Research Article

RDBCI
Revista Digital de Biblioteconomia e Ciência da Informação
Digital Journal of Library and Information Science

Book's materiality: mapping and thematic visualization in the information science literature

Ana Karolina Alves Amorim[1] iD   Rodrigo Rabello [2] iD

ABSTRACT

Introduction: The book is a symbolic object or a "semiophore", which denotes its condition of being "beyond information", involving, in addition, materiality and institutionality. Objective: To map authors, works and themes related or tangent to the subject "book's materiality" in the scope of information science. Methodology: A mapping of the thematic coverage was carried out in national and international databases, then, the texts identified were analyzed and visualized using *Voyant Tools* tool. Results: 100 documents that covered the period between 1996 and 2020 were analyzed, with the highest occurrence of publication of book's materiality thematic in the years of 2016, 2017 and 2018. In terms of terminology, expressions that lead to the understanding of the book as a documentary and symbolic support that contains information, stand out, and can compose collections in institutions worried with social memory, as is the case of libraries. The journals that most publish articles on the subject were *Encontros Bibli* and *Journal of Documentation*, and the databases that index the most journals that address the topic were *BRAPCI* and Library and Information Science Abstracts. Conclusion: The book's materiality theme establishes a bridge between the breadth of the "materiality" concept and a relationship between book and document. The book – when studied based on the multidimensionality of materiality, whether expressed in analog or digital environment – constitutes itself as a symbolic object in addition to being conceived as a mere source of information.

KEYWORDS

Materiality. Book. Document. Information Science. Digital humanities. Voyant tools.

| 1

Author's correspondence

[1] Universidade de Brasília
Brasília, DF – Brazil
e-mail: anakarolinabsb2@gmail.com

[2] Universidade de Brasília
Brasília, DF – Brazil
e-mail: rdgrabello@gmail.com

Materialidade do livro: mapeamento e visualização temática na literatura em Ciência da Informação

RESUMO

Introdução: O livro é um objeto simbólico ou um "semióforo", o que denota sua condição de estar "para além da informação", envolvendo, ademais, materialidade e institucionalidade. Objetivo: Mapear autores, obras e temas relativos ou tangentes ao assunto "materialidade do livro" no âmbito da Ciência da Informação. Metodologia: Realizou-se mapeamento da cobertura temática em bases de dados nacionais e internacionais; em seguida, procedeu-se a análise e a visualização dos textos identificados mediante a ferramenta *Voyant Tools*. Resultados: Foram analisados 100 documentos que cobriram o período entre 1996 e 2020, constatando maior ocorrência de publicações da temática materialidade do livro nos anos 2016, 2017 e 2018. No âmbito terminológico, destacaram-se expressões que levam à compreensão do livro como um suporte documental e simbólico que contém informação, compondo coleções em instituições preocupadas com a memória social,

como é o caso das bibliotecas. Os periódicos que mais publicaram artigos sobre o tema foram *Encontros Bibli* e *Journal of Documentation*, e as bases de dados que mais indexaram periódicos que abordaram a temática foram a BRAPCI e a *Library and Information Science Abstracts*. Conclusão: O tema materialidade do livro estabelece uma ponte entre a amplitude do conceito "materialidade" e a relação entre livro e documento. O livro – quando estudado tendo como fundamento a multidimensionalidade da materialidade, seja expressa em meio analógico ou digital – se constitui como um objeto simbólico para além de ser concebido como uma mera fonte de informação.

| 2

JITA: EB. Printing, electronic publishing, broadcasting.

turnitin

Article submitted to the similarity system

Responsible editors
Gildenir Carolino Santos
Daniele Thiago Ferreira

1 INTRODUCTION

The present research proposes to map authors, works and themes related or tangent to the subject "materiality of the book", which is studied under the spectrum of Information Science.

The book, in the scope of material culture, besides being an information support, can be understood as an object with personal and cultural imbrications (MURGUIA, 2009), whose values invest meaning. Because of these characteristics, the book can be conceived as a "semiophor" (POMIAN, 1998).

This symbolic object can be investigated as an expression of the social value of the document from modes of formal or less formal institutionality, in epistemic, professional and/or everyday life contexts, considering, for example, the evidential value and/or the validation of information in specific practices (RABELLO, 2019).

The book therefore undergoes a process of institutionalization that can culminate in the formation of collections, creating evocative and remembrance spaces. Thus, the object carries with it something that is beyond information, through its symbolic value expressed in the intentionality attributed to the object, translated into its materiality (MURGUIA, 2009).

