International Records Management and Archives Terminology Systems Standardized by ISO and IEC

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ABSTRACT

Nowadays terminology issues are getting more and more important due to the introduction of informational technologies into all professional areas including records and archives management. But are the terminological systems used in records management, archives and IT well coordinated? There are international organizations on standardization (e.g. ISO and IEC) which are responsible for the compatibility of international terminology through developing international standards. This article presents the results of our research into the main ISO and IEC standards (e.g. ISO 5127-2017, ISO 15489-2016) used in records and archives management and IT in terms of compatibility of standardized international terminology in these spheres. The main method of our research was the comparative analysis of various definitions of the same terms given in international standards created for experts in the above mentioned areas. Understanding the difference between the «data», «document», «record» is very important for choosing the ways of the protection and storage of the actual objects denoted by these terms. The research has shown that it is too early to speak about the compatibility of terminological systems even used in such close areas as records management and archives. The same is actual for IT terminology when it penetrates these spheres. Yet their terminological systems do not seem fully integrated even in ISO and IEC standards elaborated for these professional areas. However, it will be practically impossible to develop these spheres without coordinating their terminological systems. ISO and IEC standards might be real tools for solving this problem but they are still not appropriately used.

Key words: records management, archives, terminology, standardization, data, document, record, informational technologies

Gestione documentale internazionale e sistemi terminologici archivistici standardizzzati con ISO e IEC

SINTESI

Al giorno d'oggi i problemi di terminologia sono sempre più importanti grazie all'introduzione di tecnologie informatiche in tutti gli ambiti professionali, compresa la gestione di documenti e di archivi. Ma i sistemi terminologici utilizzati nella gestione dei documenti e degli archivi sono ben coordinati? Ci sono organizzazioni internazionali per la standardizzazione (ISO e IEC) che sono responsabili per la compatibilità della terminologia internazionale per mezzo dello sviluppo di standard internazionali. Questo articolo presenta i risultati della nostra ricerca nei principali standard ISO e IEC (ad esempio ISO 5127-2017, ISO 15489-2016) utilizzati nella gestione documentale ed archivistica e nella tecnologia informatica, nei termini della compatibilità della terminologia standardizzata internazionale in questi ambiti. Il metodo principale della nostra ricerca è stato l'analisi comparativa delle varie definizioni degli stessi termini dati negli standard internazionali creati per gli esperti nei settori sopra citati. Capire la differenza tra «dati», «documento», «record» è molto importante per la scelta delle modalità di tutela e conservazione degli effettivi oggetti denotati da questi termini. La ricerca ha dimostrato che è ancora troppo presto per poter parlare della compatibilità dei sistemi terminologici anche in ambienti vicini come la gestione dei documenti e degli archivi. La stessa cosa vale anche per la terminologia informatica quando penetra queste sfere. I loro sistemi terminologici non sembrano ancora completamente integrati anche negli standard ISO ed IEC elaborati per queste aree professionali. Tuttavia, sarà praticamente impossibile sviluppare tali ambiti senza un coordinamento dei loro sistemi terminologici. Le norme ISO e IEC potrebbero essere veri e propri strumenti per la risoluzione di questo problema, ma non sono ancora adeguatamente utilizzati.

Parole chiave: gestione documentale, archivi, terminologia, standardizzazione, dati, documento record, tecnologie informatiche

Standardizirani (ISO in IEC) mednarodni terminološki sistemi upravljanja z dokumenti in arhivitike

IZVLEČEK

Danes so vprašanja in problemi terminologije vedno bolj pomembna zaradi uvedbe informacijskih tehnologij na vseh strokovnnih področjih, vključno z arhivistiko in dokumentologijo. Ali so terminološki sistemi, ki se uporabljajo v arhivistiki, pri upravljanju z dokumenti ter v IT, dobro usklajeni? Obstajajo mednarodne organizacije za standardizacijo (npr. ISO in IEC), ki so odgovorne za združljivost mednarodne terminologije z razvojem mednarodnih standardov. V prispevku so predstavljeni rezultati naših raziskav o glavnih standardih ISO in IEC (npr. ISO 5127-2017, ISO 15489-2016), ki se uporabljajo pri upravljanju arhivskega gradiva, v arhivih in na področju informacijske tehnologije glede na združljivost standardizirane mednarodne terminologije na teh področjih. Glavna metoda raziskovanja je bila primerjalna analiza različnih definicij istih izrazov, ki so podani v mednarodnih standardih, ustvarjenih za strokovnjake na zgoraj omenjenih področjih. Razumevanje razlike med »podatki«, »dokumentom« in »zapisom« je zelo pomembno za izbiro načinov zaščite in shranjevanja dejanskih objektov, ki jih označujejo ti izrazi. Raziskava je pokazala, da je prezgodaj govoriti o združljivosti terminoloških sistemov, ki se uporabljajo celo na tako tesnih področjih, kot sta arhivistika in dokumentologijai. Enako velja za IT terminologijo, ko prodre v omenjeni področni sferi. Vendar pa se njihovi terminološki sistemi ne zdijo popolnoma integrirani niti v standarde ISO in IEC, izdelane za ta strokovna področja. Praktično bgo nemogoče razviti ta področja brez usklajevanja terminoloških sistemov. Standardi ISO in IEC so morda resnično orodje za reševanje tega problema, vendar se še vedno ne uporabljajo ustrezno.

