Managíng electronic records from an archival perspective: some guidance

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7. Introduction

It is obvious that the emergence of information society has a big impact on the position and activities of archival instítutions. In many articles, publications and presentations one can find ideas, opinions and strategies which indicate how archives could deal with the consequences of the digital environment.
The awareness among archivists is growing, although there is some ambiguity, since most archival records are still on paper.

The next question is then what should be done ? My viewpoint will in line with this session of the conference be that of the archives as guardians of the cultural heritage. The main publication in this respect so far is the ICA *Guide on managíng electronic records from an archival perspective.* This guide presents strategies for archives how to position themselves and with what concepts they could approach the issue of electronic records.

I will try to present you an outline of the following aspects:
1. some of the main consequences of the use of ICT for record keeping and archives
2. an outline of the ideas in the ICA-guide (of 1996)
3. illustrating this with the approach in the Netherlands and the experiences so far
4. Finishing with some conclusions.

I will not discuss in detail the theoretical aspects, such as archival concepts and terminology. It is my intention to provide you with some help in developing strategies for electronic records. The ideas and experiences I have based my presentation upon are those of the ICA committee on electronic records, the DLM-Forum activities and the Dutch approach, namely of the program Digital Longevity in which I am involved.

2. Prob/ems and perspectives

Although ! think you have an idea of the trends in IT and of the most important consequences for record creation and record keeping I like to summarize a few of them which set the scene.

The main consequence of the use of IT with respect to record keeping is the changing nature of the record. The record has become virtual and elusive and has fallen apart into different components (consisting of logical and physícal aspects). This change has an enormous impact both on record keeping and archiva! management

Existing procedures and approaches (in record keeping) are no longer adequate and need to be reviewed both in record creating agencies and in archival institutions.
It requires to define the existing concepts such as record, contextual information or metadata, record keeping, archival function etc. again and more explicitly. Otherwise we will loose grip on the record, just because it is no longer a physical entity, but a virtual phenomenon. That is for archivists quite a paradigm shift in thinking because they are used to handle (archival) records as physical things. In a paper world this is of course understandable and norma). In an electronic environment it isn't. Nevertheless archivists tend initially to approach records in the same way. The first step of archivists in the Netherlands to deal with electronic records for instance is mostly to inventory the information systems, applications and computer files. Although this could be a first step towards more awareness, in order to be able to deal with electronic records properly requires another way of looking at things.
At the other hand many record creating organisations and archivists still prefer to retain records on paper. The existing uncertainties about juridical evidential value, authenticity, preservability etc. of records in digital form make them to choose the most secure way of preserving records. The ongoing developments in iT, such as the use of multimédia or complex databases, however create totally new types of documents, which include not only text, but also images, spreadsheets, graphics and perhaps even sound and video and therefore can not be printed on paper. These types of records require a new approach otherwise they are in danger to be forgotten and lost. As a matter of fact they are mostly not even considered as records at ali.

So these changes have effect on both government organisations which need to preserve records in order to ensure accountability and archival institutions which have to preserve records with archival value over time.

Next to this challenge there are opportunities for archives to use IT in fulfilling their mission. The díssemination of information about archival records and of the records themselves by Internet for instance is gaining more ground. The issue or challenge is to develop a coherent strategy which connects the developments within public administration with the task of delivering services to the pubiic.
This makes the challenge for archives even more complicated but also exiciting.
It also means that the impact of IT is not restricted to a certain kind of records, but that IT fundamentally infíuences the position and the activities of an archives.
So how can an archives deal with these new developments ?

I will now focus on the already mentioned ICA guide and the Dutch experience which could provide archives with some guidance in this respect.[1]

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[1] The European Commission has set up a multJdiscipiinary fórum, the so called DLM-Forum. There are severa! worktng groups for different issues.
The resuits their activities will be presented in publicattons (such as the *Guidelines on bestpractices for using electronic information* **(1998)), conferences and the website.**

3.   *The ICA approach*

One thing should be clear, there exists not one approach for archives to deal with electronic records. Each strategy will or should be determined by or tuned with the existing legal context and the position of the archives in this respect. The ICA-guide mentions four principies as basis for developing strategies.

The main principie of the ICA approach is that an archival institution should be pro-active, which means that it should be involved in the whole life cycle of records. The general idea behind this principie is that it has no use to wait until the (electronic) records will be transfered to the archives, because at that time it will not be possible any more to influence the conditions of the records (e.g. the context, structure or storage format).

If an archives wants to acquire authentic, reliable and preservable records, it has to formulate the requirements (about authenticity, accessibility and preservability), (the second principie) at the beginning of the life cycle in the so-called conception stage. So even before the creation of records.
The nature of electronic records and of information systems combined with the rapid developments in IT requires that these requirements are built into (record keeping) systems from the beginning .. otherwise the archives could be confronted with inadequate, unusable and incomplete (archival) records at the moment of transfer. These requirements are focusing on the documents or records themselves.

