Recordkeeping in the New E-conomy

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Introduction

In the current time frame governments are competing with each other in being 'the best or most digital country in the world'. The big idea behind is that it will make things better for the citizen, because as all these initiatives tell us they are citizen-focused, so services and information are or will be presented in a way that citizens of all kind should be able to make use of them. It is an interesting phenomenon, because the ambitions are high. Governments and business companies will be innovated and consequently they will change drastically by these developments.

One key asset in this new theatre will be information in all its forms. The virtual world of internet, the medium that should enable all this, consists actually only of information. So if modernising governments will ever succeed in achieving their goals then they have to deal with this asset in all its aspects. And as you might guess already, records are one of the crucial sources to deal with. Subsequently records management, the profession which we are working in, will be also strongly affected by these developments.

To deal with these developments, however we have to understand what is happening. The developments influenced by IT are going so fast that it is difficult to keep up with them and to understand what they really mean. What are the changes and what is their impact on recordkeeping? What approach should we take, what do we want to achieve in a certain period?
What will the world of recordkeeping look like five or ten years from now for instance? Still we can influence the future and try to retain achievements we have now as reliability, good governance, democratic rights etc. that are also based on records.

The last decade quite a lot of concepts and theories have emerged around the theme of recordkeeping or records management and even archival management. Pittsburgh, UBC, Monash, to mention a few, are well known projects that came up with interesting perspectives and ideas. Ideas people out of the profession should think about and use. The literary warrant, the authenticity requirement and the continuum concept are subjects that are addressed and put forward as possible approaches for the new digital era. It has caused a lot of discussion and debate within the community and apart from that also sharpened our concepts on recordkeeping and the debate is still continuing.

However it is all on a rather theoretical level and the big question is still, what does it mean in practice? Looking at the gaps identified for this conference, it is another gap to be bridged…and a very important one! It is also one that worries me most, combined with the lack of training courses. The discussion within the recordkeeping profession is however not shared by the people who are trying to develop this world of citizen or customer oriented digital government services. Again a concern we have to think about, how do we bridge that gap between the profession and the world it is

working in?

All these questions arise when thinking about recordkeeping in the brave, new, virtual world and in the meantime things are happening. Records are created electronically, but where are they kept? How do we deal with the vulnerability of digital (or electronic) records? Even the sun is a threat for these digital records. Recently I read an article about the periodical magnetic outbursts of the sun and their increasing influence on earth with its growing dependency on electricity. How much time is left before things go wrong or am I too pessimistic? Just after the Millennium bug, when nothing happened, it might be. Human beings are incident-driven. We do our best in accomplishing things and as long everything goes well, no one cares about possible shortcomings. Experts might, but they mostly do not have the power to take political decisions. The same goes for recordkeeping. Nonetheless we try to carry out our job as best as possible and therefore we have to think about what is necessary. In the following paper I will try to explore a little bit more the changing and challenging world and its impact on recordkeeping.

So what is the objective of my presentation within the framework of this convention? Today is dedicated to the gap between technology and implications for records management. One could also see it as how to bridge the gap between traditional and modern recordkeeping (but that is the third day). In doing so it is also inevitable to include management aspects (the second day). There is however one gap that is even more important in my opinion and that is the gap between theory and practice. How can you translate all the theories, ideas and concepts emerging from the recordkeeping or archival discourse into everyday practice of recordkeeping and achieve a transition from paperbound to digital processes and procedures? That will be the focus of my paper, that in fact might turn out to be a mix of all the gaps identified by the organisation of this convention.

The issues I want to address, be it briefly are:

- What is changing?
- What are the implications for recordkeeping?
- A model for looking at these issues
- Some conclusions

I will not give you the final answers, because they do not exist. There is no final situation either, if ever. To predict the future is very difficult and mostly wrong, so it is useless even to try. Probably change is the key characteristic of recordkeeping today and tomorrow, but that should not prevent us to adapt our expertise and skills to this new world. The challenge we have to deal with now is how to understand where these rapid developments are heading and achieve proper recordkeeping in that other world?

