



InterPARES Trust Project

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Analytical review of national and international standards for records and informational technologies used in records management in Russia

Records management is a relatively new professional practice in Russia. The term “records management” first appeared in the 1970s but became popular much later, after the publication of the national standard GOST R ISO 15489-1-2007 “System of Standards on Information, Librarianship and Publishing. Records Management. General Requirements” which is the adaptation of the international standard ISO 15489-1:2001 “Information and documentation - Records management – Part 1: General”. This event fundamentally changed the approach to standardization in our field.

National and international standards and even their drafts support the development of high-quality laws and regulations, as well as organizational by-laws, policies and procedures. This is especially important in the Russian context because our laws and regulations on documentation support of management (as a part of records management) were designed for government bodies and tend to ignore specific needs of the private sector.

Therefore, development and implementation of modern national standards are essential. Although Federal Law No.184-Φ3 of December 27, 2002 “On Technical Regulation” introduced the principle of “voluntary application of standards” thus changing their status from mandatory regulations to methodological (guidance) documents, the standards are still widely used.

Records management standardization in Russia has a rich history in which major activities took place during the following three periods:

- 1920-s – 1930-s: unification and standardization of documents in Soviet Russia;
- 1970-s –1980-s: standardization of record keeping and later standardization of documentation support of management in the USSR;
- 2000-s – up to present: records management standardization in the Russian Federation

Throughout all these periods there were different terms for the practice of organizing the work with documents: record keeping, documentation support of management and records management. It must be noted that the terms “record keeping”, ”documentation support of management”, ”records management” in Russia are not synonymic and refer to different qualification, responsibility and managerial levels of work with documents. Division into standardization periods is also quite arbitrary and is connected not only with the main periods of the country’s development, but also with the stages of the biggest activities in standardization in this professional area.

The periods are discussed in detail below.

First period: 1920-s – 1930-s.

This was a period of institutional (departmental) document unification and formalization which were seen as components of standardization and used for optimization of documentary forms and their processing. This practice was called “scientific organization of work” at that time .

Development of State standards for documents dates back to 1924-1925 when government agencies concerned included the item “Standardization of document types and formats” into their 5-year plans. Two basic principles of document standardization were established in that period: universality of application and physical possibility of production. These two principles determined the strategy of document standardization for many years.

The first standards for paper sizes were approved in 1924. In 1929 these standards, which established the tradition of using two letterhead sizes (A4 and A5) in management, were made mandatory. At the same time the standards for paper quality also developed, setting the characteristics of paper composition, colour, density and some others. In these standards the variety of paper was reduced to a minimum. The standards also established the priority of paper use depending on the pragmatic purposes and historical value of documents.

The first State standards for documents were drafted in 1926. The drafts were circulated in all major government institutions and departments for approval. In 1931, 26 standards (out of 73) were

approved as State standards. The standards regulated the document types (order, business letter, act, protocol, phone message, telegramme etc.) and paper formats (consumer- or production-oriented) as well as the rules of their selection and use for the creation of documents.

However, the standards (except those for paper format) were not mandatory and were used by institutions and departments at their discretion.

During World War II and after the war the work on document standardization was put on hold, except for paper formats and quality standards, which were simplified.

Second period: 1970-s – 1980-s

The interest in document and record keeping standardization re-appeared in the mid-1960-s due to a sharp increase in document production. The government decided to create the “State Record Keeping System” which would be mandatory across the Soviet Union.

Introduced in 1973, the “State Record Keeping System” was in fact a State standard, but formally it was a law. Additionally some 23 standards for different document types were developed within the framework of GOST 6.x series “Managerial Documentation”. The first three of those standards contained methodological recommendations and requirements.

Another group of 4 standards of GOST 6.x subseries “HR Managerial Documentation” regulated the creation, issuance, registration, use and storage of documents in the HR sphere.