Ključne besede: upravljanje z dokumenti, arhivi, terminologija, standardizacija, podatki, dokument, zapis, gradivo, informacijske tehnologije

Международная терминологическая система управления документами и архивами, стандартизированная ИСО и МЭК

АННОТАЦИЯ

В наше время терминологические проблемы становятся все более и более важными в следствии внедрения информационных технологий во все профессиональные сферы деятельности, включая управление документами и архивами. Но согласованы ли терминологические системы, используемые в управлении документами, архивами и ИТ? За согласованное использование терминологии отвечают международные организации по стандартизации (например, ИСО и МЭК) через разработку международных стандартов. Статья представляет результаты исследования основных стандартов ИСО и МЭК (например, ИСО 5127-2017, ИСО 15489-2016), используемых в управлении документами и архивами, а также ИТ с точки зрения совместимости стандартизированной международной терминологии этих сфер деятельности. Основным методом нашего исследования был сравнительный анализ различных определений одних и тех же терминов, закрепленных в международных стандартах, созданных для экспертов выше названных сфер деятельности. Понимание различий между понятиями «данные», «документ», «официальный документ» очень важно для выбора путей их защиты и сохранения как фактических объектов. Исследование показывает, что слишком рано говорить о согласованности терминологических систем, даже используемых в столь близких сферах деятельности, как управление документами и архивами. Это также актуально и для терминологии, используемой в ИТ, проникающей в вышеназванные сферы. Кроме того, терминологические системы не выглядят полностью интегрированными даже в стандартах ИСО и МЭК, разработанных для этих профессиональных сфер. Однако, практически невозможно развивать эти сферы деятельности без согласования их терминологических систем. Стандарты ИСО и МЭК могли бы быть реальными инструментами для решения данной проблемы, но они пока еще не используются полноценно.

Ключевые слова: управление документами, архивы, терминология, стандартизация, данные, документ, официальный документ, информационные технологии

1 Introduction

The process of IT introduction into all professional areas is imminent. But its introduction which is enthusiastically welcomed is often spontaneous and not always elaborate, which results in some problems, for instance, that of the compatibility of the terms used in different professional areas. The terminology from records management, archives and IT can be a good example of this statement. It is especially important when it comes to the basic records management and archives terms such as «*data*», «*document*», «*record*». Currently all these terms appear both in the traditional and digital context. Gi-

ven the fact that ISO and IEC standards are used in all these areas, we might question if the interpretation of these basic terms is identical in all of them. It should be noted that many scientists studied the terminology of records management and archives but the question of the compatibility of standardized terminology in these spheres and that of IT (including informational security) has been overlooked. This problem became even more evident after the publication of the English - Russian annotated dictionary of standardized terminology used in records management which was created by the author of this article together with L. Bayun and K. Bastrikova.[1] The dictionary has compiled the terms and definitions from more than 20 international standards used in records management, archives, quality management, informational security management, risk management etc. This dictionary contains about 600 entries and comments to them. Although the dictionary is intended for Russian experts, it can be interesting for all those who deal with records management and archives or work in adjacent areas.

Goal: The goal of this research is to determine the degree of the unification and compatibility of the above terms' definitions. The terms analyzed included «data», «document» and «record» which must be interpreted identically both in records and archives management and IT and in informational security management. The choice of the above terms for analysis is based on the need for developing unified conceptual approaches to the protection of the information contained in the «data», «document», «record». Therefore it is essential to understand the difference between these terms.

