ARCHIVISTIC DESCRIPTION, RECORDS IN CONTEXTS (RiC) AND ACCESS TO MEMORY (AToM): EXPLORATORY ANALYSIS OF SCIENTIFIC LITERATURE

DESCRIÇÃO ARQUIVÍSTICA, RECORDS IN CONTEXTS (RiC) E ACCESS TO MEMORY (AtoM): ANÁLISE EXPLORATÓRIA DA LITERATURA CIENTÍFICA

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e-Location ID: 019009

ABSTRACT

The possibilities arising from the expansion of the technological resources have contributed to the reconfiguration of the information systems and the forms of representation and access to the information resources. With the archival description the conformation has occurred, besides the computational mechanisms and software applications, with the proposition of the international conceptual model of archival description, identified as Records in Contexts (RiC). Thus, the central question of this research is to understand the scenario of the scientific literature on archival description, the international conceptual model of archival description, identified as Records in Contextx (RiC), proposed by the International Council on Archives (ICA) and archival description software, called AtoM, whose initial development was also given by the ICA. The research, with a qualitative approach, also makes use of the quantitative approach, given the need to identify the highlights in the research results. Applied in nature seeks exploratory objectives and makes use of bibliographical and documentary research to reach the results. For the analysis of the data collected, graphs, tables, tags and content clouds were used. The results indicate as documents that answer the proposed question.

KEYWORDS

Archival description. Archive automation. Archivology. Archival documents. Archival description standards.

RESUMO

As possibilidades advindas da ampliação dos recursos tecnológicos têm contribuído para a reconfiguração dos sistemas de informação e das formas de representação e acessos aos recursos informacionais. Com a descrição arquivística a conformação tem ocorrido, além dos mecanismos computacionais e de aplicações de softwares, com a proposição do modelo conceitual internacional de descrição arquivística, identificado como Records in Contexts (RiC). Assim, o questionamento desta pesquisa centra-se em compreender qual o cenário da literatura científica sobre a descrição arquivística, o modelo conceitual internacional de descrição arquivística, identificado como Records in Context (RiC), proposto pelo International Council on Archives (ICA), e o software de aplicação de descrição arquivística, denominado AtoM, cujo desenvolvimento inicial também se deu pelo ICA. A pesquisa, com abordagem qualitativa, faz uso também da abordagem quantitativa, haja vista a necessidade de se identificar quais são os destaques nos resultados da pesquisa. De natureza aplicada busca objetivos exploratórios e faz uso da pesquisa bibliográfica e documental para o alcance dos resultados. Para a análise dos dados coletados fez-se uso de gráficos, tabelas, nuvens de tags e de conteúdo. Os resultados indicam como documentos que respondem à questão proposta.

PALAVRAS-CHAVE

Descrição arquivística. Automação de arquivo. Arquivologia. Documento arquivístico. Normas de descrição arquivística.

1 INTRODUCTION AND INITIAL THEORETICAL ASPECTS

The information science, based on the considerations presented by Borko (1968), is involved with processes of production, organization and information retrieval. Based on this perspective, this research is conceived that, although exploratory and with the pretension of discussing the archival description, seeks the advance of critical and analytical studies of the area, through interdisciplinary and scientific collaboration.

The relationship between Information Science and Archives can be brought to light from Araújo (2011, p. 118-119), who argues that, if at first, Archiveology was concerned with the production of technical knowledge and had a condition with the History or Administration, it was with Information Science that Archiveology had the opportunity to construct "properly scientific knowledge", to problematize "questions that go beyond the institution of the archive: information policies, personal archives, documentary realities not dealt with from the archival point of view, among others. " According to Fonseca (2005), the existence of interdisciplinarity between Information Science and Archival Science is based on information, since it is a central element of the study of both.

Thus, if in a broad perspective the article has adherence to the archival description, its object has an emphasis on the archival description proposed by the Experts on Archival Description of the International Council on Archives (EGAD/ICA), entitled Records in Contexts: the conceptual model for archival description, published in 2016, as draft version.

According to International Council on Archives (2016) and Llanes Padrón (2016), the EGAD/ICA was conceived in 2012 with the objective of developing an international conceptual model for archival description so as to ensure the integration and interrelation of four description patterns[1] in unified file information systems. With responsibility for the development of the conceptual model and its documentation, the group analyzed the conceptual models developed in Australia, Spain and Finland and observed existing models of libraries and museums. The EGAD / ICA initially developed the RiC in two parts: a conceptual model for archival description (RiC-CM) and an ontology (RiC-O).

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[1] The standards of description to which they refer are: ISAAR (CPF): International Standard Archival Authority Record for Corporate Bodies, Persons and Families, having published the first edition in 1996 and the second in 2003; ISDIAH: International Standard for Describing Institutions with Archival Holdings, published in 2008; ISDF: International Standard for Describing Functions, 2007; and ISAD (G): General International Standard Archival Description, with the second edition published in 2000, which was already defined in the foreword to the first edition, published in 1994.

