

Changing the role of RM: corporate memory, documents and workflow

By Glenn Sanders BA, Dip Lib, GDDM, MBII, ARMA (This article is based on work submitted in partial completion of the MBII degree, RMIT University)

Biographical Details

Glenn is one of Australia's leading consultants in document and records management. He has worked on software development for three commercial systems, written several books and articles, and been document manager for Tyndall Australia, Deloitte Touche Tohmatsu and (currently) EnergyAustralia.

Abstract

Managing the corporate memory is an increasingly important aspect of recordkeeping, yet the software tools we have available are inadequate to meet user needs, because users think in terms of processes, not documents. Our toolkit is out of step with that of our users, and lacks the ability to handle intangible processes not involving documents.

However suitable tools do exist, in workflow systems and their process management components. Using these requires enhanced skill sets, particularly in business analysis. It will mean much more to our users, and could change their perception of the nature of document and records management. And we will be setting up systems that manage all parts of the corporate memory, not just that part which resides in documents.

There are many definitions of corporate memory.

Gorman states that *Database objects are the corporate memory of the enterprise. All the rest is anecdotes*¹. This somewhat behaviourist definition comes from a technical, systems analysis framework, where policy defines processes, which generate data, which is stored in a database. If an object cannot be defined, it does not exist. This is logical and rigorous, if a touch narrow to be useful for more general purposes.

Kuhn and Abecker take a broader, though mechanistic view:

*A Corporate or Organizational Memory can be characterized as a comprehensive computer system which captures a company's accumulated know-how and other knowledge assets and makes them available to enhance the efficiency and effectiveness of knowledge-intensive work processes.*²

This moves away from the confines of structured databases, but corporate memories exist with or without computers. If they only existed in computer systems, why would we bother trying to implement KM (knowledge management)?

A more useable approach is that of van Heijst et al, who define corporate memory as *an explicit, disembodied, persistent representation of the knowledge and information in an organization*³. Now we have something explicit, without necessarily requiring computers. Because it is disembodied, it caters better for tacit knowledge. It is persistent, implying that even disembodied knowledge should be retained across time in a useful form. It covers both knowledge and information, a useful and often neglected distinction⁴, which if ignored allows IT departments and software developers to define the knowledge agenda without actually addressing the knowledge component.

This latter definition then best suits our needs, however there is an additional constraint imposed by the words *explicit* and *persistent*. That is, there must be some way of *externalising* knowledge, of transferring it to a more explicit state⁵, so it can become content for our corporate memory system.

This is where documents, broadly defined⁶, have so far dominated as content carriers, regardless of the technology used to build a corporate memory system. We already have a variety of tools to manage documents, ranging from basic RM systems with some EDM (electronic document management) functionality, through to full EDM systems.

And there are other possible tools, including data warehouses, groupware, web content management systems and portals.

Data warehousing has been touted as an instance of KM in practice, and can act as an information repository and hence as part of a corporate memory. Data warehouses can store and manage metadata about documents⁷, however, most activity has focused on transaction-oriented, structured databases, which store only a small part of corporate information.

Groupware products such as Lotus Notes and Microsoft Exchange again deal mainly with electronic documents, but can facilitate externalisation, through facilities such as teamrooms, conferences, forums and other forms of transient or permanent electronic communities, and through their increasing ability to handle artefacts⁸ rather than documents in the strict sense: e-mail, discussion groups, instant messaging, audio and video conferences and the like.

Some groupware is proactive: Lotus' Discovery Server, for example, will monitor your use over time, and suggest other documents that you may wish to inspect, and other people you may benefit from contacting⁹. While automatic user profiling is not a new idea, and past behaviour is not always relevant to immediate interests, this incarnation is an attempt to go past documents by incorporating behaviour patterns into the corporate memory system.

There has been much publicity about intranets, extranets, website content management systems and portals as expressions of KM. However, such facilities are in our context merely the presentation layer or user interface to a collection of documents¹⁰. By and large, the data available through these interfaces is held in traditional documents managed through traditional, document-based functions¹¹.

Most EDM system vendors now present themselves as portal vendors with strong document management capabilities, and are moving into content management, while content management companies have moved, albeit more slowly, to strengthen their document management capabilities.

There is much commercial and academic research and systems development, usually in narrow subject fields or functional areas¹². Some of these use customised implementations of mainstream software like Lotus Notes¹³. Others use specialised tools like mind mapping software and issue management methodologies¹⁴. All of this is interesting, much of it is useful and useable now, and most of it has great potential. But it is still essentially document-based.

So to the extent that a document database or repository can ever truly represent the real corporate memory, document management software, or software with strong document management functionality, increasingly plays a leading role.

But this is not enough. The trouble is, document and records management professionals think in terms of *documents*, but it is my experience that end users think in terms of *processes*. Because all our software tools have evolved from disciplines which manage data, documents or records, we lack tools which match the user paradigm. No wonder we don't talk the same language.

So what is a process? It is a *logical ordering of people, procedures and technology into work activities designed to transform information, materials and energy into a specified result or a sequence of steps performed for a given purpose; for example, the software development process*¹⁵.