The changing scene

The first thing we have to understand is the nature of this new virtual world of digital information, as it becomes manifest in the World Wide Web. A lot has been said about this subject and I want to emphasise three aspects that I think are important.

First of all let us look at the object of our concern, the record. What we see is no longer a fixed, physical thing, but something that has become intangible and volatile. It has in fact fallen apart. Only when the record is presented on the screen, we can understand it as such. As soon as it has disappeared from the screen, it turns into different components, such as a file with encoded data, (application) software and hardware, necessary to reproduce the record, and a medium on which the data file is stored.
Since the underlying technology will change very rapidly, the risk exists that also the appearance and authenticity of the record that has to be reproduced, will change. How to prevent that? Preservation of electronic or digital records, even for a relatively short period of 5 or 10 years, is one of the big

issues, as we know.

One consequence of the changed physical nature of the record is that we have to describe the authenticity characteristics of the record at the moment it plays a role in a business process. That can be done by describing the content, structure, form and context of the record. That touches another important, but also complex area, that of metadata. Again a subject that has caused a lot of discussion and research, and that has even connections with other communities such as information resource discovery (Dublin Core). This physical change of the record forces us to focus on the conceptual or intellectual aspect of a record, on the core concept of what a record is, the recording of an event, e.g. a transaction or decision or report, at a certain moment in time.

Another important and interesting aspect of IT is the apparent blurring of boundaries. The big example is the world wide web. The Web seems to make everything reachable and available without any restrictions in time or place or space. Subsequently it turns this virtual world into one virtual domain. No matter where you are on earth or at what time you can enter it and make use of it. Moreover it also enables you to enter whatever domain of knowledge you want to (space). One could say to a certain extent that the physical world has shrunk to a computer screen, and that the available amount of information has become infinite. It does not mean that there are no boundaries at all, but they are more on a logical level, e.g. subject, linguistic, service-oriented. It is for instance the presentation, or branding that distinguishes organisations on the web from each other. This blurring of boundaries leads to another phenomenon called *Globalisation*. It creates similarity and uniformity, comparable with the dominance of Coca Cola or McDonalds everywhere. How can or will diversity or individuality be respected in that world?

A natural consequence of this phenomenon is the recent emergence of the possibility of storing your information ‘on the web’ and no longer on your own hard disk. It enables you to approach your data no matter where you are. The only condition is to have access to the internet. There are several companies that offer this service and also Microsoft has taken up this phenomenon in launching its *.Net*-initiative.

The third and last interesting aspect is the narrowing of our outlook or perception of time. It seems a paradox, because we are so busy, but that is only for a short time frame. We are living with seconds and as such time seemingly goes very fast. We are always in a hurry, going for another target or goal. Do we stand still and think about things? Technology is a perfect example: every 18 months capacity will be doubled, and it is hard to keep up with these developments. We hardly understand what is happening and even more or less what is possible. Still, we try and stumble forward. In the consumer society we live in as most developed countries everything seems disposable or at least we seem to very easily dispose of things. In this context it is like a paradox to try to preserve records. The dominant NOW seems to govern the world wide web, there seems to be no past.

Moreover issues around stability, continuity and memory are not really cool. Catchwords as change, innovation and improvement seem to earn that ‘term’ ….We are continuously on the move and apparently do not need the burden of the past. As a matter of fact people without a memory are usually very optimistic though falsely, as has been recognized by Erasmus in the 16th century.[2] Are we?
So it is not a new phenomenon. Until the French Revolution people based themselves on the past with the adagium ‘what old is, is good’, after that period it changed into ‘what new is, is good’ and more lineair, so to say progressive thinking. There is a growing tendency to assert that learning from the past does not help in current or new situations.[3] On the other hand one sees relatively new developments such as knowledge management, that emphasise the importance of managing intellectual capital.
The consequences of this attitude, though there are also other reasons, can be seen in developing countries where recordkeeping has been negelected for decades and people are dependent on the

endurance of records managers to find the records about their rights or otherwise are deprived from these rights. Since we do not experience that everywhere, there must be some anchors built into our society that prevent that from happening. One of them is solid administrative procedures (bureaucracy) and with it recordkeeping. Certainly within countries with a long tradition in this area, these safeties or securities exist. It is a way of good governance to take care for good recordkeeping too and by doing that of ensuring democratic rights of citizens. Without a memory (written or otherwise) society does not really exist, only arbitrariness and chaos.