According to the International Council on Archives (2016, p.1):

> ICA charged EGAD with developing a standard for the description of records based on archival principles. For the 2012-2016 term, EGAD is specifically charged with developing a comprehensive descriptive standard that reconciles, integrates, and builds on the four existing standards: General International Standard Archival Description (ISAD (G)); International Standard Archival Authority Records-Corporate Bodies, Persons, and Families (ISAAR (CPF)); International Standard for Describing Functions (ISDF); and International Standard for Describing Institutions with Archival Holdings (ISDIAH).

The use of standards, procedures and models for archival description is recognized as a key issue because of the challenges posed by the increasing number of archives in electronic and digital format. That said, it is necessary to search for means that promote the organization and facilitate access to this information, made possible by interoperability actions between systems. It is understood, therefore, that the use of softwares is intended to simplify the search and retrieval of archival records and ensure the location and access to them, as well as to contribute to interoperability between file management institutions and archival management itself.

Thus, the central question of this research is: what is the scenario of the scientific literature on archival description, the international conceptual model of archival description, identified as Records in Contextx (RiC), proposed by the International Council on Archives (ICA) and the archival description software, called AtoM, whose initial development was also made by ICA? The understanding of this subject is considered relevant because of the importance of information in the trajectory of human evolution. In order to corroborate this view, Barreto (2002) affirms, for whom information is able to tune the world, and Capurro (2003), to understand that Information Science has information as an object production, selection, organization, interpretation, storage, retrieval, dissemination, transformation and use.

If, on the one hand, the correlation between Information Science and Archiveology is given by its object of study, information, it is by the archival description that the theoretical and practical conceptions are consistent and, hence, the importance of Information Technology and Communication in this research. This makes software applications, such as AtoM[2], capable of consolidating and interpreting the stored archival information.

Llanes Padrón (2016) argues that the purpose of the description has turned, in all countries, to the same direction: the control of documentary funds. It is therefore necessary to provide more open access to the documents and, for this, knowledge of the funds is required in order to locate and retrieve the information. It is understood, therefore, that the description

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[2] Acronym for Access to Memory, AtoM is an open-source, web-based, standards-based software developed by the International Council on Archives. (ARTEFACTUAL SYSTEMS, 2015).

must attend to the basic function of the archives, that of facilitating the consultation of documents, and for that, it becomes a fundamental requirement to have in view the organization and location of the existing documentary types.

The technological evolution achieved in the last decades of the twentieth century, according to Llanes Padrón (2016), allowed to dissociate the concept of description from the search instrument. If, on the one hand, the description is intended for the elaboration of the representation (activity), which may have different forms of manifestation (query instruments), it is through descriptive databases that it becomes possible to obtain different output formats (various forms of canvas or different types of shapes). For this statement Llanes Padrón (2016) cites the proposal of Cook and Procter (1989), in which the authors consider that the description is no longer the representation of the documents that use descriptors and these representations, but that, in practice, they materialize in systems or instruments.

The International Council on Archives (2000, p.14), responsible for the international standardization of the archival description process, defines it as:

> The elaboration of an accurate representation of a unit of description and its component parts, if any, by extracting, analyzing, organizing and recording information that serves to identify, manage, locate and explain archival documents and the context and file system that produced them. This term also applies to the product of this process.

It is based on the understanding of this concept of archival description that this text will be sought to reach the objective of understanding the scenario of the scientific literature on archival description, Records in Contexts (RiC), international conceptual model proposed by the International Council on Archives, and AtoM, software for the application of archival description.

This research is justified based on the understanding that the norms for describing archival documents, according to Brazil (2006, p.10), "are aimed at ensuring consistent, appropriate and self-explanatory descriptions. The standardization of the description, besides providing greater quality to the technical work, contributes to the economy of the resources applied and to the optimization of the recovered information. "Understanding the correlation of the archival description with the RiC enshrines the view of this as the standard to be adopted internationally for the archival description[3], developed by EGAD / ICA, which provides both the perspective of a conceptual model, embodied in the RiC-CM, and that of an

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[3] RiC-O is consecrated as a formal version of the RIC-CM and is not the subject of this research. The International Council on Archives (2016) reports that RiC-O will provide the archival community with the ability to make the archival description available using Linked Open Data (LOD) techniques and to employ a specific vocabulary and conceptual structure for archival description.

ontology, present in the RiC-O. The option to study the RiC-CM was due to the fact that EGAD / ICA has identified and defined in this the primary descriptive entities and their interrelations that constitute archival description. The option to study AtoM as the third object of this research was due to the fact that it promoted the view of the relations between the descriptions of an archival registry through the registration of authority with the description of documents, functions and custodial institutions, for incorporating digital objects, for allowing both import and export of records in various formats, and because it is a tool that will allow access to the world memory and facilitate digital preservation.

The initial theoretical aspects involve the understanding that the purpose of the archival description is to identify and elucidate the context and content of the archival documents. In this panorama, there is the work developed by the International Council on Archives (ICA) in promoting the preservation and use of archives around the world, working for the protection and improvement of world memory.

