



Studies on the organization and representation of information in a museological context

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ABSTRACT

Recording information today has been one of the biggest challenges, as the mass of information increases over time. To use these information records it is necessary that they are recoverable. The need to organize information for later retrieval has been the object of studies, which make possible dialogues between fields of knowledge that have information as an instrument, namely, Museology and Information Science; The present work presents a bibliographic survey about studies of Information Organization (IO) and Information Representation (IR) in a museological context, with the objective of deepening the understanding of this theme, both IO and IR in these spaces; To do so, Bardin's Content Analysis was adopted as a methodology, it was developed in the search of a set of Annals of events and Databases that constitute the largest indexers of scientific content about the theme of this work; Dealing with a possible dialogue of the Organization and Representation of Information in Museums, shows the concern in exploring a subject that is not very expressive in the databases of events and research, if related to other more recurrent themes. The dialogue between OI and RI for access to information in museological institutions facilitates access to information both for the public that accesses these places and for professionals who have direct contact with museological documentation. And yet, it corroborates the development of practices of professionals working in the field of Museology, Information Science and the like, through the dissemination of information.

Keywords: information science; museology; content analysis; Bardin.

INTRODUCTION

Information is one of the greatest inputs in society today, as the amount of information generated every day is ever increasing. However, for information to be used, it must be recoverable, therefore, recorded/fixed on a material or digital medium, organized and made available. On the other hand, unrecorded information may have objections to its socialization (accessibility) since its access is limited to spatial and temporal variables. In this context, Smith (2012, p. 85)¹ understands that, “[...] informação registrada equivale ao conceito de documento, embora o mesmo tenha sido investido de valores diferenciados ao longo do tempo”.

With respect to recorded information, for Bates (1987, p. 6)², Information Science studies recorded information that “[...] seres humanos, produzem, procuram, utilizam, recuperam e utilizam”, o universo da Ciência da Informação é aquele referente ao “mundo da informação registrada, produzida pela ação humana”. According to the author, this recorded information can be found in “[...] livros, artigos, banco de dados, arquivos de dados, etc [...]”³.

Recording information on a physical support (document) represents materializing such information. One example of said materialization is developing museum collections, which are determined by the processes of entry of objects into these collections, such as the documentation of a piece, from the registration process to an exhibition. When referring to museums which are research centers, in general, developing these collections is directly linked to the institution’s research and area(s) of interest. However, regardless of collection development policies and/or processing strategies, contemporary information units, faced with socioeconomic, political and cultural circumstances, demand organization and access to information, and these as the main axes. In this sense, Macedo and Ortega (2019) state that access to information requires the organization of specific environments that enable the qualified use of information.

The search to ensure public access, together with the need to preserve museum heritage, brings reflection on the organization and representation of the multiple information of the museological object. For Lima and Alvares (2012), Organization and Representation of Information is the emphasis given to organization processes using representations of information and knowledge contained in the museological object, thus, these institutions have specific ways of representing information.

From the perspective of the organization of information, it is necessary to organize information and represent it so that it can later be retrieved (Pinho; Nascimento; Melo, 2015). Therefore, it is essential to look at the instruments that represent the information. For Moraes and Arcello (2000), representations are instruments for arranging and hierarchizing the social

1 Translation: “[...] recorded information is equivalent to the concept of document, although it has been given different values over time” (Smith, 2012, p. 85, editorial translation).

2 Translation: “[...] human beings, produce, seek, use, recover and use”, the universe of Information Science is that referring to the “world of recorded information, produced by human action”. According to the author, this recorded information can be found in “books, articles, databases, data files, etc” (Bates, 1987, p. 6, editorial translation).

3 Translation: “[...] books, articles, databases, data files, etc [...]” (Bates, 1987, p. 6, editorial translation).

structure, and they identify the group or environment that produced or consumes them. Thus, it is possible to state that representing is creating structures to retrieve information in an efficient manner.