All these developments lead to (more) questions for information managers or records managers or archivists. There is an increasing capacity to store information, including records, but again where is it? Who takes care for it? What guarantees are there for authenticity, reliability etc.? Is metadata the solution for getting grip on information and records in particular? As indicated parallel to all the available nice facilities and tools with which we increase our ability to store information, it seems as if we memorise less. The longevity and preservation of all this digital information is still a challenge. Attempts are made to download (parts of) the Web, but this raises huge questions on how to preserve it and subsequently how to retrieve and access it.

In a way there is a comparison with the invention of the art of printing which enabled humanity suddenly to disseminate knowledge at a large scale, and to preserve this knowledge in a better and independent way (i.e an independent carrier through time). It took however some time before people recognized and understood what the real benefits were. Now through IT other boundaries seem to have disappeared. Instead of a physical memory we have to face a kind of virtual memory. It also is an open world in which recordkeeping no longer is or can be a separate domain with its own regime. It has to be integrated into business processes and to be co-ordinated with [or be embedded in] other communities.

Having discussed these characteristics of the new world, three things emerge as important:
1. The shift of focus to the intellectual record
2. The paradigm of ‘One virtual world’
3. The integration of recordkeeping into that world, especially into business processes

Questions rise as how to achieve that integration? How to build a memory for an organisation, or at a higher level for a society? What does it mean to have a virtual memory?
I won’t go into all these questions; I just want to touch the first one.

The Role and Consequences for Recordkeeping

So far in a paper environment records managers have and had their own rather separate domain and they discussed their problems in their own discourse. In a digital world the rather closed profession of records managers and archivists has to open up, both with respect to their work, integrating in business processes, and with respect to connecting to other disciplines. That is not the strongest point of these professionals, because they stand and stood mostly on the sideline, even physically mostly located in the basement and separated from the real business.

The issue of recordkeeping is not always addressed in modernising government programs, but if so then it is seen as an ‘enabler’, as for example in Australia, Canada and also the Netherlands. What approach can they take? What tools do they have?
Before going further on the possible approach I want to have a brief look at the results of the ongoing archival discourse within the recordkeeping and archival community so far.

The landscape

The last 10 to 15 years a lot has been written on the emergence of the digital world. In a recent article Richard Cox has discussed the influence of the emerging theories on practice so far and he concluded

that it has been very small.[4] If there is any influence then it is on the way the records profession has tried to re-orient itself. These theories also helped in understanding the nature and characteristics of the new world of electronic records and systems. Another conclusion is that the discussion has been mostly very inward looking within the archival profession and his advice is that a more outward looking and multidisciplinary approach would be needed and beneficiary. We have to take into account here, however that his article is very much based on Northern American literature and as such has a limited scope.

The ICA-guide *Managing electronic records from an archival perspective*, though focused on archival management, came up with four principles telling archivists to be pro-active and not to wait until the moment archival records are transferred.[5] These principles were at the last ICA-congress in Seville this year renewed and reinforced. The same principle of being pro-active goes for records managers. As such they should be involved in designing recordkeeping systems, but also in implementing recordkeeping requirements into business applications.[6] To what extent does this recordkeeping professional, however influence record creating? In this respect we have to be careful I think and make a distinction between the recordkeeping function and the recordkeeping system, or in other words a distinction between the needs of the organisation (the function) and those of the records manager who is responsible for the records after their creation and capture (the system). The ISO Records management standard addresses both and includes also rules how to deal with record creating, or in its own words in 'documenting business activities'.[7] Yet the records manager nor the archivist has a role in defining what should be documented. That is the responsibility of the organisation itself.