The experience gained with these standards resulted in the idea of interspecific document unification. As a result, two new State standards replaced all the 27 previously issued ones and set the trend of generalizing requirements to managerial documents in universal basic standards. Yet the scope of these standards was limited to administrative documentation. Thus the regulatory role of standards as instruments defining various aspects of registration and issuance of documents was finally determined.

At the next stage of document and record keeping standardization the unified systems of documentation were developed for the application across the USSR. In total 16 unified systems of

documentation (e.g., financial, statistical, trade) were developed. They replaced most of standards for managerial documentation elaborated before. GOST's 6.x series received a new title: «Unified Documentation Systems». The “Unified System of Organizational and Administrative Documentation” played a special role and got a nationwide status. All the unified systems were based on the State standards regulating the document types for each of them, the rules of their issuance, format and terminology - 50 standards in total.

It should be noted that all the unified documentation systems could be used both in traditional (paper) record keeping and in automated control systems on different levels (ministry, department, institution etc.) across the USSR. A special group of standards were developed for automated control systems, regulating the legal status and technical features of early digital records.

In the 1980-s document science came to a turning point due to a crucial change in the methods of information recording, transfer and reproduction. New types of documents appeared, which made it necessary to develop the technology of their registration, use, storage, validation, access and protection. In the new circumstances record keeping could not be reduced to the basic documentation flow; it moved to a new level and began to be regarded as documentation support of management.

In 1988 the “State System for Documentation Support of Management” was established. It replaced the “State Record Keeping System”. The new State system contained a set of principles and rules laying down the uniform requirements for the recording of managerial activity and for the organization of work with documents in State bodies and in all kinds of professional and social institutions. That system took into account the specificity of mechanical and automatic work with documents and automated control systems.

The new State system became the main legal, regulatory and methodological framework for documentation support of management on all levels across the country. Significantly, the rules of that system were based on the mandatory State standards.

Third period: 2000-s – up to present

Due to the collapse of the USSR in 1991 the modernization of the managerial system as a whole and of documentation support of management in particular was not completed. Many standards were not re-confirmed and subsequently became optional. The scope of documentary support of management remained limited to the system of organizational and administrative documentation. Although the principles of this system covered all managerial documents, this was not underpinned by legislation. Yet the high quality of this State system and its standards, as well as their widespread implementation across the country (including the former Soviet Republics of Ukraine, Belorussia, Kazakhstan etc.) resulted in resilience of this practice, many aspects of which are still in use.

The State standardization system in Russia officially appeared in 1925 when the Committee on Standardization was created under the USSR Council of Work and Defense. During its lifetime this regulatory body was reformed several times, but it always played an important role in regulating different State activities. Since 2004 this structure has been known as the Federal Agency on Technical Regulation and Metrology, or, briefly, ROSSTANDART (<http://www.gost.ru/wps/portal/en>, also known abroad as GOST).

At present standardization in the Russian Federation is regulated by two Federal Laws:

- No.184 of 2002 “On Technical Regulation” (2016 version);
- No.162 of 2015 “On Standardization” (2016 version).

The provisions of the laws are mirrored in national standards of GOST R 1.x series entitled “Standardization in the Russian Federation” which are also key regulatory documents in the area of standardization. These standards set the following:

- goals, objectives and basic provisions of the national system of standardization;
- procedural requirements for the creation and contents of regulatory documents used in national standardization;
- requirements for national technical committees, rules of their creation and functioning, etc.

The core activities of ROSSTANDART include technical regulation, metrology and standardization. At present ROSSTANDART still has an extensive system of subordinated structures, branches and laboratories.

ROSSTANDART performs standardization work through its technical committees (TC). There are four TCs dealing with records management issues:

- TC 191 “System of Standards on Information, Librarianship and Publishing” which serves as mirror committee for ISO/TC 46 “Information and Documentation”:
 - SC 4 «Records management»;
- TC 459 “Informational support of product lifecycle”
 - SC 6 “Lifecycle of electronic document flow”
- TC 22 «Informational technologies»;
- TC 076 «Quality management system».