The representation of information is part of an essential process for its access and dissemination. In museums, the representation of information can be found in different sectors, such as exhibitions and museum documentation, which address objects, preservation instruments and access to information. For institutions to fulfill their preservation role, instruments play an indispensable part in the representation process.

In this context, a bibliographical survey on studies of the Organization of Information (OI) and Representation of Information (RI) in a museological context is presented, with the aim of deepening the understanding of this subject, both OI and RI in these spaces. How is the relationship between the organization of knowledge and information and the Representation of information being discussed in the museological context?

Information science: possible dialogues

The outlining of Information Science (IS) has been permeated by certain characteristics and concerns such as the circulation of documents and their dissemination in a more practical manner. There is concern for the relationship between man and knowledge, determined between those who provide and those who seek information (centered on human beings and society as a whole) (Shera, 1977). The storage and retrieval of information, or facts, no matter how well-done and how precise these mechanisms are, have no value if they are not used for the good of humanity, and it is this use that man dares not relinquish (Shera, 1977, p. 11).

Following the same logical reasoning, IS is a social science, based on doing things for society. According to Wersig and Neveling (1975), the social responsibility of Information Science is to ensure that people who need knowledge for their work/activity can receive it, regardless of whether they sought it or not. This is particularly the importance of IS, which plays a relevant role in investigating the processing of data and its conversion into useful information for those who seek/need it.

For Shera (1971), all communication focuses on content and a certain context. For the author, one fails to understand the informational context when they do not seek to understand how knowledge is communicated and its impact on society. Based on this understanding, organizing and representing is necessary for information to be made available to those who need it.

In IS, the representation of information and knowledge is directly linked to the ways of re-signifying it. From this perspective, dialogues are essential. One of them has been with the Organization and Representation of Knowledge, which addresses the organization and representation of information. In this sense, Burke (2003) distinguishes the two terms information and knowledge, attributing the following characteristics to information: what is relatively “raw”, specific and practical. The author denotes knowledge

as that which represents what has been “cooked”, processed or systematized by thought. Another concept is that of Capurro and Hjørland (2003) who state that the concept of information is directly related to what is desired to be answered, that is, to the problem or question that the information must satisfy.

This way, information depends on the context and limitations of reality. Thus, Bräscher and Café (2008) conclude that information is associated with views on knowledge while it influences and modifies them. In this sense, information is seen as a possibility of transforming knowledge structures and, therefore, knowledge can be seen as something that is provisional and in permanent review.

The Organization of Information also includes the organization of a set of informational objects to systematically arrange them into collections, in this case, we have the organization of information in libraries, museums, archives, both traditional and electronic. According to Bräscher and Café (2008). Therefore, two processes consequently produce two distinct types of representation: the representation of information, understood as the set of attributes that represents a given informational object and which is obtained by the processes of physical and content description, and the representation of knowledge, which constitutes a conceptual structure that represents models of the world, which, according to Le Moigne (*apud* Campos, 2004, p. 23), allow us to describe and provide explanations about the phenomena we observe.

In the definition of Smiraglia (2001), OK is the construction of tools for the storage and retrieval of documentary entities; he also highlights that the object of study is the document, in the case of museums, the museological object. OI is a process of arranging/classifying collections carried out by means of the description of the subject of their informational objects.

In the museological context, it is observed that the greatest uniformity with what is understood as RI in IS is the development of museological documentation (Lemos, 2018). This is because it is by means of this technical procedure of museology that information about objects is researched and described. This process can be a way to represent the most similar information both in IS, and in Library and Archival Science, provided that the specificities of each are considered.

The relationship between RI and museological documentation is characterized as one of the fundamental procedures in the processing of information in museums, being both extrinsic and intrinsic. According to Mensch (1992), the representation of objects can be configured in three dimensions: physical properties of the object (material, technical and morphological); function and meaning (interpretation); and History (genesis, use, deterioration and restoration factors). For Padilha (2014), this documentation essentially has the aim of organizing and enabling the recovery of the information contained in its collection. Once these actions are performed, the objects and/or museum collections become a source of information (for curation, scientific research, cultural and educational actions, various publications, among others) that can produce new knowledge. According to Ferrez (1994),

museological documentation is an ordered set of information on museum objects, where they are represented by means of writing and images, also being an information retrieval system for research and information sources.