This sound can also be heard in other approaches such as the Pittsburgh project or the Records Continuum Research Group at Monash University, be it in other words and concepts. Both last approaches try to look at the relevance of records for business and/or society and as such try to include it into business processes. Not the record is the centre of the universe, but its purpose and use through time. The scope of both projects is broader then just recordkeeping or record and archival management and tries to identify among others societal and organisational needs.

Contrary to these projects the UBC project on authenticity and reliability is record oriented. Trying to establish the characteristics of a record, both paper and electronic, that make it authentic and reliable. In doing so it makes use of the ancient discipline of diplomatics. The current Inter Pares project is building upon the results of the first project.[8]

In general one could say there are three mainstreams of theory building: Pittsburgh, UBC and Monash, that try to come to grips with the new economy and its IT-driven nature with respect to recordkeeping.[9]
So what is needed? We have to shift perspectives to e.g. continuum thinking, integrating recordkeeping into business processes (as a societal activity and not becoming a separate domain), and integrating or assimilating it with other, different communities such as information resource discovery (libraries), scientific data, multimedia etc.

What instruments are available for doing this? Functional requirements for recordkeeping, the continuum concept, a standard for records management, sets of metadata, the principle of provenance, even a 18th century discipline as diplomatics, it is all put forward as means to get some grip on developments. The question is: How to connect these things to practice?
In other words will all these possible approaches help and if so what problem(s) do they solve?

Impact on recordkeeping in practice

Government online initiatives will affect records management, no doubt about it, but what is happening

in practice at this moment? Or put otherwise, who is really doing *electronic* records management (ERM) at this moment? How many organisations have a policy in this respect? The experience is still rather small and mostly limited to a few people and a few pilot projects. It seems as if there is a conflict here, because there are hardly practical solutions. Yet for ERM it is all ad hoc and incidental what is happening at the practical level. I am now speaking about practice in the Netherlands, but it might be similar here... People are willing but lack the knowledge, skills, and instruments to implement and deal with electronic recordkeeping. Practice is still mainly document management based or focusing on parts of the recordkeeping area, such as is the case with e-mail, because it escapes all control.
So how can the new theories be translated into the everyday life of a records manager?

Well (in Australia) you seem to have a manual for dealing with these issues, the DIRKS manual, that provides guidance to implement the Australian Standard (AS 4390) on Records Management in organisations. However, notwithstanding its merits (and in my opinion they are great), it turns out to be a hell of a job to do such a thing. Not surprisingly the DIRKS Manual states that 'due to its rigour …. a significant commitment in terms of staff, time and money [is required]' and that is the issue. Who is going to spend that amount of time, staff and money? How much time will it require or otherwise how much time do we get, do we have the staff with the proper qualifications to do it, where do we get the money from? All questions that arise when reading this manual and its objectives.

Do not get me wrong, I think the Oz-Manual (to distinguish it from the Dutch Manual) is an impressive and very useful piece of work. As such it offers everything you need, but it is also thick and requires a lot of reading, thinking and work. It provides guidance through the jungle of literature on this issue and a direction where to go, gives an excellent overview of the relevant issues and a methodology how to implement them.

In all, it addresses the right things, but we all know the difficulties to get it done. Actually this manual should be accompanied by another guide telling you how to convince senior management of your organisation for taking up this challenge. That is in fact the preceding step. Before we can implement it, we have to involve top management not only to get the proper resources, but also lay the basis for integrating recordkeeping in digital business processes . That is an issue we are now trying to deal with in the Netherlands and my next subject.

A framework for implementation

In order to get the attention and even the commitment of senior management for recordkeeping in electronic government it is necessary to provide them with a plan and objectives they can understand. The issue is to define a path from the current still mainly paper based situation toward a future where recordkeeping is integrated in digital business processes. In doing so the nature of the new environment has to be taken into account as well as the insights provided by recent archival thinking, as discussed before.

Furthermore we have to take into account three perspectives to look at using information and records within the framework of government online initiatives:

- User perspective (both of the public and of the public servant) that requires usability, easiness, timeliness
- Management perspective (the responsible person) requiring awareness, ownership, responsibility
- Recordkeeping perspective (the professional) requiring expertise, direction (a new role?), and control.

