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The Ethics of Knowledge Management

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"In science, knowledge is an unmixed good; in ethics and politics it is bad as well as good"
-John Gray (2003)

INTRODUCTION

The purpose of this article is to suggest why knowledge management (KM) research and practice needs an ethics dimension and to identify questions to help develop that ethical dimension. As such, the article is best classified as a discussion rather than as a research paper.

Although KM has become an important interdisciplinary area of study both within the domain of information systems and beyond, there has been relatively little discussion on the ethical issues, despite its relevance to KM systems and the interaction of actors, processes, and technology in all aspects of KM from design to actual use.

By ethical issues, we refer to the underlying motives for the introduction of KM systems, the way they are actually used and the impact of their use on individuals, the organization, and society. Ethical issues are also relevant to the researcher studying KM, where the subject being researched and the way the research is conducted can raise ethical issues.

KM motivations and behaviour are intertwined with power relations and the self-interests of engaged actors, including researchers, and where during the design, implementation use and research into KM systems, dilemmas, sometimes explicit, but more often tacit, may affect behaviour. The public discussion around the relationship between business organizations and "social responsibility" is a relatively recent phenomenon. The discussion has been a useful one for reminding business organizations, and government at times, of their position, relationship, and responsibility to a social world beyond their corporate boundaries. In doing so the discussion introduces the concept of accountability which is helpful for thinking about the ethical dimensions relating to KM systems, processes and research. Furthermore, the article draws attention to the distinction between the subject matter of Knowledge Management and the much older topic, not specifically articulated within the IS discipline, of the Management of Knowledge. The latter is more concerned with the manipulation (and often distortion) of knowledge to obtain desired outcome (Land, Amjad & Nolas, 2004).

The article draws from examples where the design, implementation, and use of KM systems and processes overlooked questions of accountability — what we have called the

dark side of knowledge management (Land, Amjad & Nolas, 2005a, 2005b) and draws on examples from both business organizations and government. The first part of the article establishes why an ethics dimension is necessary in KM theory and practice and the second section identifies questions on how an ethics dimension could be integrated with current KM research and practice.

WHY KM RESEARCH AND PRACTICE NEEDS AN ETHICS DIMENSION

KM Research

Ethical issues exist in all steps of the research process. Research can be defined as a knowledge-based activity involving the researcher in many choices regarding the collection, distribution, storage, and sharing of knowledge. What we mean by ethical issues can be described with the following example. Action research involves the researcher intervening in the activities of the organization being studied. What are the obligations of the researcher to make clear the possible consequences of the intervention on individuals and the organization? Should the researcher take the role of whistle blower in cases where the researcher comes across dubious or illegal practices? Or should the research take a more distanced approach and just describe the situation?

The first example, with respect to IS research into different aspects of KM, is based on the work of Hosein (2005). According to Hosein, IS researchers, in particular those whose research is closely tied to the design and implementation of systems, have been slow in flagging ethical issues. Certain issues remain taboo – in part because research funding and collaboration depends on the good will of sponsors, partly as a consequence of the IS researcher's relationship to the organizational hierarchy. In other words, it appears that IS researchers by being preoccupied with the management perspective and the managing of information and knowledge, and the impact of the research on their own careers, may "forget" to worry about any of the broader issues.

Another example relates to the research responsibilities of interdisciplinary research such as knowledge management. Some researchers only cite references which support the argument put in their papers, omitting to cite authorities such as Wilson (2002) who contest these arguments or who provide alternative explanations. This becomes a more serious issue in interdisciplinary research because the referees may not know the whole corpus of knowledge relevant to the issues. Citing references is itself an act of knowledge management. In the field of KM there has been some tendency to omit references drawing attention to the political nature of organizational behaviour. Does the researcher have an ethical obligation to make corrections once the omissions have been pointed out?

KM Practices

KM systems provide an opportunity to manipulate and control knowledge in all phases from the sourcing, collection of knowledge, to its storage and distribution (Alter, 2006). Knowledge can be created, omitted or withheld, suppressed, amplified or exaggerated, diminished or distorted. Such activities may arise by accident or mischance (perhaps a virus attack), but often the manipulation is instrumental. Two examples illustrate such manipulations of knowledge in two different contexts: private sector and civil society.

Enron, for example, had a reputation among its employees for sharing knowledge to benefit both of the organization and its employees (Cruver, 2003). At the same time the senior management of the company was engaged in massive fraud engineered with help from the management of knowledge on a vast scale. In its final stages this involved the destruction of information, and hence, knowledge about the affairs of Enron, by means of shredders, abetted by the companies auditors.

