

**Archival institutions and competence needs:
what will be expected from the archivist of
tomorrow?**

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archivists must embrace the disruption

- “Reflecting on the challenge of digital records, [...] what do archivists need to do to make sure we are not rendered obsolete by rampant technological change?”
- One option might be leave the challenge of digital archiving to another profession, or rely on another, newer kind of memory institution to figure out how to manage digital archiving. However, at The National Archives we believe that archivists are best placed to curate and sustain digital archives, so long as **we embrace the disruption** [...].”

John Sheridan, UK National Archives digital blogger, November 2017 ,
<http://blog.nationalarchives.gov.uk/blog/digital-archiving-disrupt-or-be-disrupted/>

three main reasons why digital archives will survive thanks to archivists

- It is a question of **trust**: the archives and the archivists are trusted institutions and trusted professionals
- It is a question of **longevity**: “Archives aren’t ephemeral, fly-by-night operations – we are long-established institutions, looking after collections that society and the state have viewed as important and have already kept for hundreds of years”.
- It is a question of **capacity to change**: “over the years we have grown and changed, as have our beliefs about what ‘accessibility’ should look like. Advances in conservation science have altered our practices and our standards as we determine the best ways to preserve our collection”

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new technological environments , new users expectations - 1

- the technologies evolve and change more rapidly than our capacity of reacting and reinforcing our competence basis: it is the case of **the continual transformation of the digital forms** of records created by mobile channels such as whatsapp, twitter and instant messages, data extraction;
- the long economic crisis in the last decade has weakened also the archival institutions and the professional associations, while globalization and big providers of digital services have radically **transformed the environments, the expectations, and the behavior of users**

new technological environments , new users expectations - 2

- the **requirements for efficiency are increased** while the resources decreases as well as the attention for the stability;
- **services for access should be intuitive** even if the platforms are even more complex than in the past, are **vertical** and **unable to provide inclusive and integrated solutions**,
- **transactions must be simple and automatic**,
- **results from retrieval** in the ERMS must be **immediate** but are also expected to **be correct, thorough and complete**,
- preserved records are asked to be available **not anymore in fixed form but with the capability of extracting data and with re-use functions**

disruptive digital archives

- able to adapt themselves according to the emerging digital scenarios,
- smart and flexible,
- well supported by digital teams and
- focused on the need for the early control of the government current records

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the Italian legal framework for archives

- Since the first national legislation approved in the last century on records and archives management for public administrations, the specific Italian legal focuses on a general principle: **public records are protected since their creation**.
- **Early protection** is the main measure to ensure both the quality of their **evidential value** and their permanent preservation as **accessible and authentic resources**.
- This principle has been **renewed and reinforced** in the ICT environment:
 - current **records** in **any digital form** (databases, textual records, websites) are today, more than in the past, a **strategic tool** for the improvement of public administrations services, their efficiency and accountability
 - **The digital records preservation is recognized a crucial function for interoperability over time both for active, semi-active and inactive digital archives**

the Italian legal framework for digital records creation and preservation - 1

- The legal framework is based on a series of **standardized rules and tools** with the aim of ensuring **sustainability** and **flexibility**. In particular, the framework includes:
 - **An interconnected group of acts and rules** which implies the adoption **of internal policies and manuals for each public agency** (in compliance with a general template approved in the regulations);
 - **A series of guidelines included common glossary, recommendations of formats, a scheme for the archival information package**

the Italian legal framework for digital records creation and preservation - 2

- A **certification process** compliant with international standards approved in 2013 such as ISO 16363 and ISO 16919 on auditing of digital repositories and with national standard.
- A **detailed series of requirements for assessing the quality of the creation and preservation processes**, based on ISO 15489 and ISO 14721 OAIS;
- The **manual of preservation**: goal and national detailed template;
- **General guidelines** for the whole process (improvements are required to be more practical)
- the list **of professional profiles** to be present in the digital repositories and their **responsibilities**

profiles recommended by the guidelines on DP

- General requirements
 - stable contracts (not less than 3 years for the main relevant profiles)
 - Definition of university degree and number of years (3 to 5) for experienced people (5 years are required without academic degree)
- Profiles:
 - **Responsible for the digital preservation with archival knowledge** (specific academic degree and 2-3 years of experience/5 years without academic degree)
 - **Responsible for the digital preservation** (generic academic degree and 5 years of experience/8 years without academic degree)
 - **Responsible for the repository information system and security** (academic degree in scientific topics and 3 years of experience/5 years without academic degree)

a national standard for the profile of archivist and record manager (UNI 11536)