The ICA, through the Expert Group on Archival Description (EGAD), proposed a formal conceptual model for the archival description that identifies and defines the essential components of the archival description and their interrelationships. This model is Records in Contexts: a conceptual model for archival description, which was released in September 2016 for the preliminary public consultation.

ICA was also responsible for the creation of ICA-AtoM software in 2003, in partnership with Artefactual Systems. As of 2014, under the name AtoM, both the maintenance and the management of the software were under the responsibility of the company Artefactual Systems. This change, however, did not make the design and adherence of the AtoM change: from its creation to the current version, international ICA standards are considered. Consequently, with the launch of RiC-CM in September 2016, the opportunity arose to develop a study on the feasibility of RiC-CM and a future implementation in AtoM.

In this scenario, we present the methodological options that allow us to find answers to the initial questioning and to the proposed objective.

2 METHODOLOGICAL PROCEDURES

The research, with a qualitative approach, also makes use of the quantitative approach, given the need to identify the highlights in the research results. Applied in nature seeks exploratory objectives and makes use of bibliographical and documentary research to reach the results. For the analysis of the collected data it is made use of graphs, tables, clouds of tags and of content.

The international databases, of a multidisciplinary nature, Web of Science (WoS) and Scopus, were delimited as a research universe, in order to realize in which other areas the objects of this research have aroused interest ; the Networked Digital Library of Theses and Dissertations (NDLTD) of international scope, and the BDTD, Brazilian Digital Library of Theses and Dissertations, in an attempt to have the dimension of the results of research of the graduate; and, in the field of Information Science, of a disciplinary nature, the national databases BENANCIB, repository of the presentations and lectures given at the National Meetings of Research and Post-Graduation in Information Science (Enancib), and BRAPCI, from periodicals in Science of Information; and International, E-prints in Library & Information Science (e-LIS), Information Science & Technology Abstracts (ISTA), Library and Information Science Abstracts (LISA), Library, Information Science & Technology Abstracts (LISTA). Given the nature of the Portal of Periodicals of CAPES, it was chosen to use it in the researches, without, however, classifying it as to its scope and domain area.

For the data collection, made between the second week of January to the second week of February 2018, we used search terms, with terms in Portuguese, Spanish and English (sometimes with truncation of words): descrição arquivística, descripción archivistica and archival description (for the first object);); modelo conceitual, modelo conceptual, conceptual model, records in contexts (for the second object); atom, ica atom, ica-atom (for the third object); and the truncated term archiv* e arquiv*.

In order to carry out an initial exploration of the concepts and their visibility in the respective databases, a general search was made for the expressions, not yet being combined as search expressions. It can be seen, in chart 1, how recurrent each expression is addressed in multidisciplinary databases.

Chart 1. Number of documents retrieved per search term in multidisciplinary databases.

TERMS	WoS	Scopus	NDLTD	BDTD	CAPES Periodicals
descrição arquivistica	0	7	4.845	277	188
archival description	626	1.121	242.077	105	95.515
descripción archivística	0	3	2.722	11	322
arquiv*	91	1.447	11.605	48.149	75.145
archiv*	94.900	124.884	46.584	67.155	4.466.569
"ICA-ATOM"	4	6	38.525	20	66
ATOM	605.076	749.429	36.767	10.739	1.909.024
"ICA ATOM"	4	6	38.525	20	14.715
modelo conceptual	15	305	110.703	5.068	50.415
conceptual model	77.745	112.481	761.155	5.068	1.149.163
modelo conceitual	0	49	60.437	11.895	6.831
records in contexts	31.460	25.414	707.107	293	641.437

Source: The authors

With this result, it was possible to identify that the language adopted in the search expression impacts the results, which reaffirms English as a language used in scientific communication, internationally and in databases of a multidisciplinary nature. Note the quantitative distancing of the results when using the expressions aimed at understanding the 'archival description', the 'conceptual model', and the 'archiv' and 'archiv' truncation. In addition, when adopting the term 'atom', in order to designate 'AtoM' (acronym for Access to Memory), we noticed the largest number of documents retrieved in this research: more than 600 thousand and 700 thousand, respectively in WoS and Scopus databases.

Chart 2 allows the evaluation of the recurrence of search expressions in disciplinary databases in the field of Information Science. It is possible to note in BENANCIB a certain parity in the results when using the terms in Portuguese and in English referring to the concepts of archival description and the conceptual model. It is assumed that this is motivated by the use of the two languages when submitting articles in Enancib. However, this does not occur with the other databases surveyed.

Chart 2. Number of documents retrieved by search term in databases in the field of Information Science.

TERMS	BENANCIB	BRAPCI	e-LIS	ISTA	LISA	LISTA
descrição arquivistica	368	69	98	0	8	8
archival description	384	33	537	174	3.294	655
descripción archivística	111	7	521	2	83	10
arquiv*	1.718	0	710	3	632	384
archiv*	642	0	9.069	28.774	52.207	146.175
"ICA-ATOM"	79	0	21	1	15	10
ATOM	23	39	233	335	790	824
"ICA ATOM"	79	0	21	1	15	10
modelo conceptual	2.383	121	1337	3	276	13
conceptual model	2.383	145	1328	628	10.601	1.220
modelo conceitual	2.582	152	219	3	197	13
records in contexts	3.116	9	1	98	13.010	295

Source: The authors

This initial step allowed us to evaluate what would be the best search options to be adopted in the bases, given their specificities. Table 3 summarizes the search options adopted in each of them.