In this context, the Organization of Information is established through processes that focus on the identification, collection and systematization of information about documents, from this process that constitutes the representation of information. In this context, Rowley (2002) highlights that information is only valuable to the extent that it is structured. If the information is not properly organized, it may not reach the user, becoming useless.

Two demands gain emphasis in today's information society, the organization and retrieval of recorded information. However, an issue persists, the loss of information/documents resulting especially from the lack of organization (physical and intellectual) of the information. In this regard, Martins (1992, p. 25)⁴ asserts that “[...] quando os documentos existem e são localizados, carecem de organização que facilite o acesso [...]”, thus, it is understood that, normally, when something is organized by extension, its access is facilitated.

In this sense, for Bräscher and Café (2008) RI is a product of OI, being a process that seeks to describe informational elements that represent a document. To promote discussions between Information Science and Museology, Araújo (2014) considers the Representation of Information to be a link between these two areas. In the same context, the author considers that, both in the general context of Information Science and in the specific context of museums, it is through RI that the possibility of retrieving and accessing information is conceived, contributing to the communication of the object/document with the user.

For this object/document to occupy a significant role in the museum space, it undergoes several processes to become part of a collection. For Ceravolo and Tálamo (2000), over the years, documentation assumes a significant status within museums, both as support for administrative activities and as a support element for the scientific research that is conducted in them.

In this context, organization and recovery involve: the existence of organization policies, categorization, classification, indexing procedures, representation instruments, etc., all permeated by socioeconomic, political and cultural aspects. Souza (2017) confirms this idea, highlighting that the commitment to describing a record of knowledge relating it to the social context, and internal policies of the information unit, in which its message will circulate is a recurring concern among professionals who organize the information.

Specifically on the organization of information, in the view of Bräscher and Café (2008), this process involves physical and content description of informational objects. In this descriptive process, there is a product, the representation of information (RI), that is understood as a set of descriptive elements that represent the attributes of a specific informational object. This product becomes fundamental for the recovery and access to information.

4 Translation: “[...] when documents exist and are located, they lack organization that facilitates access [...]” (Martins, 1992, p. 25, editorial translation).

METHODS

In research, the method is materialized as a set of different stages or steps that must be followed for it to be implemented (Cervo; Bervian; Silva, 2007). The research was developed based on the choice of Annals of events and Databases that constitute the largest indexers of scientific content on the subject of this work, which are: Annals of the International Society for Knowledge Organization - ISKO/Brazil, and the Annals of the National Meeting of Research in Information Science – ENANCIB. In addition, searches were conducted on the CAPES Periodicals Portal, in the following databases: Lista, Scielo Brasil and Web of Science, the Brazilian Digital Library of Theses and Dissertations – BDTD; and the Reference Database of Journal Articles in Information Science – BRAPCI. These scientific communication channels were chosen because they are sources of greater scientific production at the national level, and with international bases that could reveal productivity both within the scope of IS, in an attempt to encompass the main publications regarding the Organization of Information in the museological context.

Thus, this work adopted Bardin's (2003) Content Analysis as its methods, since its procedures allow an analysis be made based on inferences drawn from document contents - based on an interpretation controlled by means of variables or indicators, which provide greater freedom for the analyst, without losing the objectivity of the research, and because it is an analysis based on definitions designed by authors/researchers, that is, textually-recorded arguments.

The stages of the technique, according to Bardin (2006), consist of processing information based on a specific roadmap. Thus, divided into three stages: 1) pre-analysis, 2) exploration of the material and 3) processing of results (inference and interpretation).