In order to achieve this goal it was necessary to perform some consecutive steps:

- identifying the main ISO and IEC standards used in the above mentioned areas;
- selecting the terms and their definitions from those standards;
- carrying out a comparative analysis of the terms' definitions.

Methods: The main method of the research was the comparative analysis of the above terms and their definitions.

Sources: The study was conducted on the material of 15 main ISO and IEC standards containing the terms and definitions used in records management and archives, yet not always intended for them. It is important to note that we analysed the ISO 5127 and ISO 15489 in two versions (old and new) which made it possible to follow the evolution of the ISO terminology system standardized for the above areas. The article contains the material from new republished standards and introduces into discourse a wide range of the terms and definitions standardized by ISO and IEC.

2 Analysis and discussion

The analysis of the terms and their definitions was carried out from general concepts to specific terms.

We begin with "data" as the most general concept.

This word appears in the special terminological standard ISO 5127-2001 which combines several term systems: libraries, publishing, archives, management etc. where «data» is defined as: «Representation of information in a formalized manner suitable for communication, interpretation and processing».[2]

In ISO 5127-2017 the definition of this term is slightly changed: «reinterpretable representation of information in a formalized manner suitable for communication, interpretation, or processing».[3] What is more, in the note to the term's entry we can read that «Data are often understood as taking the form of a set of values of qualitative or quantitative variables».[4]

We can see that the meaning of the term is a little vague, because «reinterpretable representation of information» suggests the possibility of its transfer and understanding with eventual distortions.

1. Варламова Л.Н., Баюн Л.С., Бастрикова К.А. Управление документами: Англо-русский аннотированный словарь стандартизированной терминологии. - М. 2017. (Varlamova L., Bayun L., Bastrikova K. Records management: English-Russian annotated dictionary of standardized terminology. - Moscow, 2017).

2. ISO 5127:2001 Information and documentation - Vocabulary. - definition 1.1.4.01.

3. ISO 5127:2017 Information and documentation - Vocabulary. - definition 3.1.1.15.

4. ISO 5127:2017 Information and documentation - Vocabulary. - definition 3.1.1.15.

Since this conference pays a special attention to general regulations on data protection, we have focused on the concept «data» standardized in ISO and IEC.

ISO 5127-2017 contains several types of «data» presented as sub-terms. They are:

- Intrinsic data: «data which can be read off a material object or document directly through its physical presence».[5]
- Extrinsic data: «data about a material object or document which cannot be obtained directly from it but only from the communication about it».[6]
- Linked data: «data which make connections among data available».[7]
- Raw data: «data in its originally acquired, direct form from its source before subsequent processing»[8]
- Processed data: «data which have been transformed from raw data or from an earlier data stage into a more refined stage by data cleaning, sorting, linking, verifying and similar operations».[9]
- Master data: «data that represent content features of their data objects which are the lasting base for certain recurrent processes, can be repeatedly used in a variety of operations and so remain stable for a longer time».[10]
- Dynamic data: «data the content of which is changing frequently and at asynchronous moments». At the same time «Dynamic data can have various flavours. It can be data streams that are generated by sensors when it is unpredictable when data segments will appear in time, i.e. data streams have gaps. It also can be data streams that are generated by humans in crowd sourcing scenarios where it is not clear when which cell in a database will be filled».[11]
- Mass data: «great quantities of data as the result of usually automatic measuring or collecting methods having been applied».[12]
- Big data: «extensive datasets/collections/linked data primarily characterized by big volume, extensive variety, high velocity (creation and use), and/or variability that together require a scalable architecture for efficient data storage (1) <placement>, manipulation, and analysis».[13]
- Research data: «data collected, observed, or created, for purposes of data analysis to produce original research information and results».[14]
- Science data: «data as the basis or the outcome of endeavours of science».[15]
- Open data: «data available/visible to others and that can be freely used, reused, republished and redistributed by any one».[16]
- Personal data: «data relating to an identified or identifiable individual».[17]
- Anonymized data: «personal data modified in such a way that direct reference to data subjects is eliminaed».[18]
- Sensitive data: «data with potentially harmful effects in the event of disclosure or misuse».[19]
- Classified data: «data to which access is restricted by administrative means varying according to the degree of data protection or information protection sought».[20]

