STANDARDIZATION AND INTEGRATED DOCUMENT AND RECORDS MANAGEMENT (IDRM)
ISO 30300, ISO 30301, ISO 14641 AND THEIR CONTRIBUTION TO THE IMPLEMENTATION OF INTEGRATED DOCUMENT AND RECORDS MANAGEMENT SYSTEMS (IDRMS)

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■ Organizations produce and receive an array of documents on a daily basis to conduct various activities. In view of the increasingly growing document production, these organizations tend to establish document and records management systems in order to mitigate the various problems involved in managing and preserving analog and digital documents. In Quebec, organizations tend to implement integrated document and records management systems (IDRMS), aiming at managing both analog and digital documents and records concurrently. The complex nature of such systems calls into question their successful implementation, hence the need for setting guidelines or a normative framework that any organization would use to monitor IDRMS implementation. The standards proposed by the International Organization for Standardization (ISO), namely ISO 30300 and ISO 30301 for records management systems, as well as ISO 14641 for the legal and probatory electronic archiving of documents, are a relevant normative framework for the successful establishment and the effective use of IDRMS. This article outlines the contribution of those standards to the implementation of such systems, based on Quebec's archival experience in documents and records management.

■ Les organisations produisent et reçoivent une grande variété de documents dans l'exercice de leurs activités. La production documentaire générée quotidiennement est en croissance exponentielle, engendrant ainsi des défis majeurs quant à sa gestion et à son contrôle. Les organisations québécoises, conscientes de ces défis, tendent à mettre en place des dispositifs technologiques dédiés à l'optimisation de la gestion documentaire. Il s'agit des systèmes de gestion intégrée des documents (SGID). De tels systèmes visent à gérer les documents analogiques et numériques tout au long de leur cycle de vie. Étant donné le caractère complexe des SGID, leur mise en place s'avère relativement laborieuse. Il est ainsi crucial de se doter de lignes directrices afin de guider l'implantation des SGID et de contrôler leur utilisation. Les normes ISO 30300, ISO 30301 et ISO 14641 constituent un bon référentiel normatif sur lequel toute organisation se basera afin de piloter la mise sur pied des SGID. Cet article présente ces normes respectives et nuance leur apport à l'implantation de ces systèmes, compte tenu des spécificités du milieu organisationnel québécois.

■ Organisaties produceren en ontvangen dagelijks een grote hoeveelheid documenten in het kader van hun activiteiten. Het steeds groeiende aantal documenten dat aangemaakt wordt in aanmerking genomen, gaan organisaties document- en recordsmanagementsystemen invoeren om de problemen in beheer en bewaring van analoge en digitale documenten het hoofd te bieden. In Quebec zijn organisaties geneigd om geïntegreerde IDRMS-systemen te implementeren om tegelijk digitale en analoge documenten en records in al hun levensfases te kunnen beheren. Door hun complexiteit is het introduceren van IDRMS-systemen een vrij zwaar proces, vandaar de nood aan richtlijnen of een normatief kader dat elke organisatie zou kunnen gebruiken om hen te implementeren en goed te gebruiken. De ISO-normen 30300, 30301 en 14641 vormen een goed referentiekader om het invoeren IDRMS-systemen te sturen. Dit artikel beschrijft deze verschillende standaarden en hun bijdrage tot de implementatie van dergelijke systemen, rekening houdend met de specificiteit van de context van organisaties in Quebec.

In the course of their daily activities, organizations produce a large array of documents in both analog and digital media. Such documents are used for purposes related to decision-making and routine activities. They also constitute a highly valuable informational asset reflecting the existence of organizations and their achievements through time.

Wishing to establish good information governance by maximizing documents' role in decision-making, to develop the organizational memory and to comply with the regulatory requirements regarding document and archives management, Quebec organizations tend to improve their documentary practices by adopting new tools and implementing more powerful systems. With the overwhelming growth of digital documents, concurrently with those existing in analog media, controlling the exponential hybrid documentary production becomes a difficult task. In this perspective, Quebec organizations started to adopt a new archival practice, called integrated document and records management (IDRM). As its name indicates, such practice consists of concurrently managing documents in both analog and digital media. Technically speaking, this relates to the management of analog and digital documents by the same system called an integrated document and records management system (IDRMS). The merits of IDRM systems are numerous for organizations, such as the optimal management of documents in order to improve individual and organizational performance. However, the successful implementation of IDRMS is called into question: some organizations experience difficulties regarding the establishment

of such systems, given their complex nature and the enormous efforts required from the actors involved in this process. Steering tools are hence needed in order to monitor those projects, so as to make sure they are conducted in the best conditions. Therefore, national and international standards are relevant tools to conduct such complex projects.