In a different context though similar situation, Ebrahim (2003) argues that NGOs must consider how information flows from the local level NGO, up to the level of the international

funding agencies. The manipulation of knowledge when it travels from a poorly resourced NGO in India, for example, is motivated by the need for survival. The process of budget validation is itself a political process used for determining priorities. Ebrahim notes the need for accountability from international level agencies, down to the local level NGOs as a way of ensuring proper, ethical conduct.

QUESTIONS ON ETHICS AND THEIR INTEGRATION IN CURRENT KM RESEARCH AND PRACTICE

The paper identifies issues and questions that establish an agenda for further debate and research that may contribute to a wider understanding and hence improvement in ethical conduct. The sort of ethical questions that we can begin to ask knowledge management systems and processes include:

1. What ethical issues such as discrimination and domination arise from the interaction of sponsors, designers, implementers, and users?
2. How is accountability built into all aspects of KM from research to practice?
3. Who promulgates ethical standards and acts as the enforcer?
4. How are disputes involving contested value systems and ethical standards resolved?
5. Can we devise systems of accountability which does not stifle initiative, entrepreneurship, and innovation?
6. All new systems have unintended consequences. Some of these may raise ethical questions. How do we respond to these?
7. How do we ensure transparency and uncover the hidden agendas?

The above questions are relevant to both researchers and practitioners of KM systems and any attempt to provide answers must draw on a very wide range of sources coming from many disciplines. Baskerville and Dulipovici (2006a) suggest that a number of disciplines contributed to our current notions of KM. Table 1 reproduced from Baskerville's paper summarises these sources.

But there are other sources and ideas which current thinking about KM has tended to neglect which throw a somewhat different light on some of the issues and in particular the ethical issues. One such idea drawn from outside the realm of IS or KM, is the notion that the management of knowledge relies on communicative actions. McLuhan (1964) warned us that modern methods of communications are used to distort the truth, while Habermas' (1987) Theory of Communicative Action provides us with valuable insights relevant to the issues raised in this article, in particular, the way we use language determines responses and behaviour.

Ethics

Ethics relates to codes of conduct regarded by a community as right and good. They may be based on notions of morality or values. They may be faith based, determined by rules of proper conduct laid down by some higher authority. As such, we note the conflicts that can arise where values clash or rules differ. Ethical principles are rarely the subject of absolute standards. Nevertheless, conforming to ethical standards does require some consensus at least within a defined community. Some communities consider ethics sufficiently important to subject their activities to scrutiny by an ethics committee, which may operate on a mandatory basis with legal sanctions against those who flout its rulings. Others work on the basis of voluntary agreement. The medical profession has led the way in being subjected to mandatory ethical audits as well as voluntary agreements.

In this context it is of interest to note that codes of conduct, which might be defined as ethical, can also apply to communities of practice outside the normal establishment. The notion of honour, which helps to sustain an organization such as the Mafia, with its strict adherence to Omerta (silence), is an example

Table 1. Disciplines contributing to current notions of KM

Theoretical Foundation	**Key Knowledge Management Concepts Drawn from This Foundation**	**Applied Purpose in Knowledge Management**	**Developed Knowledge Management Concepts**
Information Economics	Intellectual Capital	Rationale	Knowledge Economy
Strategic Information Systems	Core Competencies	Rationale	Dumbsizing, Knowledge Alliances
Organizational Culture	Tacit and Articulated Knowledge	Process Definition	Knowledge Culture
Organizational Structure	Goal-seeking Organizations	Process Definition	Knowledge Organizations
Organizational Behaviour	Creativity, Innovation, Organizational Learning, Organizational Memory	Process Definition	Knowledge Creation, Knowledge codification
Artificial Intelligence	Knowledge-base Systems	Process Definition	Knowledge Infrastructure
Quality Management	Risk value Benchmarking	Evaluation	Qualitative Frameworks

of the darker manifestation of KM in action. It helps us to understand that ethical principles are rarely absolute but are relativistic and arise out of particular situations.

In the following section we distinguish between various situations in which issues of ethics and accountability surface in relation to KM and the management of knowledge. However, we do not claim to provide a complete or comprehensive classification. Instead, the situations noted are put forward as an indication of the range of issues which the IS and KM communities need to address.

For the purpose of discussion, we have highlighted the ethical issues according to three dimensions. The first dimension relates to socio-economic issues raised by Knowledge Management practices, the second relates to technical issues, and the final dimension relates to legalistic issues.