5. ISO 5127:2017 Information and documentation - Vocabulary. - definition 3.1.10.01.

6. ISO 5127:2017 Information and documentation - Vocabulary. - definition 3.1.10.02.

7. ISO 5127:2017 Information and documentation - Vocabulary. - definition 3.1.10.03.

8. ISO 5127:2017 Information and documentation - Vocabulary. - definition 3.1.10.04.

9. ISO 5127:2017 Information and documentation - Vocabulary. - definition 3.1.10.05.

10. ISO 5127:2017 Information and documentation - Vocabulary. - definition 3.1.10.06.

11. ISO 5127:2017 Information and documentation - Vocabulary. - definition 3.1.10.07.

12. ISO 5127:2017 Information and documentation - Vocabulary. - definition 3.1.10.08.

13. ISO 5127:2017 Information and documentation - Vocabulary. - definition 3.1.10.09.

14. ISO 5127:2017 Information and documentation - Vocabulary. - definition 3.1.10.10.

15. ISO 5127:2017 Information and documentation - Vocabulary. - definition 3.1.10.11.

16. ISO 5127:2017 Information and documentation - Vocabulary. - definition 3.1.10.13.

17. ISO 5127:2017 Information and documentation - Vocabulary. - definition 3.1.10.14.

18. ISO 5127:2017 Information and documentation - Vocabulary. - definition 3.1.10.15.

19. ISO 5127:2017 Information and documentation - Vocabulary. - definition 3.1.10.16.

20. ISO 5127:2017 Information and documentation - Vocabulary. - definition 3.1.10.17.

- Confidential data: «data to which only a limited number of persons have access and which are meant for restricted use».[21]

- Reference data: «domain and community standardized data objects that define the set of permissible values to be used to populate other data objects».[22]

- Registered data: «data that has gone through a registration process and as part of this has an identifier and usually metadata to aid in its search and retrieval».[23]

- Real-time data: «data being received, processed and stored at the time of its occurrence with only small delays».[24]

- Active data: «data that denotes virtual units of data objects which are created dynamically by executable code».[25]

- Referable data: «data (digital or not) that is persistently stored and which is referred to by a persistent identifier».[26]

- Citable data: «referable data that has undergone registration and quality assessment and can be referred to as citations in publications and as part of research objects».[27]

- Digital data: «data in the form of a structured sequence of bits/bytes that represents information content».[28]

Having analyzed the definitions of data types in ISO 5127-2017 we can see that they are logical and well coordinated, even though overdetalized. For example, from our point of view, research and scientific data should not be divided because they can be transformed into each other.

Furthermore, the definition of «digital data» stands out because it does not explain their meaning / essence (like other definitions) but their form.[29] Following this logic we could create the terms and definitions for data on the paper or film. It would be more appropriate if this term's definition reflected the essence of «digital data».

Neither the old nor the new ISO 15489 versions contain the term «data», which might be due to the fact that this term is not widely used in records management as the legal status of the data is not clear.

The international standard IEC 82045 as well as ISO 15489 intended for records management experts define the term «data» as «Re-interpretable presentation of information in a formalized manner suitable for communication, interpretation or processing».[30]

The term «data» is also found in international quality management system standards, e.g. ISO 9000 where it is interpreted as «Facts about an object».[31]

However, the data are not always a fact and international standards used in informational security emphasize this aspect.

In IT standards the term «data» is interpreted as «Collection of values assigned to base measures, derived measures and/or indicators»[32].

21. ISO 5127:2017 Information and documentation - Vocabulary. - definition 3.1.10.18.

22. ISO 5127:2017 Information and documentation - Vocabulary. - definition 3.1.10.19.

23. ISO 5127:2017 Information and documentation - Vocabulary. - definition 3.1.10.20.

24. ISO 5127:2017 Information and documentation - Vocabulary. - definition 3.1.10.21.

25. ISO 5127:2017 Information and documentation - Vocabulary. - definition 3.1.10.22.

26. ISO 5127:2017 Information and documentation - Vocabulary . - definition 3.1.10.23.

27. ISO 5127:2017 Information and documentation - Vocabulary. - definition 3.1.10.24.

28. ISO 5127:2017 Information and documentation - Vocabulary. - definition 3.1.10.25.

29. It is necessary to note that in ISO 5127-2017 the term data is often used as a singular noun. However, I prefer to understand it in plural according to traditional grammar rules.