The contribution of standardization to the implementation of IDRMS has been subject of little academic research. This article highlights the most current standards in the area of archive management, namely the series of standards *ISO 30300* and *ISO 30301* (2011) on the implementation of management systems for records (MSR) as well as standard *ISO 14641* (2012) on the probatory archiving of digital documents. More specifically, we will focus on the contribution of each of those standards to the implementation and use of IDRMS in the light of the existing technical, managerial and legal requirements.

Attempt will be made to answer the following set of research questions:
- What is the scope of integrated document and records management (IDRM)?
- What is the place of IDRM in archival science?
- What are the characteristics of an IDRMS?
- What are the merits of standardization?
- How do standards ISO 30300, ISO 30301 (2011) and ISO 14641 (2012) contribute to the implementation of IDRMS?

Integrated document and records management (IDRM)

Integrated document and records management (IDRM) is a modern archive management practice which ensures the management of the entire life cycle of documents, regardless of their media, from their creation to their disposal or permanent preservation. Technically speaking, this documentary management is ensured by the same tools and is integrated in a single computer-based system. From an operational point of view, an IDRMS is a sustainable management system which components are integrated in order to grant, to the qualified individuals, access to all the relevant information documenting the activities of an organization. Roberge posits that the concept of IDRM is more generic than that of EDRM (electronic document and records management). The latter refers to the entire management cycle of digital documents, from their creation to their preservation or disposal.

An overview of IDRM

IDRM appeared in Quebec as a response to the requirements regarding the authenticity, reliability, integrity, exploitability and security of documents (analog and digital) produced by organizations. Bibliothèque et Archives nationales du Québec (*BAnQ*) and the Center of Shared Services of Quebec (*Centre de services partagés du Québec*) were the first organizations to adopt a conceptual model related to the management of documents and records of in both analog and digital media.The development and application of this model were in the aim of minimizing the intensity of problems related to the management of the documents existing in a hybrid environment. Many organizations worked out various document management policies, such as: *Canadian national heritage Digitalization strategy*, adopted by Library and Archives of Canada (LAC), *the governmental framework of integrated document and records management* (Cadre de référence gouvernemental en gestion intégrée des documents), worked out in 2004 by Bibliothèque et Archives nationales du Québec, in collaboration with Yves Marcoux *et al*., as well as the training module proposed by the International Council on Archives, entitled *UNESCO Digital Preservation Initiatives Module,* published in May 2016. Also noteworthy are the projects known at the international scale, targeting the management of digital documents, namely InterPARES (*International Research on Permanent Authentic Records in Electronic Systems*), aiming to ensure a long-term digital preservation of documents and to maintain their authenticity, as well as the Hector Project (*Hybrid electronic Curation, Transformation and Organization of Records*) launched in Belgium for the management of analog and digital documents by a single hybrid system. Consequently, it stands to reason that organizations are increasingly aware of the risks arising from the management of digital documents and their long-term preservation, and that, in compliance with the regulatory environment. If such initiatives and policies mainly concern digital documentary production, the decentralization of analog documents still remains a serious problem in organizations. Despite the "paperless office" trend, it remains impossible to dispose of all documents in analog media: some of them must be archived in virtue of their value (vital documents), while others must be so because the media, itself, has a historical significance. The absence of a clear disposal policy is also a reason while organizations tend to keep their analog documents. In order to constitute and preserve the organizational memory becoming more and more vulnerable due to this decentralization as well as the instability of digital preservation media, it is important to adopt rational measures aiming to ensure the management of this hybrid documentary production. Hence, IDRM seems to be the appropriate praxis to ensure the management of both analog and digital documents. In concrete terms, it aims at achieving the following objectives:
- Ensure efficient, integrated and corporative management of documents as informational

resources, regardless of their media;

- Facilitate information retrieval, in its diverse media, thanks to the use of a unified filing plan and, as far as possible, a thesaurus with a list of the key words and names of individuals and corporate bodies;
- Reduce the problems involved in information storage, by the use of a retention schedule listing the preservation rules and the guidelines of the disposal of each document;
- Limit the risks related to the loss of vital essential information thanks to the establishment of access rules and the obligatory identification of IDRMS users in order to protect the documents against unauthorized alteration;
- Comply with the legal and regulatory requirements related to document management;

- Preserve the organizational memory made up of the documents reflecting the activities and achievements of organizations through time.

