'The nonsense of knowledge management' revisited

T.D. Wilson

Introduction

The growth of 'knowledge management' as a strategy of consultancy companies is one of a series dating from Taylor's (1911) 'scientific management'. 'Time and motion study' developed directly out of scientific management and continued into the 1970s as a widespread industrial engineering technique. In the late 1930s, the 'human relations school' emerged out of research between 1927 and 1932 at the Western Electric Hawthorne Works in Chicago (Mayo, 1933) and had a considerable influence in the emerging consultancy companies after the Second World War.

In the second half of the last century, the pace of new techniques quickened considerably: we have seen many consultancy strategies from 'management by objectives', 'the repertory grid' and 'T-groups' of the 1950s and '60s to the more recent 'total quality management', 'organizational learning' and 'business process reengineering'. And now we have 'knowledge management'.

These have sometimes been called management fads and some have been disastrous: Stephen Roach, Chief Economist at Morgan Stanley, was a strong protagonist for downsizing, arguing that it was the cure for any company's problems, but in 1997 he reversed that opinion, arguing that, on the contrary, it could be a recipe for industrial disaster. Jenkins (1997) reports Cameron, a researcher in organizational behaviour, as saying that, 'downsizing [is] the most pervasive yet unsuccessful change effort in the business world'.

Some techniques fail, or are dropped from the repertoire, because they are Utopian in character: organizations are told that the technique must be applied throughout the organization for the full benefits to be achieved. This happened with business process re-engineering, but businesses quickly realised that the costs of implementing BPR throughout the organization would be crippling and, because they attempted to apply the technique to only part of the company, the results were less than satisfactory. Two thirds of BPR efforts are said to have failed (Hall, *et al.* 1994). Knowledge management (whatever it is) also shows signs of being offered as a Utopian ideal and the results are likely to be similar.

The original paper 'The nonsense of 'knowledge management', (Wilson, 2002) caused active discussions on mailing lists and Weblogs and continues to be the most frequently 'hit' paper in the journal with, at the time of writing, more than 64,000 hits – a rate of almost 2,000 hits a month. It seems that the debate about the nature of 'knowledge management' and the reality of its existence, continues to attract interest and this chapter revisits the phenomenon to see what might be different, two years on.

The main arguments of the paper were:

1. The advocates of 'knowledge management' make no clear, operational distinction between 'knowledge' and 'information', and such a distinction is

absolutely essential if 'knowledge managers' are to demonstrate that they are doing something that is a) different from information managers, and b) different from other organizational specialisations such as organization development, change management and the management of organizational communication.

- 2. The 'knowledge management' movement originates from artificial intelligence and expert systems, where the idea of 'knowledge-based systems' emerged, but it has been adopted and distorted by information technology vendors and management consultancies to serve their marketing operations.
- 3. There is no 'core' to the literature of 'knowledge management'; rather it is scattered across a wide diversity of fields from artificial intelligence, through applications of information technology, to organization development.
- 4. The distinction made by Nonaka and Takeuchi (1995) between 'tacit' and 'explicit' knowledge is an illegitimate corruption of the idea of 'tacit knowledge' made by Polanyi (1958) and cited by Nonaka and Takeuchi. For Polanyi, 'tacit knowledge' is that part of what we know that we cannot tell, because it is inaccessible to our consciousness; for Nonaka and Takeuchi, it is what we know but have not previously told. The difference is crucial because it reveals their distinction as false.
- 5. Ideas of 'communities of practice' are unlikely to gain widespread adoption in business and industry because they are incompatible with the short-term, market-oriented, shareholder-value-driven management of such organizations.

'Information' and 'knowledge'

The distinction proposed in the paper was:

'Knowledge' is defined as what we know: knowledge involves the mental processes of comprehension, understanding and learning that go on in the mind and only in the mind... Whenever we wish to express what we know, we can only do so by uttering messages of one kind or another... Such messages do not carry "knowledge", they constitute "information", which a knowing mind may assimilate, understand, comprehend and incorporate into its own knowledge structures. These structures are not identical for the person uttering the message and the receiver, because each person's knowledge structures are, as Schutz (1967) puts it, "biographically determined". Therefore, the knowledge built from the messages can never be exactly the same as the knowledge base from which the messages were uttered.' (Wilson, 2002).