Therefore, in 1) Pre-analysis, the first stage consists of i) skim reading, ii) choice of documents, iii) Formulation of hypotheses and objective iv) preparation of the material. It was based on a complete survey of the databases and complete collections of the aforementioned annals, using terms "Knowledge organization" and "Information Representation" and "Museum Collections" or "Museum" (and variations of the term in Portuguese and Spanish). The communications that identified dialogues on the Representation of Information in museum collections were read, selecting communications using keywords, titles and summary, as the works explore characteristics, concepts, and instruments regarding the Organization and Representation of information in museums.

When selecting documents, that is, delimiting the corpus, four basic rules are followed according to Bardin (2003): exhaustiveness - to the extent that all definitions found, when collecting information, were considered useful materials for analysis, selecting the content regarding ORI speeches in a museological context; representativeness - ensured by the choice of databases, as the works published in these channels are representative with regard to scientific production in Information Science; homogeneity - because the definitions

analyzed are related to the same field of study, they are homogeneous both in their textual structure and in their subject; and relevance of the material - the sources are the genuine ideas presented by the authors/researchers in their definitions.

The stage (2) of exploration of the material, according to Bardin (2003), consists of “coding, discounting or enumeration operations, depending on previously formulated rules”. The search terms were defined; later with the databases already determined, we had quantitative results for each of them according to the previously defined strategies: Annals of ISKO – 9 papers, Annals of ENANCIB – 10 papers, BDTD – 7 papers, BRAPCI – 3 papers, SCIELO BR– 3 papers, WoS – 8 papers, Lista – 4 papers.

According to the above, a total of 44 publications were retrieved in the seven media initially proposed, such as annals and database. Thus, after searching this channel, the retrieved publications were exported to *Mendeley Desktop*, the references underwent a duplication process and the duplicates were excluded, as were the publications without titles. After this exclusion procedure, the total number of publications for analysis was 41.

Stage (3) covers session 4 – discussion of results, as it is defined as the processing of the results obtained; their interpretation connects the results obtained with the theoretical scope, and allows one to draw conclusions that lead to the advancement of the research (Ramos; Salvi, 2009). Based on these observations, it becomes possible to build concepts referenced by the consensus of the research community on the subject.

RESULT ANALYSIS AND DISCUSSION

The purpose of this section is to promote further approximation between studies on the Organization and Representation of Information in Museums. It is important to emphasize that this work does not intend to seek standards for concepts in the museological context regarding the organization of information, it does not seek unanimity, however, it highlights conceptions regarding the topic.

The scope for constituting the corpus of analysis was established by the texts retrieved from the databases previously mentioned. Only those texts that at some point refer to aspects related to discussions on the topic of this work were definitively included in the analysis presented below, which totaled 41 works.

For the purpose of this work, the first proposal was to observe how the authors portray OI and RI in dialogues with museum collections. The analyses revealed that there were 41 works in total, as shown in **TABLE 1**.

TABLE 1 – Authors and retrieved Annals and databases

Database and Annals	Authors of retrieved works
BRAPCI	LEMOS, KARPINSKI (2018); BRITTO, LARA (2017); MAIMONE (2018)
BDTD	SILVA (2011); SAMPAIO (2011); BARBANTI (2015); HIGASHI (2018); MAIMONE (2013); PADILHA (2018); YASSUDA (2009)
BENANCIB	PIQUET, COUTO, PIRES (2015); MORAES (2015); PADILHA, CAFÉ (2016); BALLESTÉ, ALMEIDA (2014); MURGUIA, GRIGOLETO (2013) ROCHA, MOURA (2014); PADILHA, CAFÉ, (2017)
ISKO BR	MARTINS, AZEVEDO NETTO (2012); MAIMONE, TÁLAMO (2013); SOUZA, (2015); NININ, SIMIONATO (2017); SILVA (2017); LIMA, COSTA, GUIMARÃES (2017); LIMA, VITORIANO, BARBANTI (2017) GUIMARÃES, SANTOS, SALES, MATOS (2015) SALES (2015)
LISTA	MARTY (2007) DUARTE, BELARDE-LEWIS (2015) RIBES, BOWKER (2009); SAMPAIO (2012)
WoS	MARTY (2007) BASSIER, VINCKE, HERNANDEZ (2018) CHEN, HUANG, BART JR (2006) MAIMONE, TALAMO, (2009); ALWI (2012) BOGOMAZOVA, MALEVANOV (2000) KAUR (2018) KOZUN, YALOVITSYNA, VOLOKHOVA (2018)
SCIELO BR	TEIXEIRA (2014); SANTOS NETTO, <i>et. al.</i> (2013); MAIMONE (2017)