Apart from these requirements (and that is the third principie) an archives ought to manage the appraisal process and exercise intellectual control over archival electronic records. Again these activities should start also as early as possible in the life cycle.
In case of appraisal it is the idea to look no longer only at the records themselves, but in the first place at the business processes (or activities and functions of government organisations) in which they are produced. The main question in this so-called functional appraisal is: will there be produced in this or that business process records with archival value?

The last principie is to formulate requirements for preservation and access. Different from the second principie these requirements are more focusing on the (archival) management of the records.
A shift from the physical to a logical or intellectual (or virtual) levei has to be made by archivists.

Apart from these 4 principies the ICA-guide is also discussing the legal, organisational and technological implications for an archives. I won't discuss them now, but will try to illustrate the ICA approach with an example (not saying this is the nest way to do it).

The ICA recommendations are rather theoretical. The point is how to translate them into practical steps. Perhaps this could be best illustrated with my own experiences in the Netherlands.

4-.   An example

Since 1996 there exists a programme called 'Digital Longevity' in the Netherlands.

This program is initiated by the two ministries which are responsible in the field of record keeping and cultural heritage. The Ministry of the Interior is responsible for the coordination of information matters in government organisations and the Ministry of Education, Culture and Science for cultural heritage. The National Archives as part of the latter ministry is heavily involved.
In 1995 they both decided that closer cooperation would be necessary and useful and initiated the programme 'Digital Longevity' with the objective to formulate and establish a policy for long-term preservation, accessibility and retrievability of electronic records. Their initiative was supported by the Dutch parliament.
A program bureau was established which had to stimulate, support and coach initiatives taken by government organisations and archives, including provincial and municipal organisations (ali government leveis are involved). So the bureau has a facilitating role. The actual activities are to be carried out by the record creating organisations themselves, since they are responsible for adequate and proper record keeping.
Another activity of this bureau is to develop practical guidelines and other tools, which could support these initiatives and to ínitiate research in this field. The main *research* project so far is devoted to the interrelationship between the growing use of IT in society (and especially in government organisations) and the concept of accountabiíity. If the latter changes it will have its effect on the requirements for records and record keeping.

The activities so far have achieved that the awareness among sénior management within government has grown substantially and that the program bureau has become an essential expertise centre in supporting government organisations. Recently these results have even led to a reorganisation of the program structure. In order to coordinate the growing activities and the growing need of practical solutíons within government organisations the Ministry of the Interior will now set up an organisational network structure. This structure will have its firm roots in the governmental organisation, because the top-level management of each ministry is already assigned as being responsible for the implementation of the agreed requirements and strategies in the field of electronic record keeping.
This change in the organisational structure is also inspired by the necessity to make a clear distinction between the different responsibilities of both ministries.

The point is, how to guarantee this principie in a collaborative construct as the program 'Digital Longevity' ?
Will for instance the National Archives be held responsible for the activities or better the faults made within government organisations because it was involved in the program, which advised these organisations ? Another point is, could the National Archives inspect a government organisation and evaluate the records management of it still independently ?
The increasing politicai awareness of the problems to be solved is accompanied by an increasing awareness at the ministries of the Interior and Education, Culture and Science, of being politicai accountable for results in this field.
(by Parliament or Court of Audit).

As a result a more clear distinction is made now between the responsibilities of each ministry, including the National Archives, without however loosing the benefits of the co-operation.

The ministry of the Interior will focus on co-ordinating activities within government and stimulate cooperation.
The Ministry of Education, Culture, and Science, that means the National Archives will concentrate on setting up an centre of expertise with respect to record keeping and archival management. Furthermore it will take care of the development of archival requirements, regulations and the development of a digital repository (technical infrastructure for preserving electronic records over time).

What has been learned ?

What lessons could be learned so far from the experiences in this particulier example ?

Organisational   aspects:

