

THE PRESERVATION OF THE ELECTRONIC RECORDS WITHIN THE ITALIAN E-GOVERNMENT PROCEDURES

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The legislative framework

Recent e-government legislation has had remarkable consequences both on the nature of produced records and on the concrete tools and ways for preserving activities and strategies. There is no doubt about the ever-growing impact of the new regulations on the possibility itself to preserve digital heritage. Records existing in digital form require a comprehensive understanding of the terms, responsibilities, systems of forming and preserving records. The matter is extremely complex, but the legislator (not only the Italian) has not always worked with coherence and sense of perspective. What is lacking is just a consistent framework of principles, general regulations, technical procedures and rules- all of which are at the opposite as unconnected fragments, not quickly available, not easy to read. Atomistic as it is, the Italian legislation for the sector is inadequate, often composed of untied, incoherent provisions which have often been passed in a confused way, being introduced within a series of others provisions aimed at promoting information technologies rather than at underlining and solving criticisms concerning the whole process of forming and preserving new types of electronic records.

There are enough grounds for drafting a general, well-reasoned point of view about the legislative framework at the national and community level- referring to the regulations that have been laid down in Italy in the last years for what specifically regards e-government legislation. We shall try to provide a comprehensive picture on both the specific legislation that was produced, and on the regulations that were updated by preservation institutions in order to take into account the wider undergoing transformations in public administrations' records production.

We shall provide a brief description of the major issues emerging from a general analysis of the current set of rules (particularly as far as it regards middle and long term preservation).

The Consolidation Act on Administrative Records (dpr 445/2000, Testo unico sulla documentazione amministrativa) and its operational rules (dpcm 31.10.2000) set a number of regulations which directly concern preservation:

- regular back-up procedures on removable mediums, which must be doubled and preserved in distant and safe locations;
- in case of digitalization process of paper records, all the information regarding records processing are fully part of the indexing and recordkeeping system when the digitized records replace the originals;
- system log (registration and backward assessment of any user and intervention); and preservation management of any information referred to changes of any database fields;
- all records must be readable throughout time, and all annexes must be identified in their connection to the principal record they refer to;
- data related to the record identification (i.e. those elements which identify the record's profile in a digital environment) are to be kept in the same message that sends the record, in the form of a standard XML file.

Those rules are not interconnected to each other and, imply different objectives and scopes not necessarily integrated. The specific provisions seem unable to offer a consistent framework. Some are aimed at identifying research tools, others at defining standard formats, others provide general principles that, however, may not produce significant and concrete results and whose meaning may not be understood since they're not presented within an integrated framework. An overall vision is lacking. Besides- considering the way in which legislation has consolidated – it is clear that the rules here presented and the ones we shall present in the course of this discussion are mainly the

result of interpolations demanded for by archivists and cultural operators, rather than the mindful result of an overall due consideration.

Also the guidelines on the application of the rules related to the electronic records management recently issued by the decree of the Minister for Innovation (DM October 14th 2003), that were supposed to provide a general structured framework, partly suffer from the same limits with reference to the preservation function- nevertheless, they represent a (even if not fully successful) attempt to provide overall behavioural and organizational principles). As far as it concerns specifically long-term preservation problems, such regulations say that:

- processed records requirements imply that the records are unquestionably identified and there exist tools and elements that guarantee their integrity: the author's identity (both as juridical body and its physical representative), subscription, eligibility to the ID procedure as identification tool, accessibility, readability, inter-exchangeability;
- formats must ensure that structure and contents cannot be changed: it is therefore forbidden to produce processed records which contain "macro-instructions or executable codes that may activate functions which could alter their structure or contents";
- in case a digital record contains images, sounds or video as integral parts, they have to be "irreversibly" included;

The Directive on the use of e-mail systems, issued by the Minister for Innovation on November the 22nd 2003, seems to follow the same desire of setting rules and bindings in the field. It obliges to adopt preservation methods for received messages (though it doesn't further explain in which methods are to be used), in relation to records typologies and retention periods. But it doesn't mention (as, unfortunately, it would be impossible to do in such a specific regulation) any kind of common provision and shared rule.

The Decision 11/2004 on digitization of paper records (the fourth issue of operational rules that, since 1994, have defined- with little success - conditions that guarantee the replacement of original hardcopies with legally recognized electronic records) establishes further principles with reference to the preservation:

- digital records are preserved via optical media and at the end of the procedure the time stamping and the Preservation Officer's digital signature have to be affixed on the set of records; the Officer thus certifies that the procedure was correctly carried out (also in case of migration process, which requires- for processed records or for the so-called "unique originals" analogical records¹- the time stamping and digital signature to be affixed by a government official who certifies that the final record is authentic with reference to the original one);
- the tasks for the specific role of the *Preservation Officer* are specified. He/she has to:
 - define the characteristics and requirements of the preservation system according to the records' typologies (analogical and digital);
 - manage security and tracking procedures, also in order to ensure that records can always be presented;

¹ The question of "unique originals analogical records" deserves a few pitiful words. "Pitiful words" not for the general principle, which comes to be useful on the organizational level and could have led to positive developments, but for the surreptitious way of dealing with a complex problem and for the inadequate allocation of the provision- which, at the end of the day, may not produce results and could even lead to a useless or dangerous misinterpretation. Technical provisions do not represent the appropriate way to introduce elements of definition in the nature of administrative records, capable of determining and characterizing their "sole" and hence "original" nature, and modify the terms of the government official's actions aimed at validating copies. It is, in fact, an aspect of the matter that should be solved within the framework of a general and organic legislative action, capable of creating unquestionable statements and, hence, of directing creators, managers and preservers.