IDRM, Records management and archival science

Being a part of the modern archives management, IDRM aims at reinforcing the foundations of archival science by providing measures to comply with the four archive management requirements, namely authenticity, integrity, reliability and usability. Unlike records management (RM), which relates only to the management of active and semi-active records, IDRM relates to the entire life cycle of digital and analog documents from their creation up to their disposal or their permanent preservation. IDRM is hence perceived as the most recent archival practice, since it involves various documentary resources, regardless of their media. Organizations adopting such practice will ensure an effective document and records management at lower costs, since their documents are concurrently managed by the same system.

Functions and components of IDRMS

Functions of IDRMS

As aforementioned, an IDRMS aims to manage both analog and digital documents by a single computer-based system. Unlike *Electronic document and records*
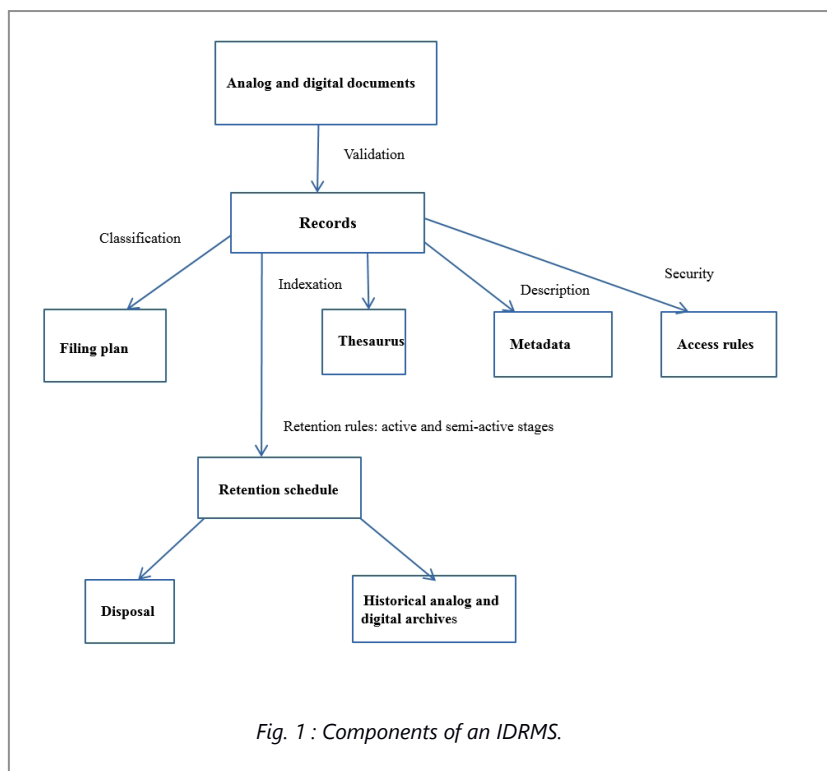

Fig. 1 : Components of an IDRMS.

management systems (EDRMS), an IDRMS concerns not only the management of records, which means archives at their active and semi-active stage, but it also involves historical archives and their long-term preservation. It is hence a hybrid system ensuring a set of functions specific to the document and records management systems, as can be seen along the following lines:

Identification and capturing: each document entering the system should have a code or a number used for its identification.

- *Description*: using appropriate metadata, such as: the title, the name of the record's producer, the processed activity, etc.
- *Classification*: it is about the assignment of a classification reference number to the document based on the established filing plan, as well as the relations between this document and the file to which it belongs (organic links);
- *Retrieval:* in order to retrieve documents and records, they are to be indexed, using the appropriate keywords either in natural or in a controlled language;
- *Access management:* thanks to access rules, the privacy and the confidentiality of documents and records are maintained;
- *Management of documents and records lifecycle*: an IDRMS permits a complete documents and records management, from their creation or recording up to their permanent preservation or disposal;

- *Archiving*: the system adopts secured measures allowing long-term archiving so that documents could be protected from loss and alteration;
- *Disposal*: this function is conducted in compliance with retention rules and the disposition established in the retention schedule for each document.