The 'knowledge management' community appears to treat 'knowledge' as a 'thing' or commodity, but it is a complex, dynamic process. What we know is always changing as we acquire, or are exposed to, new information about the world. The associations among the elements of what we know are continually changing for the same reason; and what we know about something appears to decay over time unless we put that knowledge repeatedly to use.

The corollary of this is that 'knowledge' can never be 'captured', nor can it be 'shared': all that is captured or shared is information *about* what we know. And it is unlikely that we can ever report the totality of what we know because of the multitude of associations that anything we know has with everything else that we know.

Authors, however, continue to use the terms 'knowledge' and 'information' as though they are synonyms: it seems that they are incapable of describing what 'knowledge management' may be other than in terms of 'information' and information resources. However, describing a library as a 'knowledge repository', does not make it anything other than a library. Here is a description of a 'dynamic knowledge repository' (DKR):

'A DKR is a knowledge base that encompasses all of the relevant information of a particular project. It includes recorded dialog (i.e. internal knowledge), intelligence collection (i.e. external knowledge), and knowledge product (i.e. a snapshot of an organization's knowledge, with links into recorded dialog and intelligence collection)'. (eekim.com at http://www.eekim.com/ohs/lc/dkr.html)

Here we have 'knowledge', 'information' and 'intelligence' all conflated into what is evidently a database – nothing more or less than an electronic filing system, with a classification scheme.

The scope of 'knowledge management'

The 2002 paper showed the distribution of journals carrying papers on 'knowledge management' in Table 12.1.

For this chapter, I examined the journals in which papers using 'knowledge management' in the title were published in 2003 and 2004, using the Web of Science databases. The 223 papers were distributed over 89 journal titles and various compilations in the *Lecture Notes in Artificial Intelligence*, and *Lecture Notes in Computer Science* series. In Table 12.2, below, the titles with more than two papers (i.e., an average of one a year) are shown, the titles in italic are the *Lecture Notes* series.

Table 12.1 Subject range of journals

Subject area	No. of titles
Computing & Information systems	26
Information Science, Information Management & Librarianship	18
Management	13
Artificial Intelligence	10
Engineering	8
Medicine	4

Of course, there are journals in the field of 'knowledge management' that are not included in the ISI citation indexes, but this is often for the very good reason that they do not operate full peer review of submissions.

Table 12.2 Journal coverage of knowledge management in 2003 and 2004

Lecture Notes in Computer Science	48
Lecture Notes in Artificial Intelligence	39
International Journal of Technology Management	5
Journal of Computer Information Systems	5
Journal of the Operations Research Society	5
Information Research	4
International Journal of Information Management	4
Annals of Agricultural Economics	3
Automation in Construction	3
Decision Sciences	3
Industrial Management and Data Systems	3
Information and Management	3
Journal of the American Society for Information Science and Technology	3

The conclusion reached in the 2002 paper is supported here – the literature of 'knowledge management' is fragmented over a variety of different subject areas, often having little in common, but with a strong focus on computer applications in business and industry.

This conclusion is also supported by using RefViz, an information vizualiser designed to work with EndNote. RefViz uses term-term association measures to group papers on the basis of the abstracts and keywords in the file. The set of references was analysed with RefViz, with the result shown in Figure 12.1.

The set of references was automatically structured into fourteen groups, with varying numbers of documents – the term-term association measures determine how closely documents are located one to another. We can see from the diagram that there is a wide spread of topics through the available 'space' and that the biggest cluster of documents (168, contained in six closely connected groups) is actually concerned with applications of information technology (shown as 'B' in Figure 12.1).

We can also carry out a textual analysis of the abstracts, using a simple frequency counting program called TextStat, with the result (for the 2003 papers) shown in Table 12.3. When we removed the terms 'knowledge' and 'management' from the list, we are left with the inescapable conclusion that the papers were actually about the development of organizational information systems.