Source: Prepared by the author (2020).

To classify the data collected, Bardin (2003) suggests the categorization process, which consists of grouping elements that converge in their characteristics into classes. The categories defined were: 1) Those in which OI and RI interact; 2) Those in which Museums, or museum collections interact; 3) Interactions between OI and RI in a museological context. The first category was defined with works that focus on processes in which OI and IR interact, applying titles, abstracts and keywords to the selection of this research. The second category was defined for the publications with terms that could highlight museums, or even museum collection interactions. Finally, the last group was defined based on work in which there were possible interactions between OI and RI in a museological context.

The table below shows the breakdown according to the categories previously presented.

TABLE 2 – Number of works with specified category.

Category	Quantity
OI AND RI INTERACT	16
MUSEUMS, COLLECTIONS AND MUSEOLOGY INTERACT	14
INTERACTIONS BETWEEN OI AND RI IN MUSEOLOGICAL CONTEXTS	11

Source: Prepared by the author (2020).

Since this is the object of this paper, the works that discuss this topic are shown in the table below following their title and corresponding authors.

TABLE 3 – Works that discuss OI and IR in the museological context

Title	Authors
Coleção Paranaguá: documentação museológica como acesso ao conhecimento	ROCHA, L. M. G. M.; MOURA, P. (2017)
Curadoria e ação interdisciplinar em museus: a dimensão comunicacional e informacional de exposições	MORAES, J. N. L. (2011)
Museu Bauru e informação: trajetória histórica e musealização sob o foco da documentação museológica.	LIMA, D. F. C.; NOVAES, R. S. (2013)
O documento e seu valor patrimonial. Os processos de tombamento do Museu Histórico e Pedagógico “Prudente de Moraes”	GRIGOLETO, M. C.; MURGUIA, E. I. (2013)
CI e Museologia: Análise das comunicações orais do ENANCIB sobre RI	LEMOS, L. H.; KARPINSKI, C. (2018)
A representação do objeto museológico na época de sua reprodutibilidade digital.	PADILHA, R. C. (2018)
Representação da informação e preservação da memória: Mapeamento conceitual do patrimônio imaterial brasileiro	MARTINS, G. K.; AZEVEDO NETTO, C. X. (2012)
Organização da informação em acervo de museu: a fotografia histórica	PADILHA, R. C.; CAFÉ, L. M. A. (2017)
Reflexões sobre museologia: documentação em museus ou museológicas?	CARVALHO, L. C.; SCHEINER, T. (2014)
Vozes do silêncio: memória, representações e identidades no Museu do Ceará.	SAMPAIO, D. A. (2012)

Source: Prepared by the author (2020)

After identifying the texts that focus more specifically on the interaction of the Organization and the representation of information in museums, it was possible to infer which subtopics are being most discussed in these texts, given that some papers manage to explore two topics or more. As shown in the table below:

TABLE 4 – Most evident subtopics in the papers.