It should be noted that in the Russian Federation the direct use of international standards is not supported by legislation and is generally discouraged. Foreign and international standards must be converted and adopted as national standards either translated “as is” or in the modified form.

At present four types of standards are used in the Russian Federation:

- Interstate standards (for the Community of Independent States and the Eurasian Economic Union);
- original national standards;
- international standards adopted with modifications;
- international standards converted into national standards by means of literal translation.

The last three types of standards are used in Russian records management, which includes record keeping and documentation support of management. The first type does not officially exist in records management but all former Soviet Union republics have their own records management standards based on Russian original standards from the second group and on some ISO and IEC standards.

The second group includes well-established original standards regulating creation, registration and issuance of organizational and administrative documents as well as the terms and definitions used in this professional area. These standards are periodically reviewed and updated. The most popular are:

- GOST R 6.30-2003 «Unified systems of documentation. Unified system of managerial

documentation. Requirements for presentation of documents»

- This standard sets the rules for designing document forms (obligatory and optional requisites and their placement) for administrative records (orders, letters, official confirmations etc.)
- GOST R 7.0.8-2013 «System of standards on information, librarianship and publishing. Record keeping and organization of archives. Terms and definitions»
- As its title suggests, the standard contains basic terms used both in record keeping, documentation support of management and in records management and archival practice, and their definitions.

The third group includes international standards and technical reports (ISO / IEC) adopted as national standards with modifications. These standards are not numerous because their approval procedure is much more complicated in comparison with corresponding international standards.

The fourth group comprises the international standards which were converted into national standards through literal translation. As a rule, these standards regulate the implementation of informational technologies and data protection in management.

Russian national standards and their international prototypes (original international standards)

During the last decade Russia basically managed to close the gap in the standardization of modern records management, relying on adaptation of ISO standards and approving 1-2 standards per year.

Apart from our own specific standards, modern records management is also interested in the standards of the adjacent and/or overlapping disciplines which regulate the following issues:

- management of business continuity,
- management of various types of digital records and information (e.g. R&D, HR, health records etc.),
- specific information technologies used both in management and records management, e.g. for storage and preservation of digital records and information;
- metadata for records,
- protection of privacy / personally identifiable information (PII);
- ensuring legal value and legal admissibility of digital records and information; managing digital evidence; digital forensics;
- information security issues;
- managing records and information in a Cloud;

Standardization in these areas is detailed below. National standards are subdivided into corresponding groups and matched to their international prototypes where appropriate.

1. National standards regulating the issues of business continuity

With the frequency of serious natural and human-made disasters steadily increasing, the participation in business continuity and disaster recovery efforts and programmes has become an important aspect of modern records management.

Recently a package of business continuity standards was approved in Russia. Unfortunately, the national records management community was not informed about their development and did not take part in this process. The following standards are of most interest:

No.	National standard	Original international standard
1.	GOST R ISO 22301-2014. “Business continuity management systems. Requirements”	ISO 22301:2012, Societal security - Business continuity management systems – Requirements
2.	GOST R ISO 22313-2015. “Business continuity management systems. Guidance for implementation”	ISO 22313:2012, Societal security - Business continuity management systems - Guidance
3.	GOST R 53647.4-2011. “Business continuity management. Guideline for incident preparedness and operational continuity management”	ISO/PAS 22399:2007, Societal security - Guideline for incident preparedness and operational continuity management
4.	GOST R 56548-2015. “Sustainable development and resilience of communities. Management systems. General principles and requirements”	ISO 37101:2016, Sustainable development in communities - Management system for sustainable development - Requirements with guidance for use

2. National standards regulating the issues of methodology of digital records and documentation systems management

In addition to original national standards (GOST R 6.30-2003, GOST R 7.8.0-2013 etc.) the main international ISO standards are used in the adapted form in Russia. They are listed in the table below.