Each of them posing its own requirements. How to get it on the ground?
There are two ways of approaching this issue, bottom-up and top-down. The latter is theoretical and

starts with a concept (e.g. continuum) that offers → a framework (e.g. standard) → that could support a strategy (e.g. DIRKS manual) → that can be implemented with tools (e.g. requirements, software), and of course rules and resources to do it. This approach more or less supposes there is nothing there yet, which is almost never the case.

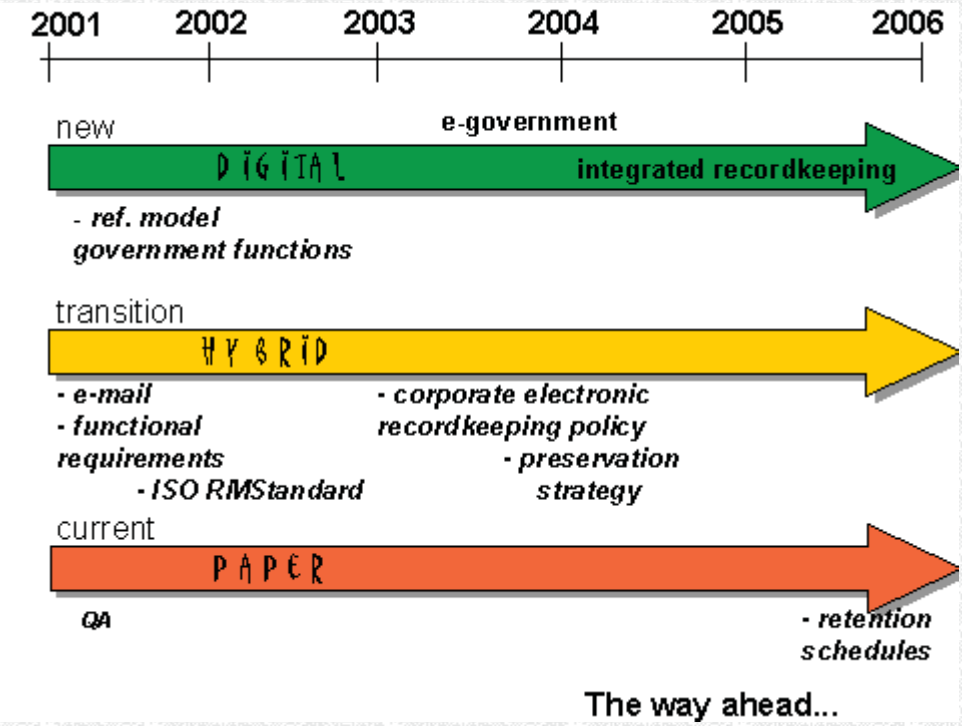
The other is trying to include aspects of new approaches into existing structures and procedures. In this setting it will always be difficult to keep an eye on the whole and activities tend to be partional and ad hoc. An example of such an approach is the ongoing discussion on e-mail and its elusive character.
In practice it will be a mixture of both approaches. It also raises the question to what extent both paper and digital recordkeeping can be combined or how gradual the transition from paper to digital can be. What will be needed are in fact two different infrastructures (or systems in a broad sense), one for paper and one for digital based business processes, that co-exist next to each other for a certain period, and are on higher level connected under one (recordkeeping) regime. In that sense digital recordkeeping starts from scratch as is in fact the case with electronic service delivery into which it should be integrated.

The 'Digital Longevity' program, as existing in the Netherlands since 1996, is focusing on four areas or objectives:[10]

1. the transition to completely digital business processes as part of e-government, with integrated recordkeeping
2. the establishment of transparent and consistent access to government information
3. the improvement of the quality of recordkeeping: competencies, training, ISO standard
4. the control and assured quality of current records (mostly paper).

With this set of objectives we address senior management, providing them a policy to implement in their own organisation. As such what does a manager need to adopt a program? That requires a way forward and explicit objectives that take care of some of the concerns he or she has. At this moment we are translating these objectives into a schedule with milestones and a 'magic' year in which complete digital business processes are achieved.