Socio-Economic Issues

It has been suggested that beyond the rhetoric advocating the value and efficacy of KM practices and systems there is a hidden agenda (Bryant, 2006). Bryant suggests that the drive to introduce such systems has an underlying motivation — to increase the power of the organization over the knowledge worker. By capturing what the knowledge worker knows in knowledge stores such as data warehouses, the knowledge worker becomes less valuable and can ultimately be dispensed. Indeed is the hidden agenda, behind the importance attached to making tacit knowledge explicit in the KM literature (for example, Nonaka, 1998) related to the attempt to extract maximum value from the knowledge worker in such a way that the worker becomes more vulnerable to downsizing? Bryant suggests that KM, like BPR before, it is merely a euphemism for downsizing.

Similarly, organizational and political studies emphasize the instrumental use of knowledge. For example, Sussman and colleagues (Sussman, Adams, & Raho, 2002) define the organization as a "political system, a network of interdependent members using power, influence, and political manoeuvring to achieve their goals." Politics can be defined as an intentional social influence process in which behaviour is strategically designed to maximize short term or long term self interests and the management and manipulation of knowledge and information provide one of the principal means to achieve this. This raises a range of ethical issues related to the behaviour of private corporations and public administrations.

The Designers and Implementers of KM Systems

What are the ethical responsibilities of those who design and implement KM systems and may create situations which could be regarded as unethical? Do we need an ethics committee, as is widespread in adjudicating the appropriateness of medical research, to evaluate research involving design and implementation of innovative systems in the IS arena? As Hosein (2005) points out in his case study of data mining, the ethical issues regarding data mining were not raised by the IS or KM communities, indeed quite the opposite. Some of the designers, members of the IS community, took pride in the power of the systems. Instead, criticism has come from sources outside the ICT community — in this case from students of policy making. It is they, who in pointing out the ethical problems, and managed to get the systems, described in the example below, suspended.

The object was to design and implement a data mining system which could be used to gather and correlate data about the activities of citizens:

1. Including, for example, data identifying the citizen taking part in activities that are themselves lawful, such as attending protest marches, without making the citizen aware that their identity has been captured and stored.
2. Using data mining techniques to create profiles of groups of citizens and identifying the groups as constituting a threat, but where many individuals within that group are wholly innocent of creating such a threat.
3. Selling the information onwards to customers whose use of the data is unclear and may be unethical
4. The use of the data may work against human rights.

INTELLECTUAL PROPERTY RIGHTS

The management of knowledge and Intellectual Property Rights are firmly linked. What type of knowledge can be shared, and who has ownership of knowledge as a valued asset, is frequently determined by the laws and norms related to Intellectual Property Rights (Baskerville & Dulopovici, 2006b). As such, questions around ethical behaviour face both the employer and employees. Employers may unfairly exploit the knowledge of employees without providing them with due rewards for pooling the knowledge they have contributed. Conversely, an employee may equally face ethical dilemmas if withholding or distorting knowledge attributable to the employer or the team, for personal gain. But the issues are broader than those of individuals and often relate to the balance between the rights of the corporation to limit access to knowledge as against the rights of society to share in that knowledge for the benefit of society as a whole.

One example highlighting the relativistic notions underlying ethical issues is the debate stemming from the unravelling of the Human Genome (Sulston & Ferry, 2003). A team, directed by Francis Collins, and working under the auspices of the U.S. Government (the Department of Energy and the National Institute of Health), held that the intellectual property rights for the human gene sequence belonged to the organization sponsoring the research, and as such their methods and results could and should

be patented. Indeed the mission statement from the U.S. Government suggested:

An important feature of the project was the federal government's long-standing dedication to the transfer of technology to the private sector. By licensing technologies to private companies and awarding grants for innovative research, the project catalyzed the multibillion-dollar U.S. biotechnology industry and fostered the development of new medical applications.[1]

Another team working in Cambridge, led by John Sulston (Sulston & Ferry, 2003), held that the human genome belonged to all humanity and the outcomes of its elucidation should be available to all and should not be exploited solely by sectional interests. The project:

worked so well because the community held an ethos of sharing from the beginning. We gave all our results to others as soon as we had them. From sharing, discovery is accelerated in the community. Research is hastened when people share results freely. [2]

Despite their differences in the research ethos, the two teams collaborated and in the end agreed to make their joint findings available to all. The example demonstrates that well meaning people can operate with different value systems each of which raise ethical issues. At the same time, it highlights the dilemma facing the various actors when value systems conflict with examples of principal actors changing sides.

However, as Kyle Jensen and Fiona Murray of MIT recently reported, 20% of the known human genome has, in the USA, been patented mainly by private biotechnology and pharmaceutical companies (Guardian, 2005, p. 11). Empirical research (Murray & Stern, 2005) indicated that the use of patents in biomedical research had had an impact on reducing the amount of communication between complementary research projects. Nevertheless, the debate between those who regard the maintenance of intellectual property rights as a condition for research and discovery, and those who favour an open stance as encouraging discovery as well as following ethical principles, rages on.