- archive and make available all data describing the set of records' content, and contain the Preservation Officer's ID and all information on security copies;
- provide for and make available an archive of used softwares;
- verify that the system is correctly working;
- take the necessary measures to guarantee the system's physical and logical security;
- ask for the presence of a government official, when necessary;
- define security procedures and produce the related documents;
- periodically verify, with a maximum deadline of five years, the effective readability of preserved records.

This regulation basically seems to entrust each solution to a specific accountable figure, though it does not specify what kind of expertise and technical knowledge are required to hold such a position: in other words, it does not clearly say whether it has to be an archivist, a records manager, an IT specialist, etc.. Moreover, his/her decision-making powers and role within the administrations are not as clearly specified as his/her tasks are.

The CNIPA 11-2004 Decision also says that this delicate powers in preservation matters can be entrusted to a third party, according to an outsource procedure, defining conditions and limits with scarce precision- for example, binding powers and forms of control are not specified:

- the digital preservation officer can be outsourced to one or more persons, whose expertise and experience would guarantee that operations are correctly performed, to partly or fully carry out the above mentioned activities;
- the digital preservation procedure can be partly or fully outsourced to other public or private bodies, which will have to observe legislation in force;
- in public administrations, the government official would in any case be the director of the department in charge for records preservation, or another person formally appointed by him/her.

There are various critic aspects in such a matter, particularly with reference to the decision of outsourcing the service- though we understand how complex the problem is. It would have been of vital importance to decide that, in case performances are delegated, there has to be an evaluation by the delegating body. No legal entity can fulfill preservation duties without adequate forms of survey and control.

As a matter of fact, a general exam of the regulations leads to the conclusion that some of the most interesting guidelines are not to be found in the specific provisions, but can be deduced in the framework of the overall legislation on records management- which is currently undergoing a new, and not fully understandable in its motivations, revision². Regulations contained in the Consolidation Act on Administrative Records (dpr 445/2000 Testo unico sulla documentazione amministrativa) for what concerns records management and certain obligations in entries and transfers during the different records management phases, seem to be particularly useful. Specifically:

- regulation dpr 445-2000, art. 62, which establishes the compulsory creation of a service for archives, records, and records-flow management which has to be entrusted (in this case, it is specified) to a person of high profile with archive technical expertise; and which establishes such tasks especially in terms of controlling and guaranteeing the records system's quality

² A "code of digital public administrations" is currently being prepared. Differently from the current situation, this code will split provisions into different regulatory levels - with the risk of losing once again and forever that overall vision which today is largely possible and which nevertheless represents the bare essentials in a technical field of great and growing complexity.

and consistency and of the general requirements for such a system (classification plans, access control, etc.)

- regulations dpr 445-2000, art. 67-69, that determine rules, tools and obligation with reference to current and semicurrent records keeping and transfer, among which:
 - movement control (in a digital environment this comes at least in the form of managing a log file for access);
 - obligation to maintain the original records' order during the different management phases and to ensure the preservation of the original finding aids (records' ID procedure database, files lists and inventories,, indexing tools, etc.)

Another central issue is faced in the regulation which establishes- within the framework of operational rules (dpcm October, 31st 2000)- the obligation to prepare a records management manual (a text on policies and guidelines related to the records system at any phase of its management and keeping), including security provisions and historical archives preservation and management provisions.

The recent regulation on the protection of cultural heritage has also focused on such obligations. Particularly, the dlgs 490/1999 and the following code on cultural heritage approved with the dlgs 42/2004 say that archival institutions should also actively control and verify current archives (classified as cultural heritage to be protected) and, hence, new records systems. Pretty heavy penalties have been established in case of inadequate management policy.

Guidelines

In terms of guidelines and technical and operational rules, the Italian government has provided various support tools, especially with reference to current records. Such tools are included in the text known as *Gedoc n.2. Guidelines to the implementation of digital ID procedure systems and records-flow management*; and in the circular 40/2002 issued by AIPA (Autorità per l'informatica nella pubblica amministrazione, today transformed into CNIPA, Centro nazionale per l'informatica nella pubblica amministrazione) which provides detailed technical criteria for inter-operational XML-based systems. Those texts are very precious, considering that records preservation conditions are strictly related to the definition of quality criteria as far as it concerns the documentary system design and creation and, even more, engineering and drawing up of the systems. It must anyway be said that, also in this case, institutions have focused on forming related aspects and have completely neglected problems related to long-term preservation.

Training activities

In the archive and records field, institutions have carried out a great number of training initiatives: the Authority for Informatics has trained 1.500 professionals at various levels (experts in organization, managers of documentation services, archive operators) for government administrations, offering a thorough ad-hoc training. Materials and teachers have been carefully evaluated also from the archival point of view- both during the drawing up phase of the training project, and while classes were held. Quality was in this case guaranteed; still, the low level of existing records systems should require further efforts in order to fill up the gap. Anyway, materials also provided specific- though limited- information on preservation functions.

Conclusions

The problem's levels of complexity and the deficiencies, shortcomings, inconsistencies of the approved legislation, makes it impossible not to evaluate the existing e-government legislative system as inadequate. It is hence crucial to take, as soon as possible, the following measures:

- "political" initiatives at the national level, in the form of recommendations and guidelines, to raise awareness amongst legislators, producers, public opinion.

- common strategies and policies for institutions dedicated to cultural heritage preservation (archives, libraries, audio-visual, documentation centres, etc.) based on acknowledging the main relevance of organizational problems and on the need to adopt standardized procedures aimed at:
 - creating reliable digital repositories,
 - defining precise areas of accountability,
 - evaluating, studying and limiting costs with respect to preservation objectives and to their feasibility,
 - upgrading skills of all technical staff through continuous e-learning programmes,
 - including updating contents and teaching methodology.