Subtopic	Quantity
Organization of Information	3
Representation of Information	2
Museological Documentation	3
Cultural Heritage	2
Exhibitions	1

Source: Prepared by the author (2020)

According to the categories defined above, it was observed that there are papers that establish interactions between OI and IR in a museological context. Throughout this research, it was also possible to identify the possibility of further exploring the topic, because even if there are papers addressing this topic, according to Lemos and Karpinski (2018), it is essential to conduct future research to understand how RI is present in museums, and how IS helps Museology in OI. In other words, interdisciplinary dialogue is fundamental; when cooperating with each other with a horizontal dialogue, there is improvement in common aspects. However, some papers, even if they address the topic, do not explore it as much, or even do not name the representation of information as an integral part of information processing, they only mention it in other contexts.

It is observed that the works analyzed, such as those that show interaction between OI and RI in museums, address the observations made regarding RI in an elementary manner, or treat the RI process as if it were the museological documentation itself, which is how it is mainly treated in museums.

Works related to exhibitions deal specifically with the retrieval of information, and the processes developed to present this information, that is, communication with the public, considering what the object will communicate, and how the public will receive it. With regard to heritage, the line of research considers, according to Higashi (2018), cultural heritage as various elements categorized into material and immaterial, that is, everything that is related to people's way of doing things, techniques and skills, and the products of human creation, such as artifacts, objects and buildings. One of the purposes of heritage preservation is to keep memory alive, where the representation of information becomes fundamental to ensure access.

Works having museological documentation as their main topic are mainly focused on its importance for museum work, and for the development of any activity within the museum. In this context, it also highlights that one of the main objectives of museum documentation is the organization and representation of knowledge and information from the museum collection in order to process and facilitate their recovery by the public, specialized researchers and museum employees (Padilha, 2018). According to data from IBRAM (2011), only 21.3% of

museums had a record of cultural heritage. This premise reveals that more than 75% of museums do not know the exact number of objects they hold in their institutions; this situation would be different if museological documentation had been established in museums.

Dealing with a possible dialogue on the Organization and Representation of Information in Museums, shows concern for exploring a topic that is not very significant in event annals and databases, if related to other more recurring themes.

FINAL CONSIDERATIONS

According to the proposal of this work, the publications highlighted interactions between OI and RI focused on museum collections. Seven were analyzed, including event annals and databases: The annals of ENANCIB and ISKO-BR, LISTA, WoS, Scielo BR, BRAPCI, and BDTD were selected because they include a considerable part of the research conducted in this area and are relevant to the topic of this paper. Based on the titles, abstracts and keywords, it was possible to identify which publications addressed OI in museums. As a result, 41 papers were found to consider or mention forms of RI, part of the museological process.

Of the 41 works, 11 discuss OI and RI in the museological context. Although this can be considered a relevant number, compared to the search result, the expansion of research in IS and Museology can add experiences to understand and improve RI instruments in museums, mainly highlighting the ways in which information is organized in museums.

It was possible to observe discussions that suggest an analysis of the construction and relationship of the concepts of memory, the representation of information and cultural identity, and the interdisciplinarity between Museology and Information Science, based on their epistemological assumptions and paradigms.

The dialogue between OI and RI for access to information in museums facilitates both access to information for the public who access these places, and for professionals who have direct contact with museum documentation. And as a result, it corroborates the development of this activity, which is one of the ways in which information is disseminated. So that more and more documentary collections are organized, identified/represented, disseminated and accessed.

It should be noted that access to information is one of the ways of democratizing knowledge, as it makes research possible, showing the potential of museums as spaces that promote the development and transformation of heritage into cultural heritage, providing more concise and accurate information, saving time and communicating appropriately to their public.

It is also important to highlight that the exploration of RI as part of the process of museological documentation processing is still an elementary discussion in the publications researched that address museological documentation, therefore, it highlights the possibility of more effective exploration of RI instruments in museums. There is a need to further explore the

fields of Museology and IS in order to encourage research that highlights this topic, resulting in improvements both for museological processes and for researcher access to content. Thus, it contributes to the development of both fields, and mainly of social and cultural aspects.

The results of this research show that the dialogue between Museology and Information Science is contributory to both, a beneficial scenario for the processing of information, and thus facilitates access and communication in these fields, in order to enable greater production of knowledge in different contexts.

