

Unexpected Consequences of Information Technologies on Electronic Records Management

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Abstract

Computer technology has made possible, or even necessitated the electronic record and electronic records management. It has also made the electronic document ubiquitous, and in so doing, made almost anyone an author of electronic documents. However, the ease of use and transparency of operation of electronic document software challenges these authors when they manage, not electronic documents, but rather electronic records and the more opaque perspective they demand.

Introduction

The electronic document management systems (EDMS) category of software evolved in response to the PC revolution that brought computers to the desktops of office workers everywhere. ¹

Information technologies help automate work in the office, reducing routine work and freeing office workers to do more interesting and challenging work. Most document creators will have only ever produced electronic documents, and work with increasingly intelligent software. The office worker does not generally need to know how the technology works — she has a good understanding of how to do the work, but not necessarily how the technology does its share of the work. This paradigm of intelligent, coordinated office technologies has developed, in the office worker, a strong, explicit knowledge of the work of business, and also a strong, but tacit, knowledge, or expectation of the technological mechanisms of that work.

The PC is an empowering technology, providing the office worker autonomous control of their efforts and creativity. It has also made possible the coordination and management of highly complex systems of information and functions. With the integration of ERM into office EDMS, some of the transparency of the technology must be 'revoked' as the office worker takes on responsibilities of records management.

Asking desktop end users to make records management decisions .. makes every user a records manager. ²

With the great volume of electronic documents created and used, the office worker must know how to classify a document, in order for it to become a record; how to manage the retention of that record for its business lifetime; and how to dispose of it in the 'after-life'. And all these actions must be performed according to practice, policy, regulation, and law. Good records management is an expertise which requires explicit, and not tacit knowledge. The office worker needs to be more than an expert of their work — she must consider more critically the purpose and relations of the document cum record within the business.

1. Stephens, David O. and Roderick C. Wallace. "Electronic Records Retention: New Strategies for Data Life Cycle Management" Lexana, Kansas, USA: ARMA International, 2003. 55.
2. Sprehe, J. Timothy and Charles R. McClure. "Lifting the Burden". The Information Management Journal (July/August 2005): 48.

Records Management and Business

[T]he highest quality and accuracy occurs when records management is as non-intrusive as possible to the desktop end user and does not interfere with the normal work routines of professional staff in the enterprise. ³

The reverse could be said of records management: the highest quality work occurs when the work and tasks of business are as non-intrusive to the desktop records manager.

Polanyi defines focal awareness and subsidiary awareness respectively as: explicit, considered attention to particulars; and tacit, sensation of a comprehensive whole. ⁴

.. to the extent to which our intelligence falls short of the ideal of precise formalization, we act and see by the light of unspeakable knowledge .. ⁵

The Personal Computer, and fast and efficient Information technologies have first created the possibility of automated, easy-to-use software tools, and later the requirement to use such tools to manage the increasingly complex and rapidly evolving information.

[C]ontrol over information and communication tends to become individualized by the use of ICTs. The use of certain ICTs shifts the control over the creation and management of information from centralized to individual control. ⁶

The office worker admirably learns to work with a great variety of ever-new software tools, but the breadth of knowledge gained has come at the price of the depth of knowledge. The office worker competently navigates the complex world, but relies upon equally sophisticated assistance and guidance from the same software tools, and the expertise of Information Technology and Records Management colleagues.

The nature of the problems specifically associated with electronic records management has rarely been investigated in detail. Problems are often summarized briefly and possible solutions are explored, with the underlying assumption being that the relation between ICTs [Information and Communication Technologies] and records management is a technical and management problem. ⁷

3. Sprehe & McClure. "Lifting the Burden". 48.

4. Polanyi, Michael. "Personal Knowledge: Towards a Post-Critical Philosophy". New York, New York, USA: Harper & Row, 1962.

5. Polanyi. "Personal Knowledge: Towards a Post-Critical Philosophy". 53.

6. Meijer, Albert. "Electronic Records Management and Public Accountability: Beyond an Instrumental Approach". The Information Society 17 (2001): 263.

7. Meijer. "Electronic Records Management and Public Accountability: Beyond an Instrumental Approach". 260.

I would not suggest that EDM and ERM systems, or rather their developers, are to be blame for creating wholly inconceivable systems (at least to their users). These same systems which have borne this paradigm of powerful, tacit ability and competence, can also assist and guide users in the transformation of documents into records, and the management of the records throughout their lives.