Chart 3. Search options in databases.

Data Bases	Type of Search	Specificities
WoS	Simple/basic	Topic, Main Base, Complete Expressions
Scopus	Simple/basic	Article title, Abstract, Keywords
NDLTD	Simple/basic	Global ETD Search
BDTD	Simple/basic	All Fields
BENANCIB	Simple/basic	All Fields
BRAPCI	Simple/basic	All Fields

e-LIS	Simple/basic	All of
ISTA	Simple/basic	Boolean/phrase
LISA	Simple/basic	Reviewed by Experts
LISTA	Simple/basic	Boolean/phrase
CAPES Periodic	Simple/basic	Search by subject

Source: The authors

Considering the results obtained in this preliminary search, we chose to define the use of Boolean operators AND and OR in the set of expressions adopted in the search expressions. Three types of different expressions were elaborated:

a) search expression 1, searched for results in which it would be possible to understand the relationship between archival description, or archiveology, with AtoM software, or ICA-ATOM (as previously identified):

((("descrição arquivistica" OR "archival description" OR " descripcion archivistica") OR (archiv * OR archiv *)) AND (atom OR "ica atom" OR "ica-atom"));

b) expression of search 2, adopted to identify results for the relationship between archival or archival description, with the conceptual model, without, however, identifying it, due to the opportunity to discover other discussions about conceptual models applied to the archival description:

((("descrição arquivistica" OR "archival description" OR "descripcion archivistica") OR (arquiv* OR archiv*)) AND ("modelo conceitual" OR "conceptual model" OR "modelo conceptual"));

c) search expression 3, chosen to verify documents that deal with the relationship of the AtoM software with the conceptual model:

((atom OR "ica atom" OR "ica-atom") AND ("modelo conceitual" OR "conceptual model" OR "modelo conceptual")).

Table 1. Search results for expressions 1, 2 and 3 in the databases.

Data Bases	Search Expression 1	Search Expression 2	Search Expression 3	TOTAL
Wos	153	77	28	258
Scopus	189	167	51	407
NDLTD	1.940.118	2.290.694	2.156.971	6.387.783
BDTD	1.528	331	23	1.882
BENANCIB	57	1537	0	1.594
BRAPCI	7	1	0	8
e-LIS	0	0	0	0
ISTA	4	73	1	78
LISA	193	0	0	193
LISTA	24	155	1	180
CAPES Periodicals	11.618	65.705	456.849	534.172
TOTAL	1.953.891	2.358.740	2.613.924	6.926.555

Source: The authors

Table 1 shows the quantitative results obtained in the searches performed in the databases. During the search, it was noted that in some databases the number of documents recovered exceeded 1,000 documents in at least one of the expressions. Thus, it was established that, on these bases, the search would be redone using the expression "ICA-ATOM".

Table 2. Search results for the expression "ICA-ATOM" in the NDLTD, BDTD and Periodic databases of CAPES.

Data bases	"ICA-ATOM"
NDLTD	5
BDTD	20
BENANCIB	1
CAPES Periodicals	45
TOTAL	70

Source: The authors

Once a result was obtained for the specific search by the name of the software, "ICA-ATOM", as presented in table 2, it was also chosen to perform a new search in all the databases, with the expression that identifies the conceptual model of archival description of ICA: "records in contexts". Thus, table 3 identifies, quantitatively, the documentary mass analyzed.

Table 3. Quantitative identification of the documentary mass analyzed, based on the relation between the search expressions and the databases searched. (NS - not searched)

Data bases	Search Expression1	Search Expression2	Search Expression3	ICA-ATOM	Records in contexts	TOTAL
Wos	153	77	28	NP	2	260
Scopus	189	167	51	NP	9	416
NDLTD	NP	NP	NP	5	13	18
BDTD	NP	NP	NP	20	NP	20
BENANCIB	0	0	0	1	NP	1
BRAPCI	7	1	0	NP	NP	8
e-LIS	0	0	0	NP	1	1
ISTA	4	73	1	NP	2	80
LISA	193	0	0	NP	6	199
LISTA	24	155	1	NP	2	182
CAPES Periodicals	NP	NP	NP	45	18	63
TOTAL	570	473	81	71	53	1248

Source: The authors

Of this amount of 1,248, duplicate records were excluded, among which works of events published in journals, considered as articles, since this publication was identified in this way in the bases and not as event work, and other types of documents that, for the purpose of this research were considered irrelevant, such as slide presentation. Thus, this study analyzed 917 documents. Graph 1 shows the dispersion of documents analyzed by publication type.