REFERENCES

ARAÚJO, C. A. Fundamentos da Ciência da Informação: correntes teóricas e o conceito de informação. **Perspectivas em Gestão e Conhecimento**, João Pessoa, v. 4, n. 1, p. 57-79, jan./jun. 2014.

BARDIN, L. **Análise de conteúdo**. Lisboa: Edições 70, 2003.

BARDIN, L. **Análise de conteúdo**. Lisboa: Edições 70, 2006. 225 p.

BATES, M. Information: the last variable. *In*: Proceedings of the 50th ASIS Annual Meeting, 50., 1987, Boston. Massachusetts. **Anais** [...]. Boston. Massachusetts: American Society for Information Science, 1987, p. 6-10.

BRÄSCHER, M.; CAFÉ, L. Organização da informação ou organização do conhecimento? *In*: ENCONTRO NACIONAL DE PESQUISA EM CIÊNCIA DA INFORMAÇÃO, 9., 2008, São Paulo. **Anais** [...]. São Paulo: ANCIB, 2008. Disponível em: <http://enancib.ibict.br/index.php/enancib/ixenancib/paper/viewFile/3016/2142>. Acesso em: 20 jan. 2020.

BURKE, P. **Uma história social do conhecimento**: de Gutemberg a Diderot. Rio de Janeiro: Zahar, 2003. 241 p.

CAMPOS, M. L. A. Modelização de domínios de conhecimento: uma investigação de princípios fundamentais. **Ciência da Informação**, Brasília, v. 33, n. 1, p. 22-32, jan./abr. 2004.

CAPURRO, R.; HJORLAND, B. The concept of information. **Annual Review of Information Science & Technology**, v. 37, n. 1, p. 343-411, 2003.

CERAVOLO, S. M.; TÁLAMO, M. F. G. M. Tratamento e organização de informações documentárias em museus. **Revista do Museu de Arqueologia e Etnologia**, [s. l.], n. 10, p. 241-253, 2000.

CERVO, A. L.; BERVIAN, P. A.; SILVA, R. **Metodologia científica**. 6. ed. São Paulo: Pearson Universidades, 2006. 162 p.

FERREZ, H. D.; Documentação museológica: teoria para uma boa prática. *In*: **Cadernos de Ensaio**. Estudos de Museologia. n. 2, Rio de Janeiro: Minc/IPHAN, p. 65-74, 1994.

HIGASHI, A. K. **Acervo de fotografos como patrimônio cultural**: organização de documentos de Luiz Germano Gieseler no Museu Antropológico Diretor Pestana. 2018. Dissertação – Programa de Pós-graduação em patrimônio cultural. Universidade Federal de Santa Maria. Santa Maria, 2018.

INSTITUTO BRASILEIRO DE MUSEUS. **Museus em números**. Brasília: Instituto Brasileiro de Museus, 2011. p. 80

LEMOS, L. H.; KARPINSKI, C. CI e museologia: análise das comunicações orais do ENANCIB sobre RI *In: ENCONTRO NACIONAL DE PESQUISA EM CIÊNCIA DA INFORMAÇÃO*, 19., 2018, Paraná. **Anais** [...]. Londrina: ENANCIB, 2018. p. 5583-5597. Disponível em: <http://hdl.handle.net/20.500.11959/brapci/102440>. Acesso em: 20 out. 2020.

LEMOS, L. H.; **A representação da Informação em Ecomuseus**. Orientador: Cezar Karpinski. 2018. 99 f. Dissertação (Mestrado em Ciência da Informação) – Departamento de Ciência da Informação, Universidade Federal de Santa Catarina, Florianópolis, 2018.

LIMA, J. L. O.; ALVARES, L. Organização e representação da informação e do conhecimento. *In: ALVARES, L. (org.). Organização da informação e do conhecimento: conceitos, subsídios interdisciplinares e aplicações*. São Paulo: B4 Editores, 2012. p. 21-34.