No.	National standard	Original international standard
1.	GOST R ISO 15489-1-2007. "System of standards on information, librarianship and publishing. Records management. General requirements"	ISO 15489-1:2001, Information and documentation - Records management - Part 1: General
2.	GOST R ISO 22310-2009. "System of standards on information, librarianship and publishing. Information and documentation. Guidelines for standards drafters for stating records management requirements in standards"	ISO 22310:2006, Information and documentation - Guidelines for standards drafters for stating records management requirements in standards
3.	GOST R 55681-2013. "Information and documentation. Work process analysis for records"	ISO/TR 26122:2008, Information and documentation - Work process analysis for records
4.	GOST R ISO 30301-2014. "Information and documentation. Management systems for records. Requirements"	ISO 30301:2011, Information and documentation - Management systems for records - Requirements
5.	GOST R ISO 30300-2015. "System of standards for information, librarianship and publishing. Information and documentation. Management systems for records. Fundamentals and vocabulary"	ISO 30300:2011, Information and documentation - Management systems for records - Fundamentals and vocabulary
6.	GOST R 53898-2013. "Electronic records management systems. Interoperability of records management systems. Electronic message specifications"	None
7.	GOST R ISO 6422-1-2012. "Layout key for trade documents. Part 1: Paper-based documents"	ISO 6422-1:2010, Layout key for trade documents - Part 1: Paper-based documents

At present Russian records management experts are participating in the creation of ISO 30300 series standards (ISO 30303, ISO 30304).

3. National standards regulating the issues of creation and use of metadata

Metadata play a crucial role in digital records management on all the stages of their life cycle. For this reason international ISO and IEC standards on metadata are thoroughly studied in Russia. Practically all of them are used in our country after being converted into national standards, which is shown in the table below.

No.	National standard	Original international standard
1.	GOST R ISO 23081-1-2008. “System of standards on information, librarianship and publishing. Records management processes. Metadata for records. Part 1. Principles”	ISO 23081-1:2006, Information and documentation - Records management processes - Metadata for records - Part 1: Principles
2.	GOST R ISO 15836-2011. “Information and documentation. The Dublin Core metadata element set”	ISO 15836:2009, Information and documentation - The Dublin Core metadata element set
3.	GOST ISO/IEC 19788-2-2015. “Information technology. Learning, education and training. Metadata for learning resources. Part 2. Dublin Core elements”	ISO/IEC 19788-2:2011, Information technology - Learning, education and training - Metadata for learning resources - Part 2: Dublin Core elements
4.	GOST ISO/IEC 19788-3-2015. “Information technology. Learning, education and training. Metadata for learning resources. Part 3. Basic application profile”	ISO/IEC 19788-3:2011, Information technology - Learning, education and training - Metadata for learning resources - Part 3: Basic application profile
5.	GOST ISO/IEC 19788-5-2015. “Information technology. Learning, education and training. Metadata for learning resources. Part 5. Educational elements”	ISO/IEC 19788-5:2012, Information technology - Learning, education and training - Metadata for learning resources - Part 5: Educational elements
6.	GOST R 55750-2013. “Information and communication technologies in education. Electronic learning resource metadata. General regulations”	None

4. National standards regulating the issues of digital evidence and digital forensics management

Since recently management of digital records and information as evidence, of digital forensics and e-discovery has been increasingly important for records management professionals. Within the framework of these disciplines, methods and instruments are being developed that can be of use for records managers. Corresponding international standards are created by ISO/IEC JTC1 Technical Committee.