30. IEC 82045-1:2001 Document management -- Part 1: Principles and methods. - definition 3.1.4.

31. ISO 9000:2015 Quality management systems - Fundamentals and vocabulary. - definition 3.8.1.

32. ISO/IEC 15939:2007 Systems and software engineering - Measurement process. - definition 2.4.
ISO/IEC 27000-2014 Information technology. Security techniques. Information security management systems. Overview and vocabulary. - definition 2.20

In ISO 10209 there are three definitions of this term, regarding the sphere of its use:

- <digital product definition> «Information represented in a formal manner suitable for communication, interpretation or processing by human beings or computers».[33]
- <metadata> «Representation of facts, concepts, or instructions in a formalized manner suitable for communication, interpretation, or processing by human beings or by automatic means».[34]
- <document management> «Reinterpretable presentation of information in a formalized manner suitable for communication, interpretation or processing».[35]

It should be noted that two last definitions were copied from IEC 82045-1-2001 which has been used up to now.

So we can see that the term «data» has a specified meaning depending on the professional area. But at the same time it has a general meaning standardized by ISO 5127.

Thus, we can conclude that «data» is structurized information which is convenient for perception, interpretation and transfer, having legal value but not legal validity. What is more, data do not have strict (unified) rules of their creating, format, registration and storage. The main characteristic of this concept is the wide scope of what is covered by «data». In a way «document» and «record» are a data sub-type, but what is the difference between them?

As the terms «document» and «record» were analyzed in my paper for the Maribor conference in March 2018, here I will focus on the sub-terms of these two concepts. Importantly, the sub-terms «document» and «record» and the definitions of the former are presented only in ISO 5127. I will start with the term «document» having a more general meaning.

Both versions of ISO 5127:2001 and ISO 5127:2017 describe the term «document» more widely as «Recorded information or material object which can be treated as a unit in a documentation process».[36] However, the last version has several explanatory notes:

- «This definition refers not only to written and printed materials in paper or microform versions (for example, conventional books, journals, diagrams, maps), but also to non printed media such as machine-readable and digitized records, Internet and intranet resources, films, sound recordings, people and organizations as knowledge resources, buildings, sites, monuments, three dimensional objects or realty; and to collections of such items or parts of such items.
- Documents often are the manifestations of works. They can differ extensively in form and characteristics.
-In some professional usage, documents are sometimes referred to as "medium", "title" or "item"».[37]

We can see that the term "document" has a wide range of meanings, from the "data" to the "official document". It might have been the reason for adding numerous qualifiers to the term "document" in ISO 5127-2017 which gives the definitions to the following sub-terms:

- Analogue document - «analogue resource document usable without digital equipment».[38]
- Digital document - «information unit with a defined content that has been digitized or was originally produced in digital form». In the notes to the entry we can read the following: «This includes e-books, electronic patents, networked audiovisual documents and other documents when in digital form, e.g. reports, cartographic and music documents, preprints. Databases and electronic serials are excluded. A digital document can be structured into one or more files. A digital document consists of one or more content units».[39]

33. ISO 10209-2012 Technical product documentation - Vocabulary - Terms relating to technical drawings, product definition and related documentation. - definition 11.44.1.

34. ISO 10209-2012 Technical product documentation - Vocabulary - Terms relating to technical drawings, product definition and related documentation. - definition 11.44.2.

35. IEC 82045-1:2001 Document management -- Part 1: Principles and methods. - definition 3.1.4.
ISO 10209-2012 Technical product documentation - Vocabulary - Terms relating to technical drawings, product definition and related documentation. - definition 11.44.3.

36. ISO 5127:2001 Information and documentation - Vocabulary. - definition 1.2.02.

37. ISO 5127:2017 Information and documentation - Vocabulary. - definition 3.1.1.38.

38. ISO 5127:2017 Information and documentation - Vocabulary. - definition 3.3.3.01.

39. ISO 5127:2017 Information and documentation - Vocabulary. - definition 3.3.3.02.

- Digitized document - «document whose contents and/or appearance has been, through digital scanning techniques, transferred/converted into digital form».[40]

- Virtual document - «document that exists in concrete but non graphic form, e.g. on tape or disc or in a computer memory».[41]

- Secondary document - «secondary literature document being a work in its own right but which is built on analyzing, discussing or commenting one or more other documents, resulting usually in partial modification of the perspective taken so far on the topic». In the notes to the entry we can see the following: «The distinction between secondary documents and primary documents plays an important role in academic studies and in the rules for academic work. On occasions, a further refined analysis may be required to make the distinction between primary, derived and secondary documents».[42]

- Unpublished document - «document that has not been offered for reception to a general public».[43]

- Anonymous document - «document by an unknown or unmentioned author».[44]

- Public document - «document established (drawn) in due form by a public authority or a person legally entrusted to action the authority's behalf». And «public document» may be a notary. Example: «A public will, a commercial contract deposited with a notary, certificate of birth, university diploma, tax demand, a security (commercial paper), paper money».[45]

- Private document - «document established (drawn) with respect to certain form requirements and established by or between private persons without bearing a formal certification <statement> as sanctioned by public belief».[46] A private document can be a contract of privately lending money, an ordinary sales purchase contract.