- A national standard has been approved in 2014 for the archival profession (a similar standard concerns the librarian sector): it is based on the European framework (EQF) dedicated to qualify professions focused on processing data and documents for information and documents:
- It is dedicated to the archival profile and includes functions and tasks for the record management and digital preservation

certified digital repositories: state of art

- At present **more than 70 public and private repositories** (<http://www.agid.gov.it/agenda-digitale/pubblica-amministrazione/conservazione/elenco-conservatori-attivi>) have been accredited against the rules and guidelines adopted at national level and are able to provide a certified preservation system.
- The repositories **manuals are published and available**
- One of the best example is the manual adopted by Regione Emilia Romagna:
 - http://www.agid.gov.it/sites/default/files/documentazione/manuale_di_conservazione_ibacn.pdf

interdisciplinary and professional coordination are the basis for a solid

- In the course of these long twenty years **archivists** have identified a **qualified list of requirements based on only on the international standards but also on the achievements of the best research projects** (InterPARES, PLANET, CASPAR, DELOS, APARSEN).

requirements in the Italian regulation for digital preservation

- **the information on provenance** have to be maintained not only in the profile of the records to be submitted for preservation (on the basis of an explicit obligation of the Code for digital administration, approved in 2005), but also **because of its relevance for verifying the records authenticity** (identity, integrity, security);
- the validation over time of the record implies the **documentation of its integrity**;
- **the role of processes and workflows documentation is crucial**;
- **policies and manuals must be formally approved** (according to a common template adopted at national level) in each public agency and each private and public digital repositories as part of **formal documentation of a well developed and implemented** preservation environment

the positive consequences of new regulations

- The approval of rules and standards as part of formal legislation has implied many consequences on the Italian records management function. In particular:
 - the obligation of formal definition of procedures for RM in each public agency has increased the **quality of ERMS tools in place and of related software procurement**.
 - **the standardization of the documentation relevant for records creation and for preservation processes** (manuals of records management, manuals of preservation, submission reporting, formal delegation of responsibilities) has provided the **simultaneous qualification of controls, of professionals and of training and educational profiles and a better definition and distinction of responsibilities** for each phase of digital records cycle.

policies for evidence in the preservation processes - 1

- The ***manual for records management procedures*** (*manuale di gestione*) is an obligatory requirement for the public administrations since October 2000
- The obligation of the manual for ERMS has been recently confirmed by the regulation of the electronic registry system (2013, *Technical rules on electronic registry system*) and includes rules on the records creation, capture, classification, filing, appraisal, archiving, digitization processes and preservation (both in paper and in digital form).
- The ***manual for digital preservation*** (*manuale di conservazione*) is a new requirement for any digital repository which is responsible for the preservation of public and/or private records, even if internal to the creator itself (2013, *Technical rules on digital preservation system*);

policies for evidence in the preservation processes - 2

- The manual for preservation **describes in details** the organizational obligations, the overall architecture, the infrastructure, the processes, the security measures and all the information required for the long-term digital preservation system management and its auditing (when appropriate or required).
- **Submission reports** (*rapporti di versamento*) and standard models for creating Archival Information Packages (according to OAIS model) are required for transferring digital records to the repository responsible for preservation and for their archiving (2013, *Technical rules on digital preservation system*).

the compliance of the documentation with the standards and its role

- The documentation (specifically the reports and the manual for digital preservation) has to be compliant with the international standards:
 - ISO 15489 on Record Management,
 - ISO 14721-OAIS,
 - ISO 16363 on the auditing for repository certification) even if this compliance is not part of the regulation but only suggested in the annex
- The increasing role of the documentation implies the **recognition that the authenticity problems cannot be delegated only to technological solutions**, like digital signatures and seals, has increased the institutions' awareness for the risks connected to the long-term protection of digital resources and for the need of adequate investments in this area both from the **conceptual and organizational points of view**

open challenges and open questions - 1

- How to define **priorities** specifically when the financial resources are limited and the strategies are not sufficiently detailed?
- In case of more institutional officers involved in the sector (ICT profiles, record managers, archivists) how to handle the **coordination of responsibilities** for digital preservation, specifically when the choices imply a costs/benefits analysis and strategic plans?
- **How early must the creator submit the digital records to dedicated repositories for preservation** to ensure the real protection of the electronic records and to avoid an expensive redundancy?
- In case of an early submission and ingestion, how to avoid the **fragmentation** of the records and information flows?
- **Is the distinction of the traditional phases** (active/semi-active/inactive) in the records management, keeping and preservation still **useful and sustainable** in the digital environment according to this new scenario? How is it possible to support it in the application environment? How to manage the responsibilities involved in the different phases?

open challenges and open questions - 2

- How to ensure the **neutrality of the preservation in the future**, if the submission is planned in an early stage?
- Which level of **granularity** has to apply for data collection and management in the preservation processes and dissemination (Info Description and DIS)? What is the role of traditional **finding aids and how to revise the archival information systems**
- How and what **to appraise and select in digital environment** (specifically in case of chronological accumulation of records at the registration phase when the aggregations are not available and managed or where **classification schemes and file systems are missing**)? For instance, how to guarantee the preservation of relevant emails when not included in the registry system?
- **How many times the appraisal will take place in the digital environment?**
- Finally, are the **professionals and the available applications able to document** all these steps and actions according to a standardized approach and ensure **interoperable evidence for authenticity assessment**?