So far Russian information security experts have published only one such standard and one more document can be included with reservations:

No.	National standard	Original international standard
1.	GOST R ISO/IEC 27037-2014. "Information technology. Security techniques. Guidelines for identification, collection, acquisition and preservation of digital evidence"	ISO/IEC 27037:2012, Information technology - Security techniques - Guidelines for identification, collection, acquisition and preservation of digital evidence
2.	GOST R ISO 10008-2014. "Quality management. Customer satisfaction. Guidelines for business-to-consumer electronic commerce transactions"	ISO 10008:2013, Quality management - Customer satisfaction - Guidelines for business-to-consumer electronic commerce transactions

Currently Russian records management experts are participating in ISO project ISO/IEC 27050, Information technology - Security techniques - Electronic discovery, in 4 parts (see also http://rusrim.blogspot.ru/2014/09/blog-post_14.html, in Russian).

We also took part in the consultations on the final draft of recently published ISO/IEC 27040:2015, Information technology - Security techniques - Storage security (see http://www.iso.org/iso/home/store/catalogue_tc/catalogue_detail.htm?csnumber=44404).

5. National standards regulating the issues of protection of privacy and of personally identifiable information

Privacy protection became hot topic in Russia after 2010 when the application of national data protection legislation (first introduced in 2006) started in earnest. Besides general questions, redaction of disclosed digital records is a necessary technology for resolving a number of information security issues and ensuring privacy. There are the following standards on the topic:

No.	National standard	Original international standard
1.	GOST R ISO/IEC 27038-2016. "Information technology. Security techniques. Specification for digital redaction"	ISO/IEC 27038:2014, Information technology - Security techniques - Specification for digital redaction
2.	GOST R ISO/IEC 29100-2013. "Information technology. Security techniques. Privacy framework"	ISO/IEC 29100:2011, Information technology - Security techniques - Privacy framework
3.	GOST R 53647.6-2012. "Business continuity management. Specification for a personal information management system for data protection"	BS 10012:2009, Data protection. Specification for a personal information management system.
4.	GOST R ISO/IEC 27018 (draft), "Information technology - Security techniques - Code of practice for protection of personally identifiable information (PII) in public clouds acting as PII processors"	ISO/IEC 27018:2014, Information technology - Security techniques - Code of practice for protection of personally identifiable information (PII) in public clouds acting as PII processors

Russian records management experts only recently got involved into technical work on new international standards on privacy / PII protection. We are participating in the following projects:

- ISO/IEC 29190:2015, Information technology - Security techniques - Privacy capability assessment model, see also http://www.iso.org/iso/home/store/catalogue_tc/catalogue_detail.htm?csnumber=45269
- ISO/IEC DIS 29134, Information technology - Security techniques - Privacy impact assessment - Guidelines, see also http://www.iso.org/iso/home/store/catalogue_tc/catalogue_detail.htm?csnumber=62289
- ISO/IEC CD 19086-4, Information technology - Cloud computing - Service level agreement (SLA) framework and technology - Part 4: Security and privacy, see also http://www.iso.org/iso/home/store/catalogue_tc/catalogue_detail.htm?csnumber=68242

6. National standards regulating the issues of storage and preservation of authentic digital records

The major IT-related challenge in records management is to ensure long-term and permanent preservation of digital records while keeping their authenticity, integrity and accessibility / usability.

To that end, the following standards are used in Russia:

No.	National standard	Original international standard
1.	GOST R 54471-2011. "Document management. Information stored electronically. Recommendations for trustworthiness and reliability"	ISO/TR 15801:2009, Document management - Information stored electronically - Recommendations for trustworthiness and reliability (New edition of this ISO Technical Report is being prepared, and Russian TC 459/SC 6 is participating in this work)
2.	GOST R 54989-2012. "Long-term preservation of electronic document-based information"	ISO/TR 18492:2005, Long-term preservation of electronic document-based information
3.	GOST R ISO 13008-2015. "Information and documentation. Digital records conversion and migration process"	ISO 13008:2012, Information and documentation - Digital records conversion and migration process
4.	GOST R ISO/IEC 15910-2002 "Information technology. Software user documentation process"	ISO/IEC 15910:1999, Information technology - Software user documentation process

There exists an official translation of one more standard, ISO/TR 13028-2010, Information and documentation - Implementation guidelines for digitization of records. The possibility of adopting it as a national standard is under consideration.