1. an archives need to be involved in the whole life cycle of records and as such cooperation will be necessary; an archives can not do it alone and does not have to. This means also that the archives has to realise results outside its direct power.
   Several options or alliances are useful or even necessary:
   - with government organisations,
   - with research intitutions (e.g. universities),
   - with other archival institutions,
   - with industry etc.
   - nationally and internationally;
   International co-operation is an opportunity for archival institutions to acquire information and knowledge to apply in their own environment. I already mentioned the ICA, which establsihed committees especially on electronic records and on information technology. The European Commission has set up a mutlidisciplinary fórum, the so called DLM-Forum. The background of this initiative is that there are many disciplines involved in search for solutions and stratehies with respect to electronic records and in a boader scope with respect to information management. Archives, public administration, industry, both software industry and business companies, the latter having the same problems as public administration in preserving electronic records, and the research community are involved. Each discipline from its own perspective, but in fact they are ali looking at the same object. So a multidisciplinary approach could be useful or better will be necessary. There exists a program of ten points, which is carried out at the moment in different working groups. The results will be presented in publications, conferences and the website.[2]
   Parts of the solutions already exist, so you don't need to invent the wheel anew;
2. as such it requires a multidisciplinary approach; be aware that the issue of electronic records (or record keeping) is only one of the many aspects of implementation of IT into an organisation. Other issues such as information security, privacy, free access to information, copyright, TTP etc. are mostly considered to be more importam or urgent.
3. develop theoretical concepts only in close relation with practical experience: interaction between both is very important in order not to loose contact with reality and with the people that are working on it in government organisations (where the first steps should be taken). They are your main supporters.
4. use practical questions, as for instance how to deal with e-mail,   to get organisations involved even when it is not directly in the field of record keeping; initiate research in this respect (In the Netherlands: interrelationship between accountability and the use of ICT)
5. a knowledge centre is very important, where at least expertise concerning ali the aspects of record keeping both from the archives and the public administration is avaitable. This is very much appreciated by government organisations, because knowledge and expertise is still very scarce. In the Netherlands this turned out to have a synergetical effect.

Content:

1. Don't try to develop an overall system (although you might have an overall-concept), but incremental steps, modular approach; do not formulate too ambitious goals (but start for instance with model requirements for record keeping)
2. define fundamental archival concepts and terms record, authenticity, contextual information, metadata), terminology explicitly;
3. the perspective has to be first of ali the business process not the computer files or the records themselves. That makes it not only possible to talk more easily with people from government agencies (the business process what they understand and care about), but it

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[2] One publication is: *Guideiines on best practices for using electronic information,* Brussels 1998.

allows the archives of getting a better grip on the developments in the field of record keeping. In the conduct of the business process the records are created and used. So it will be easier to identify (and explain) the role of the records instead of starting with the records themselves and the way they are kept and managed. It also allows the archives to exercise intellectual control of the (archival) records

4. define requirements both for documents and for record keeping (archives management); a useful approach can be to use the perspective of quality assurance. In the Netherlands we are trying to develop a kind of certification system (certifying authority) for record keeping and records management. The inspection department of the National Archives will in this approach formulate the requirements (for archival records) and check them by carrying out audits periodically.

5. One aspect that should be especially mentioned is training; this is essential for success; the knowledge and expertise with respect to the innovative and new area of electronic records keeping is rather scarce and has to be build up. There are not many training courses yet. In the Netherlands only one (relatively short) course is available that meets in my opinion the demands of the new era. On the European level a working group of the DLM monitoring committee is trying to develop a list of core competencies the archivist should have in order to be able to meet the challenges of the information society. Together with it a model for a course on digital archiving is being developed, based on the Dutch course. It will include also a distant learning module. The model could be customized to the specific circumstances in each member state of the EU.

Conclusions and summary

As said there are many initiatives under way in this field. However a lot of work still has to be done. We are just in the beginning of a new era.

An ideal approach does not exist, but there are some general observations to make that could be useful.

1. The strategy of an archives will be determined by the circumstances an archives is acting in. There are legal, organisational and cultural aspects that have to be taken into account in this respect.

2. Furthermore it depends on the position and experiences an archives already has in dealing with the challenges of the digital age.

3. It also turns out that even when one thinks to have found an approach, this could be influenced by political considerations or developments such as is the case in the Netherlands.

So each archival institution has to analyse its position and define its objectives. In doing that it might use the experiences of other institutions and theoretical models. These can help in structuring things inb a useful way and to destill the best of all existing approaches into the own context, in other words to customize it.

Looking at the four principies of the ICA-guide and evaluating the activities of the Dutch National Archives, the program 'Digital Longevity' can be seen as a good example what could be done in this respect. Although not all the elements are already accomplished, there is certainly progress. There has been realised at least an orgnaisational structure that enables the National Archives to achieve its objectives and as such the four principies.

That is the perspective in which this article should be seen. Let me finish in emphasising two main points:

1. The archival principles and concepts do not change because of the use of ICT. What is needed is to make them more explicit and to define them again Cback to the roots' in fact). The next step is to implement them into the new environment, which means to give them a new design.

2. The real changes are taking places in the management of (digital) records. The new technology and its consequences demand a repositioning of an archival institution. To be able to carry out its mission an archives need to be pro-active, to be involved in the whole

life-cycle of records and to focus on the business process and the role of records, instead of the physical records (in a digital environment it is better to speak of the computer files). The tendency of most archivists is still to start there however. The main aspect here is to co-operate with the different disciplines within government organisations, such as IT-specialists, records managers and the staff. The starting point need to be the practical situation within government organisations, where the basis has to be laid for what an archives wants to have: authentic and reliable records !