- Government document - «document published at government expense or as required by law or published by an international agency». [47] The latter are the United Nations, the European Union, UNESCO etc.

- Legal document - «document laying down decisions of territorial corporate bodies, parliaments, or court rulings drawn up in accordance with certain rules».[48]

- Administrative document - «document created in pursuing the daily activities of a territorial corporate body or any organization in general».[49]

- Juridical document, law document - «document containing the discourse of juridical matters of any kind».[50]

- Technical document - «document treating of matters of technology in the study, construction and examination of technical apparatuses».[51]

- Business document - «document created by any functional role within a commercial enterprise».[52]

- Personal document - «document that has legal implications for, or a particularly intimate relation to, a person's road of life and which may be part of a personal estate». In the examples to this tern we find «Birth certificates, family registers, passports, work contracts, visa, membership cards etc.; a personal diary; love letters < document >».[53]

40. ISO 5127:2017 Information and documentation - Vocabulary. - definition 3.3.3.04.

41. ISO 5127:2017 Information and documentation - Vocabulary. - definition 3.3.3.12.

42. ISO 5127:2017 Information and documentation - Vocabulary. - definition 3.4.1.07.

43. ISO 5127:2017 Information and documentation - Vocabulary. - definition 3.4.1.10.

44. ISO 5127:2017 Information and documentation - Vocabulary. - definition 3.4.1.18.

45. ISO 5127:2017 Information and documentation - Vocabulary. - definition 3.4.4.19.

46. ISO 5127:2017 Information and documentation - Vocabulary. - definition 3.4.4.20.

47. ISO 5127:2017 Information and documentation - Vocabulary. - definition 3.4.6.01.

48. ISO 5127:2017 Information and documentation - Vocabulary. - definition 3.4.6.02.

49. ISO 5127:2017 Information and documentation - Vocabulary. - definition 3.4.6.03.

50. ISO 5127:2017 Information and documentation - Vocabulary. - definition 3.4.6.06.

51. ISO 5127:2017 Information and documentation - Vocabulary. - definition 3.4.6.07.

52. ISO 5127:2017 Information and documentation - Vocabulary. - definition 3.4.6.10.

53. ISO 5127:2017 Information and documentation - Vocabulary. - definition 3.4.6.24.

Having analyzed the above terms it can be concluded that in most cases the definition refers to them as to sub-terms of the term «document» used in business activity and which may have legal consequences. The only exception is the definition of the sub-term «digital document» interpreted as «information unit with a defined content...», which emphases a different essence of this concept, connecting it with «data» and partly with «record».

In ISO 15489:2001 and ISO 30300:2011 the term «document» is interpreted as «Recorded information or object which can be treated as a unit».[54] In ISO 15489:2016 there is no such a term.

In ISO 25964 we can see that «document» is «any resource that can be classified or indexed in order that the data or information in it can be retrieved»[55]. The note to the entry has the explanation to the definition: «This definition refers not only to written and printed materials in paper or microform versions (for example, conventional books, journals, diagrams, maps), but also to non-printed media such as machine-readable and digitized records, Internet and intranet resources, films, sound recordings, people and organizations as knowledge resources, buildings, sites, monuments, three-dimensional objects or realty; and to collections of such items or parts of such items».[56] Interestingly, while the definition of this term differs from that of ISO 5127-2017, the latter fully repeated its explanation (see above, p. 7).

ISO 10209 contains two definitions of the concept «document»:

- «Fixed and structured amount of information intended for human perception that can be managed and interchanged as a unit between users and systems».[57]
- «Any medium with information recorded on or in it».[58]

In ISO 9000 the «document» is «Information and the medium on which it is contained». The entry has examples of this term, they are: record, specification, procedure document, drawing, report, standard. In the notes to the entry we can see that:

- «The medium can be paper, magnetic, electronic or optical computer disc, photograph or master sample, or combination thereof.
- A set of documents, for example specifications and records, is frequently called "documentation".
- Some requirements (e.g. the requirement to be readable) relate to all types of documents. However there can be different requirements for specifications (e.g. the requirement to be revision controlled) and for records (e.g. the requirement to be retrievable)».[59]

In IEC 82045 the term «document» is interpreted as « fixed and structured amount of information that can be managed and interchanged as a unit between users and systems».[60] The term «record» is not included in IEC 82045.