In doing so we developed a reference model that includes these 4 objectives into three action or time lines (see diagram). These lines deal respectively with the current situation, the transition to the new world and the creation or emergence of that new world itself, with the ultimate objective to achieve an integrated recordkeeping environment.



This model can be used for different perspectives, as for instance for assessing the state of the use of IT within an organisation, or for assessing the state of recordkeeping. It might even be used for evaluating the state of thinking about recordkeeping. Thinking should be in line with the objectives you want to achieve. If you want to accomplish digital recordkeeping, the theoretical concepts should be 'digital'-oriented and not paperbased, if not then realising the objectives will be difficult.
After having done these assessments with respect to the use of IT, the extent of doing business digitally, the state of the art of recordkeeping and the level of theoretical thinking, it would be interesting to compare their results and see to what extent they strengthen each other or are conflicting. I will try to characterise them briefly with respect to recordkeeping.

Current
In this area we still have to deal with paper records and sometimes with backlogs. One of the backlogs in the Netherlands is the appraisal and selection of paper records. For many organisations a retention schedule or as we call it a selection document is still lacking. Based on the PIVOT-project, perhaps known to you, government actions or functions are appraised and decided upon what records have archival value and should therefore be kept. Although the PIVOT-project should be finished by now, it turns out that it itself has a backlog of almost 5 years for reasons I won't go into now. It should be clear that doing the appraisal is one thing, executing the selection is another. It also includes activities as arranging and describing the records. Indeed quite a lot of work. One of the objectives of this action line is furthermore to establish a controlled recordkeeping environment that prevents a new backlog. That should be achieved for instance through developing a quality assurance system and through classification schemes building upon the PIVOT framework.

Transition
The second stage is the transition phase from traditional to electronic recordkeeping. Most organisations probably will be found here. Paper and digital documents and records exist next to each other and we feel as if we have lost control. There is no real overview, because paper and digital are different worlds, managed by different disciplines. We still lack proper tools for managing electronic records, so-called new approaches are still paper-based, questions about juridical evidence are still unresolved, etc. It is the challenge we are facing.

New
The third stage or better level is the development of e-commerce or e-government, the creation of the

new, digital world itself. We do not know what this world will look like. What is needed to succeed is to understand the nature of doing e-business, both in government and in the private sector. Most organisations are still in the beginning of this stage, if started at all.

Sometimes business processes, mostly at a very operational level, are entirely digitized. When done properly it will have required business process re-engineering and taken quite some time and change. Recordkeeping however will mostly not be included yet, partly because records managers still are working on requirements. Achieving a business process that is carried out digitally, will require a radical change. It is doubtful whether this can be done gradually.

As a matter of fact looking at this reference model we could say every organisation is doing things at all three levels or stages and as such juggling with three balls, trying to keep them all in the air and still to proceed with the job to be done. A difficult situation, that in practice turns out to be almost impossible. Nonetheless we have to cope with this situation. It requires management at three levels, not only in achieving government online, but also to transform recordkeeping.

One interesting aspect at the moment is that most business processes are still following paperbased procedures, but are using IT in carrying out their business. That shows we are still in a transitional stage. When in those cases document management systems or records management applications are used, they help in capturing the electronic records that are created, but it is not yet a real e-commerce environment. That will happen when a business process itself has been adapted to the digital environment including recordkeeping.

The area on which the program Digital Longevity focuses is the transition stage. Five main activities have been defined in this area. They concern:

1. Establish recordkeeping Requirements and standards. It intends to identify functional requirements for recordkeeping based on the ISO framework and using the main existing initiatives (Oz-standard, Pittsburgh, UBC).
   In getting grip on these matters it is always helpful to break down the problem in different parts. In this case I would like to distinguish different levels, the recordkeeping function (perspective of the organisation), the recordkeeping system and the records management application. The record keeping function is a sub-function within information management as is shown in the diagram.

