of the community? Do they support and add to its activities? Where does knowledge begin and "non-knowledge" end?

Dorian Cairns [Ca00] showed that emotion may manifest reason as much as belief. If emotion does manifest reason, then emotion can be part of knowledge. How would this impact knowledge management? Certainly, computers would be of dubious value here.

There is yet another aspect to knowledge that philosophers in the continental tradition refer to as "authenticity" [Hu70, He62]. "Authentic" experience is the gold standard of knowledge. "Inauthentic" experience is more akin to hearsay. It is second hand "knowledge". While the "knowledge" gathered by a knowledge management system may have been authentic for the person who put it there, it is certainly not authentic for the person who finds it in the system. The answer to this problem might seem to be to include as much of the context surrounding the knowledge as possible. This is a slippery slope as aptly demonstrated by the sociologist Garfinkel [Ga67].

Thus, knowledge is not just organized "stuff" ("information", call it what you will). Knowledge is even more than just recognizing patterns in information, which is what vendors of knowledge management products would like you to think. Conceivably, one day, we will produce computers that are capable of recognizing complex patterns in piles

of data or information². But for knowledge to occur, they will also have to know when *not* to apply the information, to make exceptions, to reason. Furthermore, they will have to collaborate with others who can help. In short, they will have to be able to do the sort of thing that any good secretary can do today.

Making implicit or tacit knowledge explicit seems to be another goal of knowledge management systems [Kr02]. But the difference between implicit and explicit knowledge is not that one is "in your head" and one is recorded. Implicit knowledge is that to which one cannot give ready voice. It may be knowledge that you do not know that you have until "you find it."

Moreover, if Feyerabend (see above) is correct that knowledge is the interplay of discrete elements, then if you alter the interplay of the discrete elements, you also alter what is the result. Thus extracting the "knowledge" from someone's "head" is doomed to failure. The best one can hope to do is order these discrete elements in one or more reasonable (whatever that means) arrangements for later retrieval. But this is not knowledge management.

Given that, knowledge cannot come from simple communication mechanisms but must come from a culture, which implies social organization, commitment, and common values. And if providing a quick and ready reference to expertise (implicit or explicit) is what knowledge management is trying to achieve, then you are in fact trying to build an electronic community. Community, however, requires more than email.

Again, I cannot claim that all that I have said is somehow peculiar to philosophers or a particularly philosophical stance. In the Harvard Business Review (hardly the bastion of wild-eyed philosophers), John Seely Brown [Br02] points out that work practices must be developed as one develops products. Furthermore, Mike Useem, the management guru from the Wharton Business School, reminds us that organizations do not move forward simply by efficiently managing what they have. Organizations move forward (particularly in tough and perilous times) through *leadership*. According to Useem, leadership involves "improving and perhaps even transforming what we have inherited from others" (Us98, p. 263). We point this out only to show that philosophy is not so far off the (business) mark.

We are constantly told (e.g., Drucker, pick a book) that the old rules don't apply and that we are living in a new age. It is interesting that the old rules stopped applying about the time that we stopped applying the old rules: respect for workers who possess knowledge, who do a good job, who work hard. Of course, we were also told that the old rules of the stock market? profitability, sound business models, etc.? don't apply any more. Has anyone looked at their NASDAQ stocks lately?

4 What is managing?

_

² Don't look forward to this any time in the near future. Computers are still *terrible* at simple pattern recognition.

Philosophers have not been very active in the discussion of what is meant by management, but let's take a stab. Webster's defines "to manage" as "to direct or conduct business affairs." That is the definition of the word as an intransitive verb. As a transitive verb, the definition is much more to the point: "to direct or control the use of"; "to exert control over"; "to make submissive to one's authority, discipline, or persuasion." We must be circumspect in our desire to dominate. There are those that believe that if nature rails at our attempt to dominate her, this can be solved by a little more domination and manipulation. I am not one of them. And even if we can "exert control over" our material assets – make them "submissive to our will" – this just sounds a bit odd, if not unpleasant, when directed to our "knowledge assets". Is there any aspect of our life? physical, spiritual, social? which modern business does not want to dominate and control? Perhaps it is time to reread Marx.