7. National standards regulating the questions of information security

The Russian community of information security (IS) experts is numerous and active. Standardization issues are also included into the sphere of their interests, since the protection of records and information has always constituted a significant part of records management activities.

Regrettably, until now records managers and archivists have failed to directly influence the development of basic Russian standards on the subject. However, they use the relevant standards, especially for convincing top management of the necessity to pay proper attention to records management and archiving.

Like all ISO management system standards, the standards for information security management systems (ISMS) highlight the importance of good records management, which makes them rather popular with our professional community. Some of the most popular standards are listed below.

No.	National standard	Original international standard
1.	GOST R ISO/IEC 27000-2012. “Information technology. Security techniques. Information security management systems. Overview and vocabulary”	ISO/IEC 27000:2009, Information technology - Security techniques - Information security management systems - Overview and vocabulary (Current is the 2016 edition)
2.	GOST R ISO/IEC 27001-2006. “Information technology. Security techniques. Information security management systems. Requirements”	ISO/IEC 27001:2005, Information technology - Security techniques - Information security management systems - Requirements (Current is the 2013 edition)
3.	GOST R ISO/IEC 27002-2012. “Information technology. Security techniques. Code of practice for information security management”	ISO/IEC 27002:2005, Information technology - Security techniques - Code of practice for information security management (Current is the 2013 edition)
4.	GOST R ISO/IEC 27003-2012. “Information technology. Security techniques. Information security management systems. Implementation guidance for information security management system”	ISO/IEC 27003:2010, Information technology - Security techniques - Information security management system implementation guidance
5.	GOST R ISO/IEC 27005-2010. “Information technology. Security techniques. Information security risk management”	ISO/IEC 27005:2008, Information technology - Security techniques - Information security risk management (Current is the 2011 edition)
5.	GOST R ISO/IEC 13335-1-2006. “Information technology. Security techniques. Part 1. Concepts and models for information and communications technology security management”	ISO/IEC 13335-1:2004, Information technology - Security techniques - Management of information and communications technology security - Part 1: Concepts and models for information and communications technology security management
6.	GOST R ISO/IEC TR 13335-5-2006, Information technology. Security techniques. Part 5. Management guidance on network security	ISO/IEC TR 13335-5:2001, Information technology - Guidelines for the management of IT Security - Part 5: Management guidance on network security

8. National standards regulating the use of Clouds in management

Work with Clouds is a relatively new technology which is still not widely used in Russia. At present there exists only one standard for cloud computing:

No.	National standard	Original international standard
1.	GOST R ISO/IEC 17826-2015. “Information technology. Cloud data management interface (CDMI)”	ISO/IEC 17826:2012, Information technology - Cloud Data Management Interface (CDMI) (Current is the 2016 edition)

One more standard is expected to be published soon. That is GOST R ISO/IEC 17789 based on freely available ISO/IEC 17789:2014, Information technology - Cloud computing - Reference architecture:

http://standards.iso.org/ittf/PubliclyAvailableStandards/c060545_ISO_IEC_17789_2014.zip

Russian records management experts were involved in the development of the following ISO products:

- ISO/IEC 27017:2015, Information technology - Security techniques - Code of practice for information security controls based on ISO/IEC 27002 for cloud services, see also http://www.iso.org/iso/home/store/catalogue_tc/catalogue_detail.htm?csnumber=43757
- ISO/IEC 27036-4:2016, Information technology - Security techniques - Information security for supplier relationships - Part 4: Guidelines for security of cloud services, see also http://www.iso.org/iso/home/store/catalogue_tc/catalogue_detail.htm?csnumber=59689

We have also joined the new working group ISO/TC 46/SC 11/WG 17 “Records in the cloud”, which is developing the ISO technical report ISO/TR Information and documentation – Records management in the cloud: Issues and concerns.