Graph 1. Dispersion of documents analyzed by type of publication
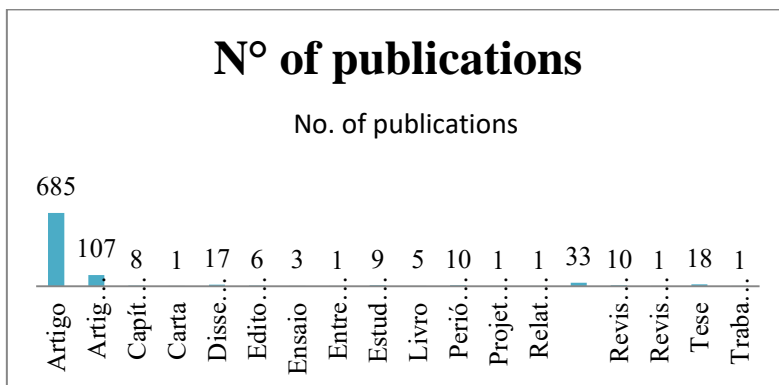
Source: The authors.

The compilation of the obtained research data was done using the Excel worksheet, in which the following data were recorded: base, search expression, type of document, defense institution; author (with fields from 1 to 24, due to occurrence of co-authors), article title, journal title, year, keywords, abstract, link for access, and indication whether the document repeats (whether in the same or in different bases).

For the analysis of the results, to be presented in the next section, there was standardization of the value of the following fields: author, periodical, type of document and keywords[4]. The results will be presented through graphs, tables, tag clouds and content analysis. For the elaboration of the tag clouds TagCrowd was used, a web application designed for the visualization of word frequencies. For the definition of the data to be used for the generation of Word Clouds keywords in English, capitalized in each word (exception for acronyms, since the spelling was respected), joining of expressions (so as not to have space between the words of an expression, e.g. InformationScience). In the definition of parameters in TagCrowd it was adopted: language of the text: English; maximum number of words to display: 50; show frequencies: no; grouping similar words: no; convert to lower case: keep original.

3 ANALYSIS OF RESULTS

The first result to be presented concerns a general analysis of the terms adopted in the documents obtained as a result of searching the multidisciplinary and disciplinary databases in the field of Information Science, as shown in figure 1. If, in a first moment (Chart 1 and

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[4] Having identified variations in writing, we chose to use the terms in English, as indicated in the databases. Numerical terms that, after evaluation, referred to the researches of the area of physics, chemistry and astronomy, were not part of the analysis.

Chart 2), separating them into multidisciplinary databases (WoS, Scopus, NDLTD, BDTD and CAPES Periodicals) and disciplinary databases (BENANCIB, BRAPCI, and -LIS, ISTA, LISA, LISTA), it was decided to know the spectrum of the keywords adopted in the documents obtained as an integrated result of the bases.

Figure 1. Word Cloud of the terms indicated in the documents retrieved in the multidisciplinary and disciplinary databases in the area of Information Science
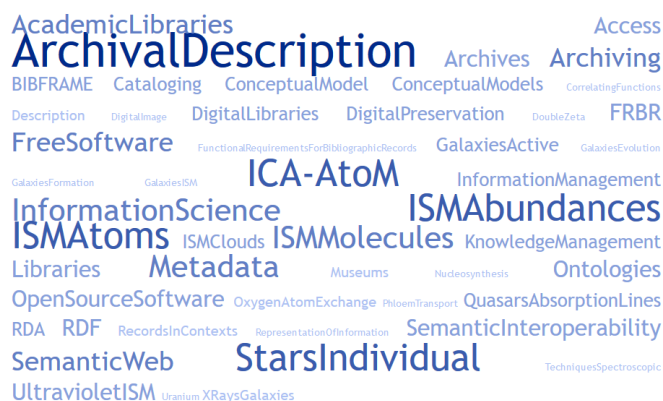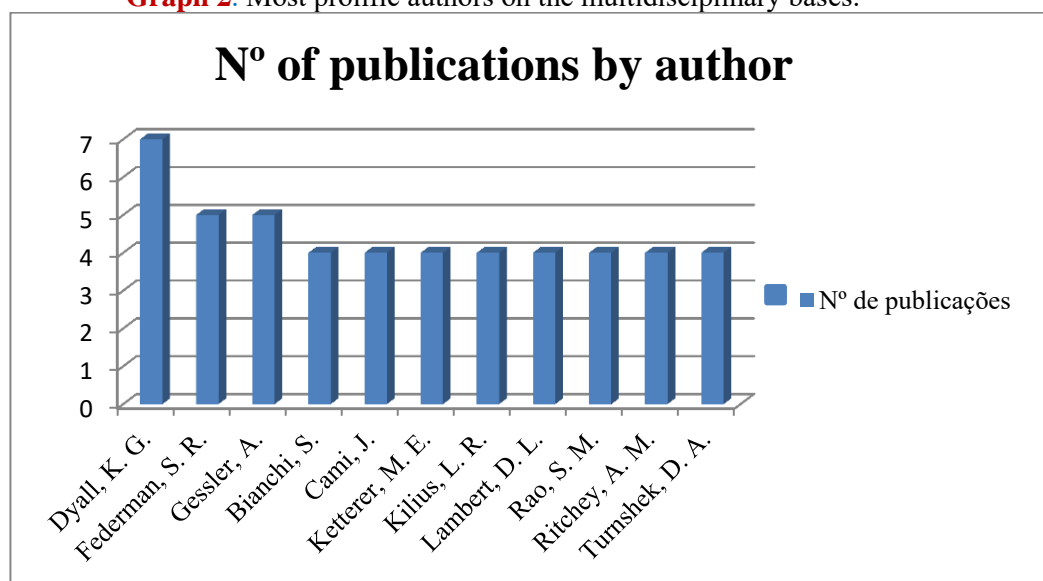

Source: The authors.