Components of IDRMS

Like all information systems (IS), an IDRMS includes a set of interacting elements in order to carry out one or more specific tasks. An IDRMS receives documents produced or received by the organization. Such documents are to be managed in order to provide useful information assets for decision-making purposes. To do so, those documents are validated as records in the system. They are then described through various metadata, including the title, the creator's name, the described activity and the date of creation. Those documents are classified in the corresponding category in the filing plan representing the major functions of the organization in a logical structure, taking into account the organic links between the documents (e.g. belonging to the file of the same creator or the file gathering documents on the same topic, etc.). Then, the documents are indexed by controlled terms in order to facilitate their retrieval. They are also assigned access rules to ensure their confidentiality and control their security. The retention schedule specifies retention periods for active and semi-active records. After the semi-active stage, only documents with historical value are to be kept in the system for long-time archiving. Those operations should be done in compliance with the organizational standards and procedures, as well as with the legal and regulatory environment of the organization. As a result of those "documentary" interactions, the IDRMS produces documents and records that are well-managed, classified and indexed, with access rules. Such documents and records are used for decision-making purposes and the achievement of organizational daily activities.

IDRMS implementation: feedback

The professional literature on modern archive management outlines IDRMS implementation feedback. Many authors have exposed an overview of the IDRM projects carried out within their organizations. As regards the advantages, Bourhis and Couture suggest that the implementation of IDRMS has promoted a better management of documents and records and their effective retrieval by employees, thanks to the use of a uniform filing plan as well as a clear and unified indexing language. Moreover, the use of a retention schedule with well-defined rules facilitated archival appraisal. This made it possible to reduce the volume of the documents stored in the servers so as to keep only those that the organizations need for conducting their strategic and operational activities. As for reported difficulties, they are mostly related, according to Couture, to the considerable time required for the execution of IDRM projects due to the complexity of the systems being conceived and implemented.

In order to be successfully implemented as an organizational IS, an IDRMS should (1) be interoperable with other IS, (2) be aligned with the organizational strategy and (3) offer documentary functions matching the needs of the organization so that it could be used by employees to conduct daily activities. Henceforth, any organization ought to apply specific guidelines related to the implementation of IDRMS. In what immediately follows, we will discuss the merit of standardization and the contribution of standards *ISO 30300, ISO 30301* and *ISO 14641* to the successful achievement of IDRM projects.

Contribution of standardization to IDRM

Rationale of standardization

Standardization is the elaboration of guidelines, recommendations or regulations to control practices related to a specific domain of activity. This act is established by consensus where many specialists with shared interests get together, join their efforts and share their know-how for the benefit of their community. National and international standards are the result of such consensus. Standardization is a key factor of innovation: it reflects the degree of maturity of the actors involved in a given field, their awareness of the challenges and their desire to overcome them by the establishment of standardized practices for a better output and a more visible outreach. It also facilitates the communication and exchange of the ideas and practices among international communities affiliated to the same field of specialization.

In archive and records management, standardization occupies a key position. Dupre Barnes stresses the importance of the standardization of RM practices and assumes that international standards are a means for the dissemination of technological innovations as well as assessing compliance with generally accepted quality requirements. It is thanks to standardization that the know-how related to document management is disseminated worldwide, since working methods are harmonized. Bolton points out that standards constitute a key mechanism for the control of the tools designed for the development and improvement of document and records management programs and policies.

The following section outlines some standards published by ISO (International Standard Organization), namely the ISO 30300 series of standards: *Information and documentation - Management systems for records: Fundamentals and vocabulary*, and ISO 30301: *Information and documentation – Management systems for records - Requirements* (2011), by highlighting their contribution to the implementation of IDRMS.

ISO 30300 and ISO 30301 series of standards for the implementation of Management systems for records (MSR)

ISO 30300: Information and documentation - Management systems for records: Fundamentals and vocabulary and *ISO 30301: Information and documentation - Management systems for records – Requirements*, were published in 2011. They outline the principles and requirements related to the implementation of a management system for records (MSR) in an organizational context. They explain the reasons behind the creation of a MSR and defines the core principles to follow for its successful implementation. They also emphasize the plus-value of a MSR in for an organization's business processes. Those standards can be applied by any organization wishing to establish a MSR in order to support its activities, by providing the appropriate information to the suitable employee in the relevant business context.