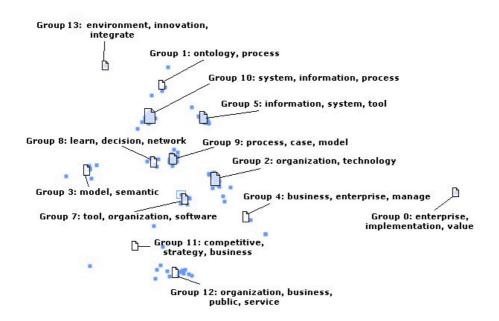


Figure 12.1: RefViz analysis

Table 12.3 Frequency of terms used in abstracts

Term	Freq.
knowledge/km	274
management/km	175
organiz-ed-ing-ation-s-al	84
information	63
system-s	60
development	41
technology-ie-ies-ical	40
project-s	37
support	36
process	31
new-ly	25
tool-s	24
ontolog-y-ies-ists-ical	24
model	24
work-ing	22
user-s	21
require-s-ed-ments	21
decision	21
operat-ion-s-ing-ional-ors	20
design	19

This analysis of the papers published in 2003 and 2004 appears to support the conclusion reached in the original paper: that there is no core to 'knowledge management', rather we have a series of disparate groups, all using the concept to deliver, essentially, papers in the field of information systems development.

The management consultancies and 'knowledge management'

The Websites of the following consultancies were reviewed in 2002 and have been reexamined.

Accenture's position on 'knowledge management' is not very obvious from its main Website, but a search for 'knowledge management' revealed many links – mainly to various Accenture partners selling services. As suggested in the earlier paper, it uses the term 'knowledge management' as a synonym for 'information management', as the following quotation suggests:

'Information can be the key to understanding customers, increasing internal efficiency, streamlining the supply chain and, ultimately, getting ahead of the competition. We help companies make the best use of information, unlocking its business value.'
(http://www.accenture.com/xd/xd.asp?it=enweb&xd=services%5Chp%5Ccapabilities%5Cinformation accessible.xml)

Cap Gemini Ernst and Young is now simply Capgemeni and its site features mainly 'Enterprise Resource Planning' and the integration of computer architectures. 'Knowledge management' does not feature in any of its drop-down menus on the top page, and a search for 'knowledge management' revealed little of interest, since the top search term appeared to be 'management'. A search for 'knowledge', however, revealed some interest in the topic. It was principally a synonym for 'information', with expressions such as 'information and knowledge sources' being used without explanation of what the difference might be. Partly, the term is used to sell the development of portal software and services and partly the company's own 'knowledge' to clients.

Deloitte Touche Tohmatsu, is another new name for the conglomerate. 'Knowledge management' is not featured on this company's main pages. As the search engine was not functioning, I could not find any specific documents. However, a new service for sale is on 'information dynamics':

'The information your company creates is one of its most valuable assets. Our Information Dynamics services can assist you in designing, developing and implementing technology and processes which create efficient information capture, archival, analysis and distribution within and between organizations. This scope of services covers the areas of Enterprise Information Strategies and Architectures, Data Warehousing, Business Intelligence, Enterprise Content Management and Enterprise Portal.' (http://www.deloitte.com/dtt/section_node/0,2332,sid%253D27772,00.html)

which is amazingly reminiscent of what other firms are calling 'knowledge management'!

Ernst and Young lacked information on the subject in 2002 and the same applies today – a search for knowledge management resulted in one revealing document on developing a corporate *information* strategy.

KPMG no longer is interested in knowledge management – its risk advisory services itemise 'information risk management' (which appears to be concerned with business systems infrastructure) and 'intellectual property services', which is concerned with:

'...better management of contracts and licences potentially leading to improved business relationships; improved cash realisation and income generation and stronger competitive position through better protection of IP.' http://www.kpmg.co.uk/services/ras/ips/index.cfm

McKinsey and Company – in 2002 this company used 'knowledge management' as a synonym for 'information management' and the same applies today. No sector of the Website is devoted specifically to knowledge management and a search reveals mainly information on the company's own information management practices or papers in the company's house journal, *McKinsey Quarterly*.