Conversely, the Open Source movement, in which individuals contribute their skills and knowledge to a cooperative project, has turned older notions of intellectual property right on their head. The Open Source movement raises a number of ethical issues including the problem of distribution of rewards when partners of the venture contribute to knowledge.

For example**,** the construction of a new encyclopaedia represents a KM activity. One such project, the creation of the Internet located, Wikipedia, based on open source principles, invites individuals to contribute their knowledge to the evolution of Wikipedia. Contributors receive no reward. Wikipedia is available at no cost to anyone who has access to the Internet. Wikipedia follows none of the normal rules of KM and the question of intellectual property rights is ignored. Articles are not reviewed. But all users are entitled to make corrections. However, the venture raises its own ethical issues. The development of Wikipedia provides an opportunity for special interest groups to add their own special slant to entries and for other special interest groups in opposition to these to attempt to ban Wikipedia. Thus one group has appealed to Google to remove Wikipedia from its listings.

Nevertheless, the two examples, the Human Genome project and Wikipedia, represent what is perhaps a new ethical stance for the KM community.

CONCLUSIONS

KM appears as a relatively new area of study, therefore we have encapsulated in the call for a more ethical questioning of KM systems and process. In order to fully grapple with the broader issues of social values and others involved, one ought to return to a much older issue, that of the *management* of knowledge. The *management* of knowledge provides a rich context in which to expand and reevaluate our ideas around KM systems and processes, beginning with organizational politics.

There have been a number of discussions in the KM literature on the part played by politics in organizational behaviour, drawing on the literature from organizational politics and pointing to the political and ethical issues related to KM (Mintzberg, 1983; Pettigrew, 1973; Pfeffer, 1997; Sussman et al., 2002; Wilson, 1995). Nevertheless, the discussion of these issues has not been more than marginal.

The link that seems to be missing is that between "knowledge management" and the "management of knowledge." Newer forms of KM are part of the older, what may be termed, *management* of knowledge and must be reviewed and evaluated in that context. Our understanding of knowledge management is enriched by examining it in the context of the broader management of knowledge, as viewed by a range of authors (Earl, 2001; Grover & Davenport, 2001; Lowell & Claudia, 2005; Land et al., 2005a; Schulze, 1999). In particular, some of the ethical issues become clearer, from a study of the broader, older topic. Knowledge management as discussed in the IS literature is young — approximately 15-20 years old. The *management* of knowledge, however, is older and encompasses a wide range of practices which are widely known and have been discussed over the centuries by philosophers, theologians, educationalists, criminologists, among many others (see also, Land et al, 2004; 2005a, 2005b).

Much of the published writing on KM systems and practices is guided by expectation that such systems and practices are naturally benign and necessarily designed, implemented and used with the improvement of the condition of mankind in mind. However, this is only half the story and we find that many other KM type practices, perhaps the most discussed in existing literature and perhaps more often related to the *management* of knowledge rather than KM per se, have more malign objectives or are, at the least, self serving and do not result in the desired or planned improvements.

Examples include the use of propaganda and spin in politics (see Colonel Kenneth Allard, Strategy Expert, reported in the *Guardian Newspaper*, 8th January, 2004, for a good example); the imposition of censorship in relation to religious dogma, the construction of national curricula in education which have xenophobic or racial overtones; the use of the "need to know" principle in industrial management practices such as Taylorism, whereby the individual worker on an assembly line is only provided with that minimum knowledge enabling a fragmented task to be carried out; the use of less than truthful advertising and PR in marketing; and the manipulation of knowledge for criminal activities including corporate fraud. The list of examples is long. Ethical issues relating to this older form of the management of knowledge have been articulated and much discussed. KM, too, has to concern itself with the ethical issues which human behaviour inevitably gives rise to.

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ENDNOTES

1 (see: http://www.ornl.gov/sci/techresources/Human_Genome/home.shtml)

2 (see: http://www.sanger.ac.uk/Info/Press/2002/021007.shtml)

Frank Land was educated at the London School of Economics, and in 1953 joined the team at J. Lyons & Co who had built and put to work the world's first business computer. In 1967 he returned to the LSE to establish teaching and research in what was then called systems analysis. Subsequently (1986) he became professor of information management at the London Business School, but on retirement returned to the LSE as emeritus professor in the Department of Information Systems. He has been visiting professor at a number of universities world wide including the Wharton School, Sydney University, Leeds Metropolitan University, Curtain University, and the Indian Institute of Management at Ahmedabad. In 2003 he received the LEO Award from the AIS. He has published widely and in recent years has become interested in knowledge management.

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