ISO 30300 and ISO 30301 are complementary with the first version of the standard ISO 15489 on records management, published in 2001, and the one published in 2016 (*Information and documentation- Records management*). The latter describes the requirements that records should satisfy to maintain their evidential value for decision-making processes. It outlines the procedures that are to follow for the creation, capture and management of records (i.e. operations of classification, indexing, access control, storage, use, migration and disposal of documents and records) in order to design and implement a MSR. However, according to this standard, records management is not perceived as a business process to be aligned with the global strategy of the organization. Rather, the standards ISO 30300 and ISO 30301 define the core management principles promoting this alignment. They detail the requirements for a MSR to be interoperable with the other existing organizational IS. ISO 30300 and ISO 30301 provide guiding principles related to a MSR implementation. The first standard lists basic principles and technical vocabulary, while the second provides technical specifications and requirements related to the process of implementation of such systems.

ISO 30300

ISO 30300 (2011) is based on quality management principles, targeting the alignment of a MSR with the global organizational strategy, and its interoperability with other existing IS in the organization. ISO 30300 defines eight principles, which are very well explained by Cottin and Dessolin-Baumann:

- *Customer orientation*: a specific attention should be given to users in order to understand their needs regarding document and records management;
- *Top management leadership* and staff motivation in order to manage technological changes;
- *Involvement* of the employees at all levels to ensure the success of business activities;
- *Process-based approach*: business activities should be organized in a sequence of processes to facilitate their control and achievement;
- *System-oriented management* in order to identify, understand and manage business processes with technological devices;
- *Improvement* of the performance of the organization by a continuous control and evaluation;
- *Factual approach for decision-making*, based on probatory information;
- Mutually beneficial relations between organizations and their suppliers.

Concretely, in order to be aligned with the organizational global strategy, the implementation of a MSR should be based on those core management principles. Users' needs should be taken into account to design a friendly-user system. Top management should perform a role of leadership and control in the MSR implementation project. They should work out a policy specifying the roles and responsibilities of the actors (including front-line employees) involved in this project. The MSR functions, including the creation and management of records, should be organized in processes to ensure their better achievement and control. System-oriented management plays a key role insofar as it ensures better interoperability between organizational IS and the MSR being implemented. The continuous assessment of the MSR being implemented empowers its potential to carry authentic documents and records useful for decision-making purposes. Finally, the organization should maintain beneficial relations with suppliers in order to benefit from high-quality documentary and technical assistance.

Those principles can also apply to an IDRMS implementation. Understanding the organization needs is crucial for any IS implementation project. It is essential that the functions performed by the latter correspond to the employees' expectations. Effective management plays a paramount role in any IS project, since employees should be sufficiently

motivated to be effectively involved in the IDRM project. Technical operations carried out during the implementation of IDRMS, including the digitalization of documents, their migration, their description and their disposal, are to be conducted in well-organized processes. It is also important to specify the roles and responsibilities for each actor in the project in order to ensure a better control of those processes.

System-oriented management also plays a major role in the success of IDRM projects. Like all the modern document and records management systems, IDRMS are integrated into the other IS of the organization, because employees make use of a large variety of documents and records to conduct strategic and operational activities. Hence, it is necessary to ensure the good performance of those IS, as well as their interoperability with the IDRMS being implemented. After the establishment of the system, a continuous evaluation should be done in order to monitor the IDRMS performance at the individual and the organizational levels. Finally, good communication with suppliers could be legitimate to benefit from the technical support related to the use of the purchased IDRM software. The application of such principles would guarantee good project management, mitigating thereby the difficulties encountered during IDRMS implementation processes.

ISO 30301

ISO 30301 (2011) exposes the core requirements for the implementation of a MSR in an organizational context. More specifically, it enumerates the conditions that a MSR should meet to produce documentary outputs that are useful for business processes. There are five requirements (ISO 30301 2011):
- *Reliability*: the MSR should carry reliable and trustworthy information that could be used as evidence by executives and make it possible for employees conducting their daily activities;
- *Security*: in order to control documents access, measures should be specified in the MSR. Thanks to access rules, confidential documents are protected from any unauthorized access or alteration;
- *Compliance:* the system should conform to the norms of the organization. It should also meet the technical and the legal requirements to ensure a long-term preservation of records;
- *Exhaustiveness*: the system should as much exhaustive as possible, to carry all documents reflecting the organization's core business activities;
- *Systematic character*: the documentary functions offered by the system should be used by all employees to perform the same assigned tasks.