PricewaterhouseCoopers is now owned by IBM and, given that company's commitment to the idea (although it is concerned principally with selling hardware and software for data and information handling), it is not surprising that there is some attention on the PwC site. However, it is not obvious: the site map reveals no major division of the company devoted to the subject and when a search for knowledge management is carried out, many of the links refer to older material, such as the 1999 publication, *The Knowledge Management Fieldbook* and the joint publication, in 2001, with the British Standards Institution, *The KM Guide to Good Practice*. Most of the items appear to be rather elderly. However, a recent page illustrates the confusion that persists: a very good start is made in establishing that 'knowledge' is a personal phenomenon:

'Knowledge is information that has been processed, interpreted and linked to other relevant pieces of information by a person based on his or her particular set of experiences. Even when two people with similar backgrounds access the same information, the knowledge each takes away is unique. When someone uses information to achieve a business goal, that person is creating value by putting his or her knowledge to work.' (Degagne, et al. 2003, 16)

This acknowledges the distinction made in the first part of this paper and, implicitly, recognizes the point made by Miller (2002), that is, 'information has no meaning', until it is encountered by a knowing mind.

However, the piece then goes on to complicate the position by confusing 'information', 'data', and 'knowledge' – although the effort has been to distinguish these concepts. Thus, having said that, 'information is data placed in a meaningful context', the authors state, 'The root cause of information overload is that most of the information received in today's complex business environment is raw and unstructured' – here, they are clearly talking about 'data', since how can information be 'raw and unstructured' when it is already data that has been placed in a meaningful context?

Overall, the impression is that knowledge management does not have a very high profile at PwC.

For the consultancies, as a whole, therefore, the early interest in knowledge management, dating from around 1997, appears to have faded or, at best, be fading. Perhaps this is not surprising: the global economy appears to be coming out of the post-dot-com recession and they can once again drive for work in their core businesses.

The people perspective

The literature of 'knowledge management' claims that the 'people' dimension is more important than the technological (in spite of the fact that most of the same literature is heavily oriented towards technology use). Sveiby (2001) holds that the 'management of people' is one of the two tracks of 'knowledge management' and it seemed useful to explore the literature to discover how this 'people dimension' was represented. One can argue that the 'management of people' is not a very useful concept, since people are extremely difficult to 'manage' and self-management has been shown to be much more effective for organizations. What Sveiby is actually talking about is the way organizational processes, work practices and reward systems are devised to encourage information sharing, and, in the 2002 paper, this was referred to as the management of work practices.

One of the key concepts in this area is 'community of practice' and I searched of Web of Science to discover what had been published on this topic. The search resulted in thirty papers in English, published in 2003 and 2004. The journals are listed in Table 12.4.

Table 12.4 Journal coverage of 'communities of practice'

Adult Education Quarterly	Journal of Business and Technical Communication
Ambulatory Pediatrics	Journal of Computer Assisted Learning
American Journal of Medical Quality	Journal of Philosophy of Education
ASIST 2002: Proceedings of the 65 th ASIST Annual Meeting	Journal of Strategic Information Systems
British Journal of Educational Studies	Journal of Urology
Discourse & Society	Journal of the American Board of Family Practice
Educational Technology and Society	Management Learning
Exceptional Children	Organization Studies
General Hospital Psychiatry	Patient Education and Counseling
Health	Production Planning & Control
IEEE Intelligent Systems	Public Administration
Information Society (2)	Science Education
Journal of Architectural and Planning Research	Teaching and Teacher Education
Journal of Asthma	Women's Studies International Forum

Thirty papers were distributed over twenty-seven journals (only *Information Society* included more than one paper), plus one series of *Lecture Notes in Computer Science*, suggesting, as with knowledge management, that there is no core journal covering this area.