5 What does it mean to "manage knowledge"?

So, one more time, what does "knowledge management" mean? According to whatis.com, "Knowledge management is the name of a concept in which an enterprise consciously and comprehensively gathers, organizes, shares, and analyzes its knowledge in terms of resources, documents, and people skills." The confusion over the difference between information and knowledge is exemplified in the next paragraph, where they say that "Knowledge management involves data mining and some method of operation to push information to users." Knowledge management involves "pushing" information to appropriate users? Somehow, this seems less lofty a goal than many in the knowledge management community would like. Are we then to conclude that knowledge management is information management plus email?

So, we can at least safely say that we want to "push" this data/information/knowledge to knowledge workers? As the reader can guess, the definition of a knowledge worker is as nebulous as the definition of knowledge in "knowledge management". Programmers are often referred to, as an archetype of knowledge workers. Factory workers presumably are not knowledge workers. Nor are farmers. But what about programmers who don't keep their skills up to date, or aren't imaginative in their approach to problems, are they knowledge workers? And what of the factory worker who pours over a problem on the factory floor, even dreaming about it, and one day a solution "dawns" on her – is she a knowledge worker? Or the farmer who uses satellite and advanced agricultural information from the government to produce more wheat – is he a knowledge worker? And what about our ancestors who invented the wheel, or a reliable way to produce fire – were they knowledge workers? Furthermore, as pointed out above, knowledge workers don't exist in a vacuum but in a social network much broader than their own narrow field or discipline.

It has also been said that the fundamental characteristics of management in knowledge management is gathering, organizing, refining, and disseminating. But are we gathering, organizing, refining, and disseminating knowledge or information? If information, then when does it become knowledge? If knowledge, when did it become such?

In any case, what one would need in order to have *real* knowledge is an electronic *Lebenswelt*, or better yet, electronic *paideia*? i.e., an extended culture with a system of values and education in those values. There is precious little discussion in knowledge management literature, however, of the development of this type of community. Where is the discussion of shared values, of common commitment? One suspects it left when the focus was put on the computer. Or maybe it was when employees became information "assets". Or maybe when those few at the top of an organization began to make hundreds of times what those at the bottom did.

A great many knowledge management systems seem to be textual databases, or semistructured document databases (e.g., Lotus Notes). As such, they are based on some sort of text or written expression [Da01]. Communication between people often involves verbal communication. Research [Ha95, HC96] has shown, however, that linguistic expression is considerably different in written versus oral discussion of the same subject domain. The impact of these differences has yet to be adequately explored by the knowledge management community.

On a related note, an interesting debate has occurred in the linguistics community about what text even means. Specifically, does text communicate authorial intentions, or simply transmit information [DB01]? Those who contend that text does communicate authorial intentions center their argument on the production of fiction [see, e.g., Gi01]. We must wonder if this applies to non-fiction, particularly business text, where the author(s) may or may not be known to the reader. Gerrig and Horton [GH01] argue that communication is not dichotomous (communicating authorial intention or not) but continuous. Text may be communication, but it certainly is not the same as spoken language. The differences can be crucial.

According to the Gartner Group [cited in SK00], knowledge management is a "discipline that promotes an integrated approach to identifying, capturing, evaluating, retrieving, and sharing all of an enterprise's information assets." This includes not just paper-based and electronic data and documents, but also "uncaptured expertise and experience in individual workers (p. 3)." This would imply that the cognitive (conscious?) life of the worker is somehow the property of the employer. (Karl Marx would be fascinated, though perhaps not shocked, at this.) While it is reasonable to believe that an employer contracts with the employee to perform certain functions, and thus owns the result (artifact) of the process or activity, the ownership of one's expertise and experience is troubling to one who does not recognize the canonization of Adam Smith.

6 Final thoughts

If we can assume, then, that knowledge is sense impressions (or data, or whatever) within a structure as interpreted within the experiential background (let us call it a *Lebenswelt*), then real knowledge management is not possible without a *wildly* totalitarian regime. Polanyi [Po70] correctly (in my estimation) argues that "Apart from meaningless sense impressions there is no experience that abides as a 'fact' without an element of valid interpretation having been imparted to it" (p.89). Interpretation occurs against a backdrop of context as it occurs within a society.

Suffice it to say that this implies that if you spend enormous amounts of time and money creating a "knowledge repository", you will be sadly disappointed. What you must spend time and money on is your work force. Humans are not replaceable pawns in the process of knowledge production. They embody the knowledge? indeed, they *are* the knowledge. Useful, even provocative, bits of information can help them, but that is all. The best the knowledge management community can do is to provide information that is well categorized [see, e.g., Sm95, Sm98]? which is easier said than done.