We have already noted that the concepts «document» and «record» are not synonymic and it is clearly demonstrated by their definitions in ISO 5127.

There are two definitions of the term «record» in both versions of this standard.

In 2001 version the term «record» was interpreted as follows:

54. ISO 15489-1:2001 Information and documentation -Records management -Part 1: General. - definition 3.10.
ISO 30300:2011 Information and documentation - Management systems for records - Fundamentals and vocabulary. - definition 3.1.3.
ISO/IEC 11179-5:2015 Information technology - Metadata registries (MDR) - Part 5: Naming principles. - definition 2.2.

55. ISO 25964-1:2011 Information and documentation - Thesauri and interoperability with other vocabularies - Part 1: Thesauri for information retrieval. - definition 2.15.

56. ISO 25964-1:2011 Information and documentation - Thesauri and interoperability with other vocabularies - Part 1: Thesauri for information retrieval. - definition 2.15.

57. ISO 10209-2012 Technical product documentation - Vocabulary - Terms relating to technical drawings, product definition and related documentation. - definition 11.54.2.

58. ISO 10209-2012 Technical product documentation - Vocabulary - Terms relating to technical drawings, product definition and related documentation. - definition 11.54.3.

59. ISO 9000:2015 Quality management systems -Fundamentals and vocabulary - definition 3.8.5.

60. CEI/IEC 82045-1:2001 Documentation management. Part 1: Principles and methods.- definition 3.2.3.

1. «Set of data on one person or object, selected and presented for a predefined specific purpose».[61]
2. «Document created or received and maintained by an agency, organization or individual in pursuance of legal obligations or in the transaction of business».[62]

In 2017 version the definition of the term «record» was modified: «part of a document or document containing a structured and internally organized set of self contained but related data on one person or other object, selected and presented for a predefined specific purpose».[63]

In the definitions of the sub-terms of this concept the interpretation of «record» as «set of data» is prevailing. Here are the examples from ISO 5127-2017:

- Catalogue record - «bibliographic record established for a bibliographic item».[64]
- Local record - «bibliographic record <set of data> containing additionally data pertaining to one institution or application only».[65]
- Electronic record, machine readable record - «record <set of data> stored in a machine readable medium».[66]
- Audiovisual record - «carrier for the recording and storage <placement> of sounds and images».[67]
- Current records, current archives - «records <documents> regularly used for the conduct of the current business of an agency, institution or organization».[68]
- Semicurrent records - «intermediate archives records <documents> required infrequently in the conduct of current business».[69]
- Non current records - «records <documents> no longer needed in the conduct of current business».[70]
- Public records:

<government records>- «records <documents> or archives <records> created or received, and accumulated by government agencies in the conduct of public business».[71]

<legal term> - «public records <government records> which are so designated in legislation».[72]

- Authority record - «entry in an authority file».[73]

Significantly, ISO 5127 does not contain «archival document» and «archival record» as individual terms. Yet, some definitions of the sub-terms of «record» are connected with archives.

Having analyzed the above sub-terms of the term «record» we might have concluded that this term is the sub-type of the term «document». However, the definitions of the sub-terms «public record» and «public document» in ISO 5127-2017 do not make this conclusion possible.

In IT-standards developed by ISO and IEC the term «record» can be understood as a way of fixing the information on a carrier. It is worth noting that IT standards prefer the term «document» to «record».

The definitions of the term «record» in the old and new versions of ISO 15489 describe it with the help of the term «information» and completely destroy the idea that «record» is a sub-type of «document».