Note: There are several other ISO standards of interest for records managers, namely:

- ISO/IEC 17788:2014, Information technology - Cloud computing - Overview and vocabulary, freely available at http://standards.iso.org/ittf/PubliclyAvailableStandards/c060544_ISO_IEC_17788_2014.zip
- ISO/IEC 27018:2014, Information technology - Security techniques - Code of practice for protection of personally identifiable information (PII) in public clouds acting as PII

processors), see also

http://www.iso.org/iso/home/store/catalogue_tc/catalogue_detail.htm?csnumber=61498 and

<http://www.federtimes.com/story/government/solutions-ideas/2015/05/05/protecting-privacy-national-security/26935097/>

9. National standards regulating the issues of document physical storage

Paper documents are not going to disappear any time soon, and standardization in the area of management of non-electronic records is progressing, even though rather slowly. We have a few archival standards but in general archival practice in our country is regulated by a Federal law “On archival practice” and special regulatory acts.

No.	National standard	Original international standard
1.	GOST R 56356-2015. “Metal shelving for archives. Specification”	None
2.	GOST R 56513-2015. “Metal cabinets for archives. Specifications”	None
3.	GOST R 56369-2015. “Filing cabinets. Specifications”	None

All in all, the base of records management standards is quite representative in our country. The standards have lost their mandatory character, but they are still actively used in government and business sectors.

Although national standards have practically become a sort of methodological documents, the individuals and structures concerned (including State structures) use them as regulatory acts if they consider it necessary or effective. At the same time many business structures tend to use not only national, but also international standards, even those not translated into Russian. It is largely due to the fact that State bodies can make the standards mandatory for subordinated and controlled structures. In the business sector the conformity with relevant standards may be included in contracts as one of compulsory conditions. The authors of legal and regulatory acts of different levels and jurisdictions as well as the authors of local by-laws also willingly borrow provisions from both national and international standards with reference to their source. When certain issues are not resolved in legislation, the courts can rely on national standards in their decisions, especially on the widely used authoritative standards like GOST R 6.30-2003, GOST R 7.0.8-2013.

Moreover, in records management and archival science the standards (especially those reflecting traditional practices) are important tools for education, preservation of traditions and for supporting the uniformity of work with documents (records).

To sum up, standards still play an essential role in modern Russian records management.

It should be noted that the latest (2016) version of the Federal Law “On standardization” has considerably simplified some standards development processes and enabled creating pre-standards. The new provisions of the law have expanded the range of international, regional and foreign standards that can be used as a basis for national standards. However, ISO and IEC standards still remain leaders in records management.

An extensive use of ISO and IEC standards in Russian records management has its advantages and drawbacks:

- It is evident that the introduction of ISO / IEC standards has helped to move records management standardization in Russia to a new level that corresponds to the realities of the 21-st century.
- In several cases there is incompatibility or lack of interoperability between original Russian standards and adopted international ones due to historical differences between Russian record keeping/archival tradition and those of most other countries.
- All ISO standards are basically well-coordinated in terms of their structure, terminology and methodology of their development. This has contributed to a better coordination of new ISO-based Russian standards. Yet, in several cases there were contradictions between some of these standards for various, often interrelated fields that were standardized by different Rosstandart technical committees.
- Uncoordinated actions of Rosstandart technical committees in the late 1990-s early 2000-s on the translation of international standards and their adoption as national standards resulted in different translations of the same terms and incompatibilities between different standards as well as between the standards and legislation.
- Implementation of international standards in records management has led to changing attitudes of national experts to the role of standards as important regulatory instruments.
- Current experience has shown that for rank and file staff it is much more difficult to use

high-level ISO standards (developed for the experts and top managers) in comparison with detailed workplace instructions offered by many original national standards. For that reason the introduction of any adopted international standards must be accompanied by the development of guidance documents explaining their modes of application.

- Presently the work on the creation of original national standards has decreased, while such standards are still in demand due to more detailed and usable recommendations than those of high-level ISO standards.