It is also interesting to see that journals on education and medical sciences dominate in this area and useful to speculate why this might be the case. The answer, I believe, is fairly self-evident: both of these fields – notably involving public sector organizations rather than business (although this is not true in some countries that have no public medical care) – are fields in which there are 'natural' communities of practice. Organizations in both sectors are generally divided into discipline-based departments, for example, departments of English, History and Science in a school, and departments of Cardiology, Dermatology, Diabetes, Neurology, etc., in a hospital. Medical specialities also usually have national and even international associations of which doctors are members and, in the UK, there are 'Royal Colleges', professional bodies that set standards and hold examinations to establish that physicians and surgeons meet the required standards. Teams are also natural work groups in both schools and hospitals: people collaborate in devising syllabuses and teaching programmes in education, and in treating patients or running an operating theatre in hospitals.

It would be surprising if 'communities of practice' did not arise in these organizations, but it is a very different matter to transplant this concept into organizations where the prevailing ethos encourages competition rather than collaboration.

There may be circumstances in organizations of all kinds that encourage the formation of 'communities of practice' and the comments above, on the 'natural' conditions in schools and hospitals may offer a clue as to what these conditions might be. One can imagine, for example, that the Finance Directors of member companies in a large multi-national corporation would have a great deal in common in terms of financial management and that a 'community of practice' could be created involving these people in regular information exchange sessions (face-to-face or in electronic forums). Such people share common interests, operate according to commonly understood norms of financial practice, and may have been trained in very similar ways to the point where they share a common language. They are also at a level in the organization where they may derive more benefit from sharing information than from hoarding it.

Knowledge management as the management of intellectual assets

Finally, in this review of the state of knowledge management, I turned to another area to which the tag has been assigned: that is, intellectual capital or intangible assets Sveiby now devotes much of his time to the development of ideas in this area, for example, the Intangible Assets Monitor (Sveiby, 2003) and methods for measuring intangible assets (Sveiby, 2004). These are desirable developments, since they relate directly to obtaining a better estimate of the true worth of a company – whether they can be called 'knowledge management', however, is questionable.

Only eighteen documents were found with the search formulation: 'intellectual capital' or 'intangible asset(s)' in the title field. Table 12.5 shows the journals in which the papers appeared, again demonstrating the lack of any core journal devoted

to reporting research in this area. Only three journals had more than one paper: International Journal of Information Management, International Journal of Technology Management and Journal of the Operational Research Society.

Table 12.5 Journals dealing with 'intellectual capital' or 'intangible assets'.

American Journal of Agricultural Economics	Journal of Education Policy
American Journal of Roentgenology	Journal of Management Studies
CIM Bulletin	Journal of Petroleum Technology
Computers in Industry	Journal of Strategic Information Systems
Expert Systems with Applications	Lecture Notes in Computer Science
Harvard Business Review	Management Learning
IBM Systems Journal	Organization Science
Industrial Marketing Management	Research Evaluation
International Journal of Technology Management	Stahl Und Eisen

Remarkably, no journal contained more than one item and, once again, we have to conclude that these subjects do not possess a core journal – interest in the subject, expressed in different ways is found in a variety of fields.

Conclusion

In 2002 I wrote:

'The inescapable conclusion of this analysis of the "knowledge management" idea is that it is, in large part, a management fad, promulgated mainly by certain consultancy companies, and the probability is that it will fade away like previous fads. It rests on two foundations: the management of information - where a large part of the fad exists (and where the 'search and replace marketing' phenomenon is found), and the effective management of work practices.' (Wilson, 2002).

and revisiting the literature of the field, as well as the consultancy Websites, has simply confirmed that view. It is evident that, on one hand, the consultancies are

losing interest in the concept and, on the other hand, that a core literature of the field has not developed.

It also remains clear that there is still a very strong focus in the literature on aspects of artificial intelligence and the development of information systems of various kinds. Nothing has emerged to convince me that 'knowledge management' is anything more than a 'buzz-phrase', designed more than anything to sell hardware and software to an otherwise resisting corporate management.