The evaluation of figure 1, however, makes it possible to identify that, if the documents obtained in the two categories of databases are adopted as a documentary mass, there may be a deviation in the analysis of the data, since they would also represent those that are not part of the scope of research, such as those referring to ISM Abundances, ISM Atoms, or Stars Individual.

Thus, we chose to treat the results separately: data from the multidisciplinary databases (with 540 documents) and disciplinary data bases in the area of Information Science (377 documents).

The perception about the deviation that the joint analysis of the bases could result can be validated from the identification of the most prolific authors found in the bases of multidisciplinary nature, as shown in graph 2.

Source : The authors

Chart 2 identifies that among the most productive authors found in the search results in the multidisciplinary databases, the following stand out:

a) with 7 publications: Dyall, K. G .;

b) with 5 publications each: Federman, S. R. and Gessler, A .;

c) with 4 documents each: Bianchi, S., Cami, J., Ketterer, M.E., Kilius, L.R., Lambert, D.L., Rao, S.M., Ritchey, A. M. and Turnshek, D.A.

These authors are responsible for 37 publications (28 articles No. of publications nd 4 reviews) and it is possible to identify a scientific collaboration network between Federman, Lambert, Ritchey and Sheffer. Although the results that identified these authors are due to the use of search expression 1 (archival description, or archiveology, and AtoM), the results obtained showed that the documents dealt with astrophysics, physics, chemistry, and deal with atom research and nuclear research. Thus, it is possible to infer that the acronym AtoM (although referring to the software in this research) was related to the word Atom (atom).

This result shows two important aspects: [1] on a multidisciplinary basis, although it is intended to seek results that demonstrate the theme discussed in other areas, the result is not always relevant; [2] if the cut had been made by area of knowledge, the result would also escape the proposal to understand the theme in other areas of research, such as computing, administration or history, for example; [3] the definition of terms to be searched sometimes does not reflect the meaning that the concept itself brings.

Consequently, in order to define the documentary universe from the multidisciplinary bases, it was decided to apply a refining of search results based on the evaluation of the

keywords indicated in the documents, which resulted in 23 publications. In figure 8 the representativity of the result of this process can be evaluated.

Figure 2. Word Cloud of the terms indicated in the documents retrieved in the multidisciplinary databases from the selection by keywords.

Source: Authors.

Due to the adoption of this perspective, 22 unique documents were obtained (a record was duplicated): Scopus (5), indexed in both Scopus and WoS (5), BDTD (4), NDLTD (3), WoS (1), indexed in both the CAPES Portal of Periodicals and in Scopus (2), Portal of Periodicals of CAPES (1) and indexed in both the Portal of Periodicals of Capes and WoS (1). Among the documents retrieved by this extraction of keywords, it was possible to identify 10 articles, 5 dissertations (3 in UFSM, 1 in IBICT and another in Uporto), 3 event articles, 2 final papers of degree (one in USal and another in UPV, without, however, being able to identify the level) and 1 thesis (ENBA)[5]. It was not possible to distinguish more productive authors and, neither, a network of collaboration between these authors since there is more than one occurrence for each identified author.

However, it was possible to recognize by the analysis of the abstract, in search of references to the discussions about the RiC, that stand out the contributions of Costa and Madio (2017), Llanes-Padron and Moro-Cabero (2017) and Peruginelli et al. (2017), and on the ICA-AtoM (or AtoM), it was possible to identify the contribution of Cerro Santiago

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[5] Among the acronyms cited it is clear: UFSM - Federal University of Santa Maria (Brazil), IBICT - Brazilian Institute of Information in Science and Technology (Brazil), UPorto - University of Porto (Portugal), USal – Universidad de Salamanca (Espanha), UPV – Universitat Politècnica de València (Espanha) e ENBA – Escuela Nacional de Bibliotecnomia y Archivonomia (México).

(2014), Conrado (2014), Costa e Madio (2017), Gago (2017), Hedlund Nakhoda (2016), Karunarathne and Wimalarathne (2014), Moreiro et al. (2011), Santos (2012), Xavier (2014).