In the light of those requirements, we conclude that a performing MSR produces reliable and authentic information, useful for conducting organizational activities. Such system should comply with security requirements (e.g. protection of vital information against unauthorized modification) and long-term preservation of documents. A powerful MSR offers documentary functions that are easily explored by the employees of the administrative units.

An IDRMS should conform to the same principles mentioned above. Managers and archivists should ensure the reliability of documents and records carried by the system, so that their probatory potential would be empowered. This documentary system should include security measures making it possible to check the identity of the users in order to protect documents from alteration. It should conform not only to the rules of the organization (archiving policies, systems' use, etc.) but also to the technical requirements (e.g. lifecycle documents and records management, probatory electronic archiving). An IDRMS should be exhaustive enough to cover, as much as possible, the essential activities of the organization. Moreover, if it provides simple documentary functions (user-friendliness), this would promote its systematic use by all employees to support the execution of their activities.

Taking account of all those considerations during an IDRMS implementation makes it possible to have a reliable and powerful system, reflecting the reality of the organization and its diverse business processes. Henceforth, any organization would be able to maximize the use of its documentary system in order to improve its productivity.

ISO 30300 and ISO 30301: merits

The use of ISO 30300 and ISO 30301 has myriad merits for organizations. Such standards offer a solid framework for documents governance, since they describe the appropriate methodology for the alignment of document and management systems with the global strategy of the organization. Thus, they emphasize the role of good document management as a critical success factor for an organization. Moreover, they provide the necessary methods to ensure a continuous control of documents and records processes. They also enumerate the specifications on risk management related to documents and records processes. Henceforth, any organization would be increasingly aware of the risks arising from the management and preservation of its records. With reliable, authentic and trustworthy information, organizations would be able to defend themselves in case of litigation, and prove their achievements throughout time. It is to be stressed that this series

of standards can be used with the standard ISO 30302, which comprises "operational" guidelines on the implementation of a MSR in any kind of organization wishing to implement a document and records management system (ISO 30302).

ISO 30300 and ISO 30301: limits

Despite their considerable advantages, ISO 30300 and ISO 30301 standards have some limitations. As their respective names already indicate it, those standards relate only to *records*. In other terms, they apply only to the management of documents at their active and semi-active stage, known as *Records Management*. However, IDRM as an archival practice aims at managing the entire life cycle of documents (both analog and digital), from their creation up to their disposal or permanent preservation. An IDRMS is, as stated before, a hybrid system that may be considered at the same time as an EDRMS and an Electronic archiving system. It means that the implementation and use of an IDRMS should also take into account some considerations related to probatory archiving, since IDRMS are viewed as "memory systems" for organizations. Therefore, those standards are "partially" beneficial for the implementation of IDRMS, since probatory archiving and the management of historical archives are not involved in such standards. However, it should be noted that organizations could use another international standard governing the activities relating to electronic archiving and the sustainable storage of documents in IDRMS. This is ISO standard 14641-1, entitled *Electronic archiving - Part 1: Specifications concerning the design and operation of an information system for electronic information preservation*, published in 2012. The following section addresses the details of this standard and its contribution to IDRM.

ISO 14641 on probatory electronic archiving

Presentation of the standard

This standard was published in 2012 as a response to challenges related to probatory archiving of digital documents and records. With the current legal stipulations according to which a digital document should have the probatory value as the analog one, it is important to ensure its long-term and secure preservation in electronic archiving systems. ISO 14641-1, based on the French standard NF Z42-013 on the legal and probatory archiving of digital documents, provides technical specifications that electronic archiving systems should satisfy in order to guarantee long-term preservation of digital documents as well as their integrity. Although there is another standard for long-term preservation of records, *ISO 14721: Space data and information transfer systems- Open*

Archival information system (OAIS)- reference model, this standard is a conceptual model which illustrates the various processes for the probatory archiving of digital documents. Yet, it does neither demonstrate practically how such processes would be executed, nor define which requirements they should meet. Rather, the specifications defined by ISO 14641-1 provide a reference framework that may be used by any organization in order to empower the evidential and informational value of historical archives. More specifically, the core aspects of this standard can be listed along the following lines (ISO 14641 2012):

Long-term preservation: it implies the use of appropriate file formats ensuring secure preservation of documents, such as *PDF format* (Portable Document Format). PDF/A-Xa is used to maintain the document logical structure, while PDF/B-Xb is for the visual conformity of the document. For images and photographies, TIFF format (Tagged Image File Format) is highly recommended.