Considering the notions of meaning, institutionality, and intentionality - synthesized in the notion of materiality - this article aims to situate, temporally, authors, works, and themes related or tangent to the materiality of the book, specifically seeking to map: 1. Terminological variations of the theme materiality of the book; 2. Brazilian periodicals with greater coverage of the theme; 3. national and international bibliographic, abstract and citation databases with greater incidence of the theme; 4. international periodicals with greater coverage of the theme; 5. Qualis/CAPES stratum of the periodicals that covered the theme; 6. theses, dissertations, and final course work on the theme; 8. quantification of publications and authors who have investigated the theme.

It is considered that the mapping with the visualization of the production on a certain subject is justified by favoring the identification and/or the explicitness of the incidence of themes of interest in areas of knowledge, in this case, Information Science. The methodological contribution occurs with the presentation of paths or alternatives for similar studies. Specifically, it contributes to investigations on the material and institutional dimension of information and the document (RABELLO, 2019), by addressing the book object.

It is hoped that research of this nature can contribute, specifically, by subsidizing investigations that consider materialized and institutionalized information as a document, as well as by corroborating the understanding of the book "beyond information", as is the case of studies of a historical-conceptual and/or thematic-comparative nature in scientific media within the scope of Information Science and related areas.

The notions of meaning, institutionality, and intentionality will be addressed below in terms of the materiality of information and of the book object. Next, we will present the methodology with the criteria for mapping the production on the theme and the details through the use of the *Voyant Tools* tool - developed in the context of digital humanities studies - for the visualization and analysis of the collected data.

2 MATERIALITY OF THE INFORMATION

The area of Information Science has a research tradition that has little focus on the materiality and institutionality of information and documents (RABELLO, 2019), thus, it is noted that the concern to expand interpretations and approach the book in a "holistic way" (CAMPOS; VENÂNCIO, 2006; RABELLO, 2018) constitutes an emerging interest.

This demand can be attributed to the neo-documentalist movement that took place in Information Science starting in the 1990s. A classic text of this period is the article *Information as thing*, by Michael Buckland, published in 1991, which addresses the notion of information as a "thing" (BUCKLAND, 1991), which presupposes, in addition to tangibility, its social and institutional value (RABELLO, 2019).

In this direction, studies began to consider the multiplicity of informational meanings, contexts, and situations. Bernd Frohmann, in *O caráter social, material e público da informação*, 2008, points to the social, public and material aspect of information according to which it is guided by the mass, inertia, energy and resistance of utterances, which generate effects (FROHMANN, 2008).

Thus, information materiality is understood as something beyond the physical aspects of documentary media. Transcending the simplification of dichotomous and simplifying positions conceptually referred in the relation "non-recorded information" and "recorded information", neo-documentary theoretical formulations have raised the need for approaches that consider the complexity of the conceptual and praxeological formulation on the subject.

As an example, we observe formulations of frohmannian inspiration according to which they consider "[...] the origin and the path of information up to the moment of inscription of the sign, that is, the evaluative aspects coming from social and discursive practices". According to this understanding, from such evaluative aspects arise agencies that can express themselves in terms of "[...] pragmatic, symbolic, political, marketing practices, validated in diverse institutionality." (RABELLO, 2019, p. 6, our translation).

The concept of materiality, therefore, differs from the concept of physicality of information (FROHMANN, 2008; RABELLO, 2019), the latter understood as the consubstantiation present in physical properties of the media. The strict cause-effect relationship between information and physicality - presupposed in the idea of recorded information - limits the possibilities of approaches that consider provenance, path, inscription, and social and discursive practices.

Unlike the physicality approach, guiding the physical paradigm of information (CAPURRO, 2007), or the cognitivist or mentalist approach, in which the immateriality of information is presupposed in the gap-filling of the isolated individual, out of context (FROHMANN, 1992), the information materiality approach finds a place in the social or pragmatic paradigm of information (CAPURRO, 2007) by considering the context, for example, of the "[. ...] intentionality attributed to the object even before it is institutionally valued as a document, such as memory, affectivity, identity, instrumentality, biography of the object, among others." (RABELLO, 2019, p. 7, our translation).