Forefront

Knowledge of many of the business processes is tacit, and it must be explicated before it can be made electronic, that is the development of an electronic records management system to implement those business processes must bring it to the attention of the user.

Perhaps no other aspect of IRM [Information Resources Management] has suffered more from the drawbacks of the information life cycle metaphor than records management. .. [That] principal drawback is .. is that it is thought to occur at the end of the life cycle. In practice, this has tended to mean that that records management is the last thing program managers think about .. ⁸

No matter when this lack of thought occurs, it is more that that thoughtful consideration is not explicit, or that the ERMS did not explicate it for the user.

PC-based records present special records retention challenges because PC users often consider these records to be personal working files, to be used and disposed of at their discretion. In fact, this perception does have some truth to it; the records management goal is to embody it into the organization's records management policy and endeavor to implement this policy as aggressively as possible. ⁹

More than implementation or embodiment, recognition of the users' belief, or tacit understanding, that the records are hers, is a first step towards a system that builds on tacit expertise and grows a wholly conceivable records management perspective. With such a system ..

.. individual employees should be responsible for reviewing their PC-based records periodically in order to make judgments concerning their retention and disposal .. ¹⁰
Training determines how widespread the level of use was among the employees, but their participation in the adaptation of the FCS [Functional Classification System] to

8. Sprehe, J. Timothy. "Integrating Records Management into Information Resources Management in U.S. Government Agencies". *Government Information Quarterly* 17:1 (2000): 14.

9. Stephens & Wallace. "Electronic Records Retention: New Strategies for Data Life Cycle Management". 40.

10. Stephens & Wallace. "Electronic Records Retention: New Strategies for Data Life Cycle Management". 41.

the ERMS determined how skilful they were in registering and searching for information in the ERMS and how user-friendly they *regarded* the system to be. ¹¹

Participation and skill are evidence of an understanding of the tasks of records management and their relationships to the business they record. That the user actually regards the system entails consideration and evaluation of the ERMS — an understanding of more than the tasks and the relationships, but rather of the system as a whole.

Complexity

Business software tools, like word processors, databases, and e-mail have made possible the paperless office and can model most any business process. These software's are flexible enough to accurately map business processes to software tools and functions. This flexibility comes at a price - the software and software systems are complex, and so users require training and the software tools require management.

There is, however, a not-so-obvious problem posed by these adaptable software tools — they instill in the user, expectations of almost limitless capability. Such software has become so user-friendly, context-sensitive, and intelligent, that the user almost expects the software to guide the business process. The operation of that process has become transparent to the user. There is a tacit understanding of the now electronically manifest business process.

In the days of the 'paper-full' office there was a physical separation of records management and document — filing and record-keeping was done by a records manager or clerk. Computer technologies have made possible and perhaps soon mandatory, the paperless office. With this high volume of electronic document production, there is little intellectual separation of electronic records management and electronic document. The record-creators must do much of their own filing and record-keeping.

11. Gunnlaugsdottir, Joanna. "As you sow, so you will reap: implementing ERMS". Records Management Journal 18:1 (2008):29. (my emphasis)

Conclusion

It may be some time before software systems become smart enough to advise users in matters of document and records management, but when they are, they should be built so that the user is aware of their responsibilities and expertise, and that she is coaxed into exercising that expertise and not be allowed to ignore it.

The technological society contains many parts and specialized activities with a myriad of connections. The totality of such interconnections—the relationships of the parts to each other and the parts to the whole—is something which is no longer comprehensible to anyone. .. The development of advanced [Information Technologies] has made it possible to conceal the *complexity of important functions* .. removed from public view. Relationships and connections once part of mundane experience (in the sense that some person had to attend to them at each step) are now transferred to that instrument. The unintelligible mass of sociotechnical interconnections is enshrouded in abstraction.¹²

Electronic Records Management is one of the complex important functions concealed by Information Technologies. The challenge to developers then is to expose that function and provide the means of control and intelligent developed for Electronic Document Management — to forge new tools for the formation of a paradigm which retains easy, tacit document management, but permits or better, promotes more explicit records management.

12. Winner, Langdon. "Autonomous Technology: Technics-out-of-control as a Theme in Political Thought". Cambridge, Massachusetts, USA: The MIT Press, 1977: 284-285. (my emphasis)

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† All online references were accessed and confirmed on June 30, 2008.