According to the search result No. of publications ses in the field of Information Science (BENANCIB, BRAPCI, e-LIS, ISTA, LISA, LISTA), records were also found that were present in the search result obtained from the CAPES Portal of Periodicals, Scopus and WoS. Thus, these records were part of this analysis and not the previous one. Therefore, this analysis counts with the evaluation of 377 documents, among which it was possible to identify the number of documents recovered and their relationship with the bases as follows: LISA (170); LIST (108); ISTA and LISTA (56); ISTA (13); BRAPCI (5); LIST and Portal of Journals of CAPES (4); LISTA and Scopus (4); ISTA, LISTA, Scopus and WoS (2); LISA and Portal of Periodicals of CAPES (2); LISA, LIST and Portal of Periodicals of CAPES (2); BENANCIB (1); BRAPCI and LISA (1); BRAPCI and Portal of Periodicals of CAPES (1); BRAPCI, LISA and Portal of Periodicals of CAPES (1); e-LIS (1); ISTA, LISA, LIST and Portal of Periodicals of CAPES (1); ISTA, LISTA and Scopus (1); ISTA, LIST, Portal of Journals of CAPES and Scopus (1); ISTA, LIST, Portal of Journals of CAPES, Scopus and WoS (1); ISTA, Scopus and WoS (1); LIST, Scopus and WoS (1).

The search in these bases allowed to identify, as shown in graph 3, the most productive authors:

a) with 5 publications: Riva, Pat;

b) with 4 publications: Flores, Daniel; Taniguchi, Shoichi; Žumer, Maja;

c) with 3 publications: Carlyle, Allyson; Doerr, Martin; Eito-Brun, Ricardo; Guerrini, Mauro; Hawkins, Les; Salaba, Athena; Wusteman, Judith; Zhang, Yin.

Graph 3. Most prolific authors on the disciplinary bases in the field of Information Science
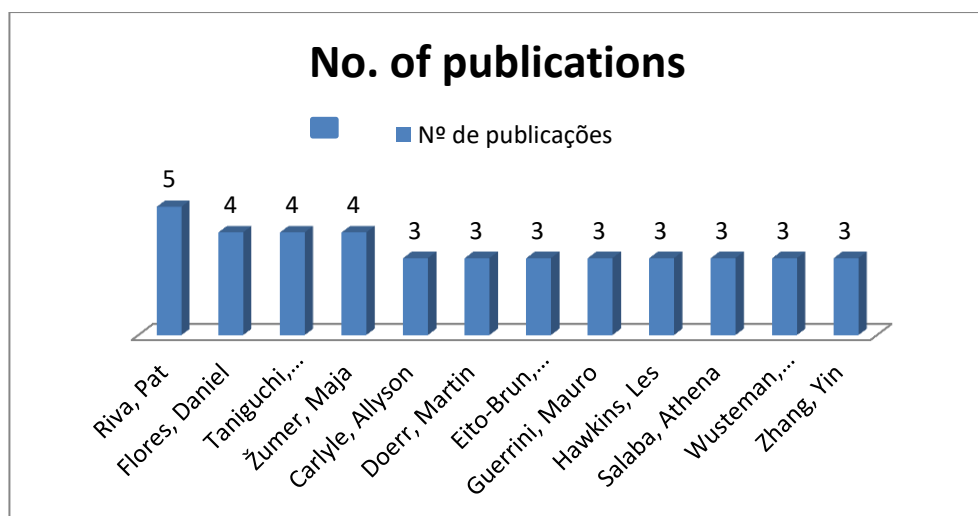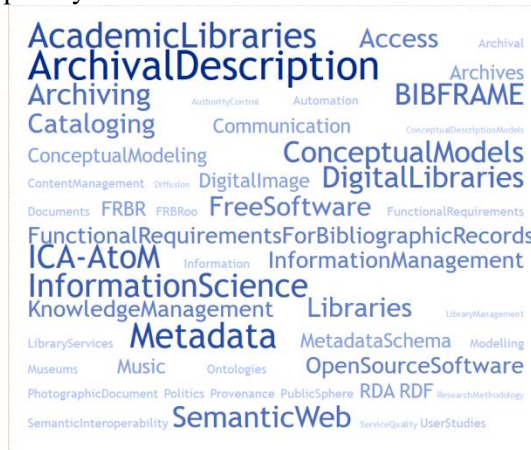

Source: Authors.

These authors are responsible for 41 publications and it is possible to identify scientific collaboration network between Salaba and Zhang in 3 documents, and between Doer, Riva and Zumer, in a paper. These documents were indexed in the following databases: ISTA and LISTA (16), LISTA (11), LISA (7), ISTA (3), BRAPCI (2), BRAPCI and LISA (1), BRAPCI and CAPES Portal of Periodicals (1), LISA and CAPES Portal of Periodicals (1) and ISTA, LISTA and Scopus / (1).

Still, considering the evaluation of the publications of the most productive authors, it is also possible to identify, with Riva, Taniguchi and Zumer, the relationship between archival description, or archiveology, with a conceptual model, and when one wants to understand the relation between description Flores and Hedlund (2014), Hedlund and Flores (2014), and Lima and Flores (2016) are among the publications with the ICA-AtoM software. Although Wusterman appears in this evaluation, his publications refer to Atom, which, unlike before (with possible link to the atom), refers to an XML-based document that describes feeds (such as those in which they occur with the RSS).