However, one of the main challenges for Russia as well as for other countries is under-using of even high-quality modern standards. It cannot be explained only by high cost of the standards. For example, according to Russian laws new national standards are disclosed for general public on the official ROSSTANDART's web-site and their electronic versions are freely accessible (see <http://protect.gost.ru/default.aspx>). Yet they are practically not used because of the lack of explanatory documents.

Apparently, the major obstacle to the introduction of new standards is poor awareness of professionals about their existence, availability and the ways of their use. It is evident that records management standardization needs promoting.

The Russian State University for the Humanities was the first Russian university which introduced special courses on national and international records management standards. The first students of our university enrolled in this programme graduated last year. Most of them continue their education in Master's programmes, and we can see that they actively use standards in their work. At the same time, the university has become a member of the national TC on records management. The work is ongoing, but it takes time.

We hope our involvement in Inter PARES project will positively contribute to the progress in this area.

While the adaptation of modern records management standards in Russia is quite successful, the situation in archival standardization leaves much to be desired. Key international standards on digital archiving / preservation of records like OAIS have not been translated into Russian. Since

1980-s the development of new standards for non-electronic records and archives management has also been slow. At the same time the challenge of digital preservation is quickly becoming an issue for top management both in federal and regional governments – so there is hope for changes.

Records management (especially in the case of digital records) is closely connected with information security management. Therefore, we are interested in:

- Standards for cryptographic technologies directly used for managing records and information, first of all, the standards for digital signatures and hash functions. Note that national cryptography is mandatory in a number of areas, cryptography-related activities are licensed, and the Federal Security Service (FSB) is the regulator;
- Standards for protection of privacy / personally identifiable information (PII);
- Standards related to handling and management of digital evidence, digital forensics and e-discovery. Although current Russian legislation does not provide for e-discovery (or any American-style discovery, for that matter), the integration of Russia into the worldwide system forces more and more organizations to comply with international norms and legislation of other jurisdictions in their records management policies and procedures.
- Standards for business continuity, where the protection of vital records is essential. A package of national standards on the topic was approved recently.

Taking into account quick advances of Russia in e-government and open government and Russia's current progress in practical application of digital signatures, e-procurement, number of CAs etc., we are very interested in standards on the following topics:

- Long-term and permanent preservation of digitally signed records;
- Preservation of the new types of systems and records, e.g. databases, CAD records, smart contracts, records in blockchain-based systems, records in the Cloud;
- Ensuring trust to digital records and information and their legal value, managing electronically stored information (ESI) as evidence, ensuring access and disclosure of ESI;
- Managing records created or received in the framework of open data or big data programmes, as well as the records created by “Internet of Things” (IoT);
- Protection of privacy / personally identifiable information;
- Managing classified digital records and information.

Currently we are working on the development of these areas of standardization, so our focus is on adopting corresponding ISO/IEC products. However, we hope to increase our input in the future. It is also worth noting that Russian expects participate in all the projects of the ISO Technical Committee ISO/TC 46/SC 11. The following standards are priority candidates for national adoption:

- ISO 15489-1:2016, Information and documentation - Records management - Part 1: Concepts and principles;
- ISO 30302:2015, Information and documentation - Management systems for records - Guidelines for implementation;
- ISO/DTS 21946, Information and documentation - Appraisal for managing records;
- ISO/DIS 20614, Data exchange protocol for interoperability and preservation, DEPIP (it is developed by ISO/TC 46/SC 4).

We hope that current efforts of our University to prepare a new generation of highly qualified modern records management / archival science experts will promote much wider application of standards and formation of a strong body of national ISO experts.

Records management standardization enables us to enhance quality, effectiveness and efficiency not only of our own work, but also of the mainstream activities of our organizations. Since standards (in comparison with legislation) can be easier and faster adapted to changing demands and technologies (compared with legislation), they remain an essential tool for innovation, interoperability and adoption of best world practices.