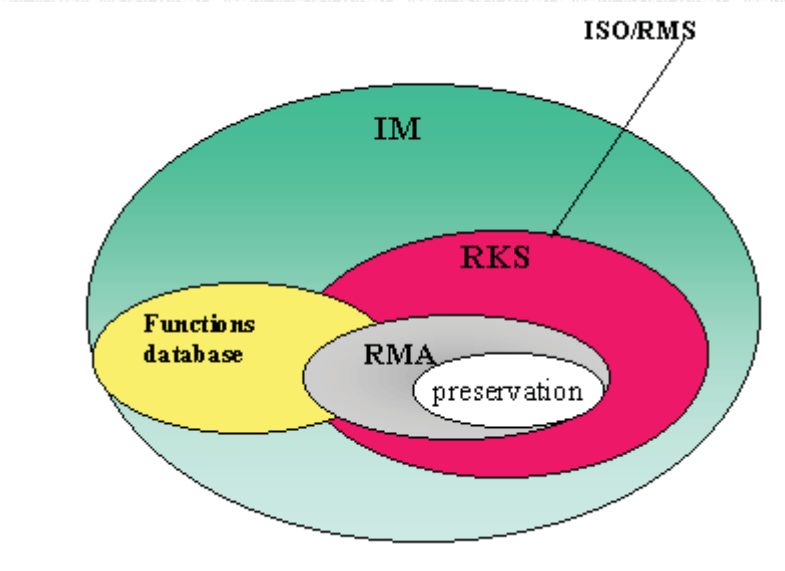


Figure 1 Interrelationship between Information Management and Recordkeeping

System

Part of the records management application is also a preservation function that takes care of the technical survival of the records.
Based on this distinction and on the ISO Records Management Standard (DIS 15489) for each of the (three) levels requirements can be formulated. This has been done recently.[11]

2. A so-called 'Demonstrator' project (a key-project of the program) which has as objectives to raise awareness among senior managers, and to show records managers, IT-people etc. on a practical level what is required and possible. It involves three types of audience: records managers and IT-people, senior managers, policy makers.They should be all involved as actively as possible.
   One of the main issues as already mentioned, is raising awareness with senior management, a difficult but important issue. Record keeping is like a commodity. Everybody expects it to be there, so it is not a political or 'cool' issue. Only when something goes wrong, one becomes aware of its importance.

3. Metadata: how to make government information and services retrievable and available. One of the key components is a reference-model for describing government functions (called 'functions database'/ in Dutch 'Handelingenbank'). This model should encourage a consistent way of describing functions, organisations and mandates throughout government. As such it can serve several purposes, e.g. enable electronic service delivery, retrieval of government information (including freedom of information!), and enhance transparency of government.
   In first instance this will be offering a structure for describing government functions, that is partly based on the standard set of recordkeeping metadata as proposed by Monash University. In the long run it should also lead to standardised ways of description.

4. Preservation of digital information. In a testbed-project that will last three years and started in September this year (2000), we will try to identify what preservation strategies are applicable, viable and most appropriate for preserving digital records taking into account the requirements for authenticity. This will be done by performing experiments.

5. Last but not least: come up with competencies (qualification profiles for records professionals) and subsequently facilities and curricula for acquiring the necessary knowledge and skills.

One of the issues as mentioned is to co-operate, to learn from other people and to establish platforms for information exchange or research. As indicated before co-operation with others is necessary. That concerns not only collaboration between records managers and other disciplines such as IT-people, public servants etc., but also collaboration between countries or governments. There are already some examples. Within the European Union there is the DLM-Forum, where disciplines as research, records management, business companies and government are involved, but nonetheless it is mainly on a professional level. There is however an interesting initiative that concerns the issuing of a message to industry and asking that sector to come up with solutions in different areas.

When I left Europe an answer from industry was received, telling the DLM-Forum that industry is already involved in this area and doing 'interesting' and useful things, but also asking more guidance about what is really needed and to articulate better requirements, rules, standards, specifications, etc. This is within the European Union, but I don't see reasons for not including other countries in these initiatives as well. In doing so we could try to harmonise requirements and achieve a stronger position towards the industry. It also can help in establishing a platform or forum for information exchange, developing things further, disseminating information about initiatives (in order to raise more awareness). An example for such a platform is the European Partnership on Electronic Records Research (EPERR) that tries to co-ordinate initiatives in Europe and supports collaborative research.