This scenario, however, is altered when trying to identify discussions about the conceptual model proposed by the ICA, the RiC, since none of the publications retrieved from the publications of the most productive authors dealt with it, but from the FRBR, as it was possible to evaluate in the summaries of the (1990), Carlyle and Fusco (2007), Carlyle (2006), Doerr, Riva and Žumer (2012), Pisanski and Žumer (2009), Bæuf and Doerr (2007), Bianchini and Guerrini (2015), Buizza and Guerrini Riva and Oliver (2012), Riva (2007), Riva (2016), Salaba and Zhang (2007), Taniguchi (2009, 2017a, 2017b, 2018), Zhang and Salaba (2007a), Riva and Bellemare , 2007b) and Žumer (2007). Although the most productive authors were not present, since authors with more than 3 publications were presented, the actual contributions on the RiC occur with Llanes-Padrón, in publications associated with Moro-Cabero and Pastor-Sanchez.

Once again, the perspective of the application of the archival description with ICA-AtoM in the researches of Eito-Brun (2011), Flores and Hedlund (2014), Flores (2013), Hedlund and Flores (2014) and Lima and Flores (2016). From Figure 9, this perspective can be confirmed, even though the list of keywords was used for the elaboration of Word Cloud.

Figure 3. Word Cloud of the terms indicated in the documents retrieved in the disciplinary databases in the field of Information

Science.Source: Authors.

In order to know which are the journals that most impact the research on the theme of this research, we present the graph 4, in which the following titles are identified: Archival Science; Bulletin of the American Society for Information Science & Technology; Cataloging & Classification Quarterly; Computers in Libraries; Electronic Library; JLIS.it; Journal of Documentation; Journal of the American Society for Information Science and Technology; Library Hi Tech; Library Hi Tech News; Online Information Review; Program: Electronic Library & Information Systems; and The Electronic Library.

Graph 4. Periodicals that stand out on the research theme
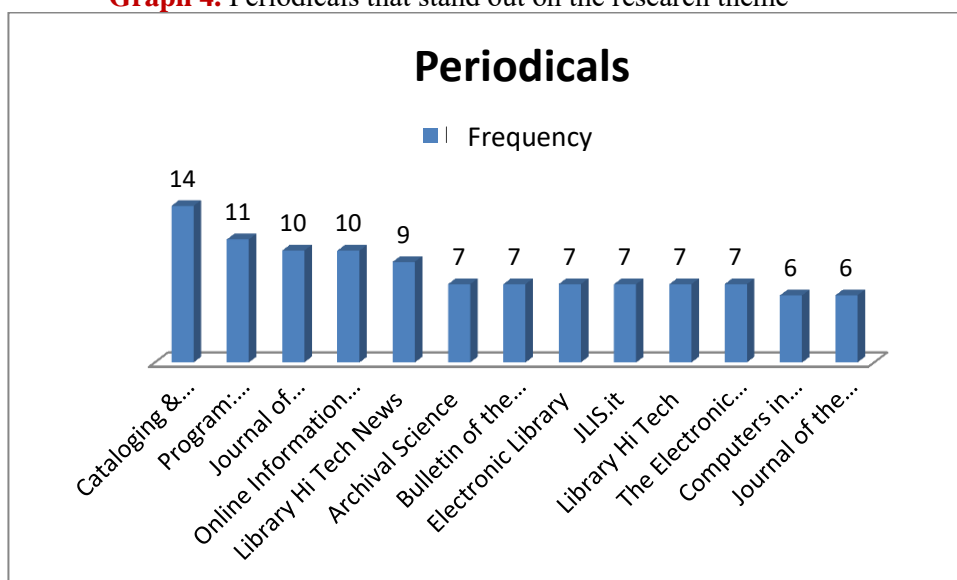
Source: Authors

4 FINAL CONSIDERATIONS

In this research, we systematically sought to understand the scientific scenario that involves the archival description, specifically evaluating objects such as Records in Contextx (RiC), international conceptual model of archival description by the International Council on Archives (ICA), and AtoM, formerly known as ICA-AtoM, application software for archival description whose initial development was also given by ICA.

In order to understand the relationship in the domain of Information Science, but also looking for the identification of researches developed in related and multidisciplinary areas, it was decided to adopt national and international databases: BDTD, BENANCIB, BRAPCI, e-LIS, ISTA, LISA, LIST, NDLTD, Portal of Journals of CAPES, Scopus and WoS.

The results indicate that, despite the broad aspect of the research, it was possible to identify documents that meet the research proposal, which gives indications that the definition of the research sources, search arguments and methodological options adopted validated the methodology. In this way, we present the documents that answer the proposed question: Cerro Santiago (2014), Conrado (2014), Costa and Madio (2017), Eito-Brun (2011), Flores and Hedlund (2014), Flores (2016), Llanes-Padrón and Pastor-Sanchez (2017), Lima and Flores (2016), Llanes-Padrón and Pastor-Sanchez (2017), Gueda (2017), Hedlund (2014), Izadi and Nakhoda (2016), Karunarathne and Wimalarathne Llanes-Padron and Moro-Cabero (2017), Lima and Flores (2016), Moreiro et al. (2011), Peruginelli et al. (2018), Santos (2012) and Xavier (2014).

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