This still leaves us with the question: Why has the concept been seized upon with enthusiasm by some in the fields of information management and information systems? Part of the answer, of course, is that these field are not immune to fads of one kind or another – especially in management, but, as far as academia is concerned, one answer may be (as argued in Ellis, *et. al.* 1999) that these topics are taught and researched by departments that have a rather weak position in their universities and, increasingly, are subsumed within larger groups, such as business studies or computer science. The need to establish academic 'respectability' may drive staff in these departments to seek for novelty at all costs, secure in the knowledge that the fields they seek to colonise will not be sought after by the 'big beasts' of the academy.

However, from the point of view of practice, another part of the answer lies in the very weak position held by library and information services in business and industry. Those who run them rarely have access to the upper echelons of the business and most organizations consider them expendable when times are difficult. There is a long history of special libraries being closed down during economic recessions. Anything, therefore, that offers the possibility of establishing a stronger position in the organization is seized upon, pursued and promulgated – and when senior management has already been persuaded that knowledge management is the next big thing, the information officer who fails to take the opportunity presented would be lacking in common sense. Similarly, information systems departments have been under very great pressure as a result of downsizing, reduction in spend on information technology, and a perception that they have failed to deliver improvements to the bottom line of company accounts. 'Knowledge management' acts, for a time, as a convenient new peg upon which to hang the IT Director's hat, under the rubric of Chief Knowledge Officer. That this is temporary is confirmed by a report by Michael Earl which notes that:

'In a 1998 article in the Sloan Management Review, I reported on the work of 20 chief knowledge officers at large corporations. Sceptics may not be surprised to know that most of these CKO positions no longer exist. More than half had gone within two years of our study. In other words, knowledge management is tantalising. It still appeals to many, but success is elusive. Even defining it is not easy. Perhaps this is because knowledge management is concerned with an intangible and, in some ways, invisible asset.' (Earl, 2004).

Another observer, Larry Moyer, is reported (Davenport, 2005) as noting that knowledge management is 'generally considered a failed initiative'. He goes on to say:

"...we can no more manage knowledge than we can manage change. We can help people adapt to it, and we can help facilitate it, and There are two problems for those who accept the rhetoric of 'knowledge management' and seek to make it their own: one is that, eventually, it will be recognized that all that is available is 'old wine in new bottles' and support will ebb away. The second is that 'knowledge management' under one definition refers to the implementation of organization development strategies to change work practices so that information sharing and the possible development of 'communities of practice' becomes a reality. The difficulty here is that the library and information manager is not trained in organization development techniques and the control of the area of practice concerned, that is, organizational communication, is generally outside his or her remit – and the same applies to the IT Director.

What appears to have happened is that the well-known 'life-cycle of information' has been extended to embrace an area outside the control of the information manager – the use of information. Figure 12.2 below illustrates the situation:

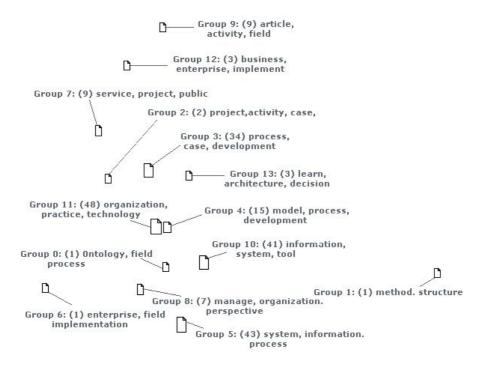


Figure 12.2: RegViz analysis

Information management is the management of the life-cycle to the point of delivery to the information user: what happens after that depends upon many things, such as the organizational climate, reward systems, organizational culture, etc. – all of which are outside the control of the information manager. Where 'knowledge management' has a focus, it is upon ensuring the effective application of what is known in the organization to secure the organization's development and survival – no management of knowledge takes place because the knowledge is embodied in people. All that can be done is to try to manage the organization in ways that ensure that learning and skills development are encouraged and that the culture supports information sharing. These are major tasks and they are certainly outside the scope of information management.

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