Another example is the recent establishment of the Archiving Metadata Forum in June this year. Recordkeeping metadata experts together with metadata specialists from other disciplines, such as multimedia and information resource discovery met in the Netherlands and discussed issues around recordkeeping metadata. One of the objectives of this platform is to identify a research agenda.[12]

Conclusion

Having said all this it is clear the world is rapidly changing. The use of information technology and of digital information will be predominant and affect also recordkeeping. That means the recordkeeping community will have to change and adapt. That change will not be easy. The new virtual world has fundamentally different characteristics compared to the paper world we are used to. So we have to understand these differences first before we can even move our activities and profession into this new world. Theories and ideas have emerged during the last decade that will help us in doing so. Now we are at the threshold of translating them into practice. In this transition phase we have to be aware of the fact that different situations exist next to each other, such as the paper, the hybrid and the digital scene. That is very difficult to manage, also because there is no control yet, or better no overview. In this respect the model I presented might help in distinguishing between the different levels or stages of developments.

Looking at 'Down Under' from the other hemisphere it seems as if you are already much further. Having your own records management standard, a continuum concept, a metadata standard, a manual for implementing recordkeeping systems, a competency standard etc. etc. I don't know exactly what reality is here in Australia. I guess there will be some resemblance with the Netherlands, a lot of talking about it, but reality is still much paper based and traditional. It also includes a lot of uncertainty about all kinds of issues.

I tried to provide you with some overview of the state of the art, a simple model to look at the situation, including some additional insights and views from another country and also another continent. Telling you we have the same problems except with another perspective, each European country building on its own tradition, having its own approach with some commonalities.

The point I wanted to raise was the gap between theory and practice and to try to bridge it.
In that respect I gave you an example of the approach we are taking in the Netherlands. It provides us with a road map to the future and to proper recordkeeping in a digital environment. It was perhaps a rather theoretical story, but we have to keep in mind that we are still building the new world. Nobody knows yet what it will look like. Nonetheless in the Netherlands we now have set out our course and milestones towards a new situation. In doing so we are focusing on the way ahead instead of on a final destination.

Finally it has to be clear that e-business cannot be done without proper recordkeeping, but it also means that the recordkeeping professional has to think out of his 'box'. He has to step back and become once again be aware of the purpose and the principles of recordkeeping. If he is able to do so, theory and practice might one day be going forward hand in hand.

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[2] Erasmus, 'In Praise of Folly', (London 1993), originally published in 1515.

[3] An interesting oration in this respect is *'Institutional Amnesia: A Paradox of the 'Information Age'*? (1999) by Christopher Pollitt, Professor at the University of Rotterdam at his inauguration.

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Richard J. Cox, *Searching for Authority: Archivists and electronic Records in the New World at the Fin-de-Siècle*, in: First Monday internet-journal, volume 5, number 1 (January 2000), see *firstmonday.org/issues5_1/cox/index.html*.

[5] ICA-Committee on Electronic Records, *Guide for managing electronic records from an archival perspective*, Paris 1997.

[6] See for instance ICA committee on electronic records, *Guide for managing electronic records from an archival perspective*, (Paris 1997). Recently a more elaborate version has been published: John McDonald, *Archives and current records: towards a set of guiding principles*, in: Janus (1999.1), p.108.

[7] ISO/DIS records management standard 15489.

[8] See for the reports on the first UBC-project: *www.interpares.org/UBCproject*.

[9] We have to bear in mind that interest in thinking about recordkeeping in a digital world still started with records managers and archivists, which is not a miracle because it is their job, but it also seem to make it a limited group of people that is interested.

[10] Although mainly in Dutch one can find some information about this program on the website: www.archief.nl/digiduur.

[11] The result will be published on the website of 'Digital Longevity': www.archief.nl/digiduur.

[12] See for more information: www.archiefschool.nl/amf.