You are of course free to redefine "knowledge", then declare that you have created a knowledge management system. You will not, though. Knowledge resides in the human? not simply the human mind, but in the whole human, social being.

Recognizing that people embody knowledge, some organizations, in the name of knowledge management, try to facilitate directing people with questions to people with answers. Without the creation of a true community, this can only be "knowledge herding." Community? true community? implies shared values, a shared sense of purpose, shared rewards and motivations. Twenty years ago, those of us who were building databases discussed the problems of getting people to populate our databases. What would motivate a person to take their knowledge? that which makes them valuable to an organization? and share it with others? If you answer that question, you will find the answer to productivity, indeed, creativity. My bet is, however, that the answer will have little, if anything to do with a computer.

Bibliography

- [Br02] Brown, J. S.: Research That Reinvents the Corporation, Harvard Business Review. August 2002, 80(8).
- [Ca00] Cairns, D.: Reason and emotion. Husserl Studies, 17, 2000; 21-33.
- [Da01] Day, R. E.: Totality and representation: A history of knowledge management through European documentation, critical modernity, and post-Fordism. JASIST, 52(9), 2001, 725-735.
- [DB01] Dixon, P.; Bortolussi, M: Text is not communication: A challenge to a common assumption, Discourse Processes, 31(1), 2001; 1-25.
- [Dr72] Dreyfus, H.: What Computers Can't Do. Harper and Row, New York, 1972.
- [Dr92] Dreyfus, H.: What Computers Still Can't Do. MIT Press, Cambridge, 1992.
- [Dr01] Dreyfus, H.: On The Internet: Thinking in Action. Routledge, New York, 2001.
- [Fe75] Feyerabend, P.: Against Method. NLB, London, 1975.
- [Fe99] Feyerabend, P.: The Conquest of Abundance. University of Chicago Press, 1999.
- [Ga67] Garfinkel, H.: Studies in Ethnomethodology. Prentice Hall, 1967.
- [GH01] Gerrig, R. J.; Horton, W. S.: Of texts and toggles: Categorical versus continuous views of communication. Discourse Processes, 32(1), 2001, 81-87.

- [Gi01] Gibbs, R. W. Jr.: Authorial Intentions in Text Understanding. Discourse Processes, 32(1), 2001, 73-80.
- [Ha95] Hassell, L.: Media, Speech Act Theory and Computer Supported Cooperative Work. Drexel University, Unpublished doctoral dissertation, 1995.
- [HC96] Hassell, L.; Margaret, C.: Indirect Speech Acts and Their Use in Three Channels of Communication. In Proceedings of LAP96, Springer-Verlag, 1996.
- [He62] Heidegger, M.: Being and Time. Trans. by J. Macquarrie and E. Robinson. Harper and Row, New York, 1962.
- [Hu70] Husserl, E.: Logical Investigations. Second Edition. Trans. by J.N. Findlay, Routledge and Kegan Paul, New York, 1970.
- [Ja70] Jaeger, W.: Paideia: The Ideals of Greek Culture. Oxford University Press, 1970.
- [Ka65] Kant, I.: Critique of Pure Reason. Trans by N. K. Smith, St. Martin's Press, 1965.
- [Kr00] Kreiner, K.: Tacit knowledge management: the role of artifacts. The Journal of Knowledge Management, 6(3), 2000, 112-123.
- [LN00] Lakoff, G.; Núñez, R.E.: Where Mathematics Comes From: How the Embodied Mind Brings Mathematics into Being. Basic Books, 2000.
- [Mc99] McDermott, R.: Why information technology inspired but cannot deliver knowledge management. California Management Review, 41(4), Summer, 1999, 103-117.
- [Po70] Polanyi, M.: Science, Faith and Society. University of Chicago Press, 1970.
- [SK00] Srikantaiah, T.K.; Koenig, M.E.D.: Knowledge Management for the Information Professional. ASIS Monograph Series, Information Today, Inc., Medford, New Jersey, 2000.
- [Sm95] Smith, B.: Formal Ontology, Common Sense, and Cognitive Science. International Journal of Human-Computer Studies, 43, 1995, 641–667.
- [Sm98] Smith, B.: Basic Concepts in Formal Ontology. In (Guarino, N., Ed.): Formal Ontology in Information Systems, IOS Press, 1998.
- [Us98] Useem, M.: The Leadership Moment. Random House, 1998.