- *Migration operations*: they should be conducted without any loss of information. Actors involved in such processes should control the quality of information, its integrity as well as its readability;
- *Archiving operations*: they should be based on integrity measures, such as digital fingerprints, watermarks and copyrights (prohibition of downloading without permission, for example);
- *System evaluation:* regular control of the system is necessary in order to check its performance and to assess its conformity with the archival and technical requirements.

As for any electronic archiving system, those specifications could also apply to an IDRMS, and particularly for its functions devoted to long-term preservation of historical documents. Those documents should be compressed in appropriate formats (e.g. zip, rar, etc.), preserved in suitable media and subjected to rigorous control in order to ensure their integrity and preserve them against unauthorized access. Moreover, an IDRMS should undergo periodic evaluation by the involved actors to guarantee its good performance and contribution as a memory system to the organization.

ISO 14641: Merits

The contributions of the standard to electronic archiving are undeniable. It promotes long-term preservation of historical archives thanks to specific guidelines related to integrity and quality considerations. It also helps any organization to conform to legal requirements on probatory electronic archiving. An organization who is aware of the challenges related to digital archives preservation is more likely to adopt measures provided by this standard, and aiming to

enhance the double function of historical archives (informational and evidential value). Hence, ISO 14641 is a good normative tool for improving the visibility of an IDRMS as a memory system reflecting organizational achievements throughout time.

Conclusion

Standards are a monitoring tool for organizational activities. In document and records management fields, standards promote an effective exchange of know-how among archival communities at the national and international level. ISO 30300 and ISO 30301 series of standards as well as ISO 14641 concern archives management throughout their lifecycle. ISO 30300 and ISO 30301 are used for controlling the management of records (i.e. active and semi-active documents), while ISO 14641 is conceived for long-term preservation of digital historical archives (inactive). The ultimate objectives of those standards are aligned with those of integrated document and records management (IDRM), an archival practice increasingly gaining ground in Quebec. It targets the management of both analog and digital documents and records throughout their life cycle. More specifically, the above-mentioned standards are useful for the implementation and use of integrated document and records management systems (IDRMS) in organizations. They are based on principles inspired from ISO 9000, the core standard on quality, according to which the organizations should abide by a set of quality requirements in order to offer appropriate products and services for customers.

In Quebec, the aforementioned standards can be used in a combination with a large array of guidelines and frameworks. For example, the governmental framework on integrated document and records management (*le cadre de référence gouvernemental en gestion intégrée des documents* (CRGGID)) defines strategies to be followed in order to ensure a better implementation and a rational use of IDRMS within a governmental context. The stipulations of such framework are based on guidelines specified in ISO 15489 on Records management, as well as on core

characteristics of Quebec governmental organizations. ISO 30300, ISO 30301 and ISO 14641 can also be applied together with various archiving policies established by Bibliothèque et Archives nationales du Québec (BAnQ).

As the practice of IDRM is gaining ground at the international scale (in France among others), it is necessary to establish an international regulatory framework for the organization of the activities involved in such archival practice. As a future area of research, we suggest that the technical committees of archives management make more efforts in order to provide a standardized terminology for this practice. For example, in France as in many French speaking countries, the expression "Electronic document and records management" (*gestion électronique des documents*) is used to stand for IDRM. Yet, while one would understand that EDRM is the exclusive management of digital documents and records, such practice also refers to the management of the analog ones. Despite the efforts made to transit to the paperless office trend, an important portion of analog documentary production is to be kept in its original medium. This situation may either be explained with the historical significance of the media itself in which the document is held, or either, the legal value of this media serving to preserve the probatory potential of this document. Henceforth, some analog documents and records are to be kept in their original media. EDRM is thus an archival practice that concerns digital as well as analog documents and records. Thus, a distinction should be made between the practice that exclusively concerns digital documents and records, and that which is related to both analog and digital ones.

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Notes

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3. Idem, chap 6.

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