No mention of *documents*: nor does there have to be. It is quite common for a process not to revolve around anything but itself, to have no tangible existence. It is an interesting challenge to use an EDM or RM system, or indeed a data warehouse or groupware system, to manage such a concept, a virtual thing. Of course, you can set up dummy records or containers, but it's a fiddle, and fiddles have a way of coming back to bite you, usually when you try to transfer them to another system several years later. That's why most fiddles end up called kludges. The fundamental paradigm is wrong.

However, one area where suitable tools do exist is workflow, especially its process management tools. Workflow systems manage processes. They do not require anything to be tangible, they manage a virtual object which is the process itself.

Workflow is certainly not perfect, nor is it the only possible technology, but is well understood and mature. There are many different types. Available products range from top-end, high transaction rate oriented systems, usually with little or no explicit document management functionality, through document-oriented groupware products, down to the simple routing and diary functions seen in most traditional records management systems. Whether you call these *workflow* depends on your needs and understanding, regardless of how software vendors categorise their offerings (ie caveat emptor).

Workflow has the potential to move corporate memory systems away from the existing predominantly document centric approach, because it focuses more on processes. Its addition to our toolkit can enhance our ability to address individual and group behaviour and relationships, especially for ad hoc, project-oriented work where tacit knowledge is so important.

So the tools do exist, in workflow systems, and possibly in some workflow-enabled EDM systems (if they can handle processes with no documents). The task facing us is now to target the processes rather than the data and documents¹⁶. It means we have to become very much better at business analysis, and skilled at using process analysis tools¹⁷.

But it will mean much more to our users, and it has the capacity to change their perception of the nature of document management. We will be seen as helping them do their work, with good recordkeeping as a seamless byproduct, rather than focusing only on document-specific parts of their operations, at best helping, at worst adding overheads. And we will be setting up systems that more comprehensively manage the corporate memory, not just that part which resides in documents.

¹ Gorman, Michael M. "Data is executed policy" *The Data Administration Newsletter* downloaded from www.tdan.com/i015hy03.htm 5 Feb 2001.

² Kuhn, Otto, and Abecker, Andreas "Corporate memories for knowledge management in industrial practice: prospects and challenges" *Journal of Universal Computer Science* 3(8) p929-

-
- ³ Rosner, Dietmar, et al "From natural language documents to shareable product knowledge: a knowledge engineering approach" *Journal of Universal Computer Science* 3(8) p955-
- ⁴ Many confuse the two: in *Business @ the speed of thought* (Penguin, 1999) it is clear from the text and from the structure and content of the index that Bill Gates regards knowledge and information as synonyms.
- ⁵ Nonaka, I and Takeuchi, H *The knowledge creating company*. NY, OUP, 1995
- ⁶ I prefer the term 'document' to 'record'. Our role is helping our users manage all documents, not just the subset which become records.
- ⁷ Tkach, Daniel (ed) *Text Mining Technology: Turning Information Into Knowledge*. IBM Software Solutions, February 17, 1998
- ⁸ Conklin, EJ *Capturing organisational memory*. Group Decision Support Systems Inc, 1996
- ⁹ "KM from the ground up - Lotus ships Discovery Server" *KM World*, 25 April 2001. Downloaded from www.kmworld.com.news/index.cfm 29 April 2001
- ¹⁰ Seiner, Robert S "Knowledge management: it's not all about the portal" *The Data Administration Newsletter* downloaded from www.tdan.com/i014fe04.htm 15 Dec 2000.
- ¹¹ Dodge, John "Will the real knowledge management please stand up?" *ZDNet eWeek*, 1 February 1999; downloaded from www.zdnet.com.eweek/stories/general 13 December 2000.
- ¹² Eg Prinz, W and Syri, A "Two complementary tools for the [sic] cooperation in a ministerial environment" *Journal of Universal Computer Science* 3(8) p843-
- ¹³ Eg Steier, D, Huffman, S and Hamscher, W *Meta-information for knowledge navigation and retrieval: what's in there*; downloaded from www.pwcglobal.com, March 2001
- ¹⁴ eg Shum, Simon "Negotiating the construction and reconstruction of organisational memories" *Journal of Universal Computer Science* 3(8) p909-; Moad, Jeff "In search of knowledge: new tools aim to turn unstructured data into a corporate resource" *PC Week Online*, 7 Dec 1998.
- ¹⁵ Both definitions quoted in *Process definition guidebook*, Gaithersburg, MD: Lockheed Martin, 1997; downloaded from <http://source.asset.com/stars/loral/process/guide/main.htm> 12 December 2001
- ¹⁶ Yee, A. *Demystifying Business Process Integration*; downloaded from <http://eai.ebizq.net/workflow/yee.html>, 9 Aug 2001
- ¹⁷ Eg Data Flow Diagrams, IDEF0 charts and many others: see Hommes, BJ. *Business process modelling tools (by technique)*; downloaded from <http://is.twi.tudelft.nl/~hommes/toolsub.html>, 13 Aug 2001