MACEDO, S. M. S.; ORTEGA, C. D. Unidades de informação: termos e características para uma diversidade de ambientes de informação. **Em Questão**, Porto Alegre, v. 25, n. 2, p. 326-347, 2019. DOI: 10.19132/1808-5245252.326-347.

MARTINS, R. A. O sistema de arquivos da universidade e a memória científica. *In: Anais do I Seminário Nacional de Arquivos Universitários*, 1., 1992, São Paulo. **Anais** [...] Campinas: UNICAMP, 1992. p. 27-48.

MENSCH, P. Museology and the object as data carrier. *In: MENSCH, P. Object, museum, Museology, an eternal triangle*. Leiden: Reinwardt Academy. Reinwardt Cahiers, 1992.

MORAES, A. F. de; ARCELLO, E. N. O conhecimento e sua representação. **Informação & Sociedade: estudos**, [s. l.], v. 10, n. 2, 2000. Disponível em: <https://periodicos.ufpb.br/ojs/index.php/ies/article/view/328>. Acesso em: 14 jan. 2021

PADILHA, R. C. **A representação do objeto museológico na época de sua reprodutibilidade digital**. Orientador: Lígia Maria Arruda Café. 2018. Tese (Doutorado em Ciência da Informação) – Universidade Federal de Santa Catarina, Centro de Ciências da Educação, Programa de Pós-Graduação em Ciência da Informação, Florianópolis, 2018. 256 p.

PADILHA, R. C.; CAFÉ, L.; SILVA, E. L. O papel das instituições museológicas na sociedade da informação/ conhecimento. **Perspectivas em Ciência da Informação**, v. 19, n. 2, p. 68-82, abr./jun. 2014

PINHO, F. A.; NASCIMENTO, B. L. C.; MELO, W. L. As dimensões ôntica, epistêmica e documental na representação da informação e do conhecimento. **Revista ACB**, [s. l.], v. 20, n. 1, p. 112–123, 2015. Disponível em: <https://revista.acbsc.org.br/racb/article/view/995>. Acesso em: 15 jan. 2021.

RAMOS, R. C. S. S.; SALVI, R. F. Análise de conteúdo e análise do discurso em educação matemática – um olhar sobre a produção em periódicos qualis A1 e A2. *In: SEMINÁRIO INTERNACIONAL DE PESQUISA EM EDUCAÇÃO*, 4., 2009, **Anais** [...] Brasília, Sociedade Brasileira de Educação Matemática, 2009, p. 1-20.

ROWLEY, J. **A biblioteca eletrônica**. 2. ed. Brasília: Briquet de Lemos, 2002. 399 p. ISBN: 85-85637-20-X.

ROWLEY, J. **A biblioteca eletrônica**. São Paulo: Briquet de Lemos, 2002.

SOUZA, E. G. As teorias documentárias e a Organização da Informação: a centralidade das categorias obra e usuário. *In: PINHO, F. A.; GUIMARÃES, J. A. C. (org.). Memória, tecnologia e cultura na organização do conhecimento*. Recife: EdUFPE, 2017. p. 26-33.

SHERA, J. Epistemologia social, semântica geral e biblioteconomia. **Ciência da Informação**, [s. l.], v. 6, n. 1, p. 9-12, 1977.

SHERA, J. H. The sociological relationships of information science. **Journal of the American Society for Information Science**, [s. l.], v. 22, n. 2, p. 76-80, mar. 1971.

SMIRAGLIA, R. P. Musical Works as information retrieval entities: epistemological perspectives. **Proceedings of the Second International Conference on Music Information Retrieval**. Indiana: Bloomington, 2001.

SMIT, J. W. A informação na Ciência da Informação. **In CID: revista de Ciência da Informação e Documentação**, v. 3, n. 2, p. 84-101, 2012.

WERSIG, G.; NEVELING, U. The phenomena of interest to information science. **The information scientist**, v. 9, n. 4, p. 127-140, dec. 1975.