61. ISO 5127:2001 Information and documentation - Vocabulary. - definition 1.1.3.11

62. ISO 5127:2001 Information and documentation - Vocabulary. definition 2.2.1.08

63. ISO 5127:2017 Information and documentation - Vocabulary. - definition 3.1.13.22.

64. ISO 5127:2017 Information and documentation - Vocabulary. - definition 3.1.13.17.

65. ISO 5127:2017 Information and documentation - Vocabulary. - definition 3.1.13.18.

66. ISO 5127:2017 Information and documentation - Vocabulary. - definition 3.3.3.11.

67. ISO 5127:2017 Information and documentation - Vocabulary. - definition 3.4.5.17.

68. ISO 5127:2017 Information and documentation - Vocabulary. - definition 3.6.3.01.

69. ISO 5127:2017 Information and documentation - Vocabulary. - definition 3.6.3.02.

70. ISO 5127:2017 Information and documentation - Vocabulary. - definition 3.6.3.03.

71. ISO 5127:2017 Information and documentation - Vocabulary. - definition 3.6.3.04.

72. ISO 5127:2017 Information and documentation - Vocabulary. - definition 3.6.3.05.

73. ISO 5127:2017 Information and documentation - Vocabulary. - definition 3.7.2.28.

In the first version of ISO 15489 (2001) «record» is «information created, received, and maintained as evidence and information by an organization or person, in pursuance of legal obligations or in the transaction of business».[74]

In the new version of ISO 15489 (2016) «record» is «information created, received and maintained as evidence and as an asset by an organization or person, in pursuit of legal obligations or in the transaction of business».[75]

As can be seen, the above definitions are not very different from each other and the new ISO 15489 version just adds some minor details.

So, it can be concluded that the definitions of that terms «document» and «record» are not coordinated in ISO and IEC standards and can be interpreted both as synonyms and as different concepts.

3 Conclusions

The analysis of the international experience in terminology standardization makes it possible to conclude that the terminological system standardized by ISO and IEC is not well harmonized and can contain several sometimes rather controversial definitions of the same term. We can see that situation in the standards regulating both different and the same professional areas (e.g. records and archives management). The terms «document» and «record» are good examples of this practice. It means that the terminology unification has not been completed even on the level of the International Organization on Standardization (ISO). The introduction of international terminology did not improve this situation in many professional areas, including records and archives management, because the latter started to use numerous IT-terms not coordinated with the terminology systems of their spheres. For instance, the term «document» is often synonymic to the term «data», which is basically wrong from the point of view of records management and archives. The situation is aggravated by different interpretations of the same terms in ISO and IEC standards used in adjacent areas. E.g., the new version of the main international records management standard (ISO 15489:2016) coordinated its terminology with ISO 30300 series but did not provide the uniform understanding of the terms «document» and «record» in the standards for IT and quality management. Although the main terminological standard ISO 5127 was updated in 2017, the system of coordinating the identical terms used in different professional areas (even close to each other as library science, document science, archives) was not fully developed.

All this emphasizes the complexity and the scope of the tasks on terminological compatibility that experts are facing. The present research has shown the urgent need to solve this problem on the international level through ISO and IEC standards which are globally used.

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74. ISO 15489-1-2001 Information and documentation -Records management -Part 1: General. - definition 3.15.

75. ISO 15489-1-2016 Information and documentation -Records management -Part 1: Concepts and principles. - definition 3.14.

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SUMMARY

The present study is devoted to the analysis of the commonality of international standardized terminology used in the records and archives management. At the present stage, the terminological system for this area is standardized at the international level through a number of ISO and IEC standards. The most important among them are ISO 5127, ISO 15489, ISO 30300, IEC 82045, etc. However, we can not be limited to one specialized terminological system and should know and use the terminology of the related fields of activity (e.g. information technology, information security, quality management, etc.). These terminological systems are standardized in the basic standards ISO/IEC 27000, ISO 9000, ISO/IEC 20944, ISO 10209, ISO 25964, etc. All of the above standards and others have been used as sources in our research. Particular attention in the analysis of terminology was paid to the basic terms «data», «document», «record» and their sub-terms. The choice of these concepts was determined by the need to develop common conceptual approaches to ensure the safety and protection of these informational resources (types, terms and methods of their storage). As a result of this research it can be concluded that the above terms are not fully unified within the terminological system used in the record and archives management, and are inconsistent with the terminology of the related fields of activity. It is essential to note that two of the world's largest international standardization organizations, i.e. ISO and IEC, jointly develop the majority of methodological and terminological standards used in IT and information security, which provides a uniform approach to the terminology of this field of activity. With regard to the standardization of methodological and terminological aspects in records and archives management, priority is given to ISO. Yet the latter develops the standards without harmonizing them with IEC, which leads to inconsistencies in terminological systems. This study has shown the need to address the issue of the consistency of terminological systems in records and archives management with those of the related spheres at the international level. At the same time, it has demonstrated the necessity to approach more cautiously the question of the verbatim use of international terminology and stressed the importance of its adaptation to national terminological systems and established practices.

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