The materiality of information is stabilized or gains strength when enunciates or discourses find in the inscription in supports the institutional value that gives it mass, energy, resistance, and permanence (FROHMANN, 2008). The strength of these utterances depends on the relationship of power and authority in associations of actors acting in and with documents (FROHMANN, 1995; 2008): "[...] The weave of the social network presupposed in the institutionality in which the document is integrated gives it vicissitude and life or, in a husserlian expression of power, attributes intentionality to it." (RABELLO; RODRIGUES, 2016, p. 283[1], our translation).

Material culture studies are relevant for understanding the dynamics of the "network of meanings and values" to which objects are inserted (MURGUIA, 2009, p. 89). Objects have a "social" and "cultural life" (APPADURAI, 1991) or a "biography" (KOPYTOFF, 1991), with specific contexts of production and value attribution.

---

[1] By stabilizing and acquiring institutional strength in the object/document, the materiality of information can be studied in the context of institutionalities and institutions apprehended "[...] as spaces of conflicts, disputes and 'legitimation of discourses' for the 'representation of reality'." (RABELLO; RODRIGUES, 2014, p. 10, authors' highlights, our translation).

The very "living" of the objects is part of the values evoked or attributed to them when conceived, for example, as memory documents. Such condition allows, in a historiographical context, the "[...] construction of narratives through their reading and deciphering." (SÁ, 2018, p. 104, our translation). We denote, from this, what can be understood as a "sociomateriality," inferred from a type of materiality that "[...] depends on and is constituted by specific interactions arising in social spaces." (JARDINE, 2017, p. 58).

2.1 Materiality of the book object

The complexity of the book object can be deprecated by understanding it as a document constituted of materialized and institutionalized information (MURGUIA, 2009; RABELLO, 2019). Within the scope of cultural history, one can understand the book as an object of memory, which promotes individual and collective understandings (MENDES *et al.*, 2017). The materiality of books brings implications of a physical nature (related to its very form), personal (relating to human nature), professional and social (RIBEIRO, 2017).

The openness to such implications opens room to ground the premise that the book's materiality is beyond the physicality of the support. Transcending content and form, the book articulates itself with other elements, "[...] in a web of relations from which the very notion of book in Modernity unfolds." (AMORIM et al., 2019, p. 266). The 21st century book instigates cultural debates and is a vector of paradigmatic changes (MURRAY, 2006).

This is because the book's materiality puts into perspective affective and sensory dimensions of reading: "[...] it not only draws attention to the visual and auditory aspects of the text, but also to forms such as the feel, touch, shape, weight, and smell of the bound paper page." Such forms "[...] are part of its aesthetics, provoking affect, emotions, and knowledge." (PLATE, 2015, p. 95). Reading can also be apprehended as a mode of "physical intervention in the text."

> You become aware of your fingers and hands in the process of reading: of reading as a physical intervention in the text. You experience this text, which is about fragmentation, and about the idea of a fragmented reality in the text that is scattered into pieces, with your hands touching the pages (BRILLENBURG WURTH, 2011, p. 7).

This intimate relationship between the book and the reader gave rise to the metaphor of the human body as a book[2]. Commonly, it is said not to judge a book by its cover, referring to human judgment; or that we are an open book, when we have no secrets: "[...] When it comes to the book, the body, and the body as a book, however, these metaphors work well because [...] the body is a book that is written and read through its own circulation through an audience." (HENNINGSEN, 2016, p. 752).

Books carry both symbolic and cultural as well as emotional charge, which is why it is difficult to get rid of them or see them being thrown away - that is to say, between subjects and books there is an intrinsic relationship, as they arouse the most basic feelings of love and loss: "[...] as humans we consume books and are consumed by them." (PROSSER, 2020, p. 518).

Perhaps, because of this, the figure of the bibliophile has arisen, when "[...] the book becomes a fetish object, ingrained in the behavior of the bibliophile or collector, which sometimes results in the extreme of passion, which blinds the discernment and becomes a crime, such as bibliocleptomania." (NOGUEIRA, 2016, p. 97, our translation).

Rubens Borba de Moraes, a great bibliophile, and a precursor of the field of bibliophilic in Brazil, in his book *O Bibliófilo Aprendiz*, discusses this art and provides a guide for future collectors. According to him, bibliophilic is "[...] an amusement, a passionate hobby,

| **5**

---

[2] The metaphors "literary work" and "book" can be visualized in the figure of the "book man", speculated in the dystopian science fiction novel *Fahrenheit 451*, written by Ray Bradbury and published in 1953, with film adaptations by directors François Truffaut in 1966 and Frank Darabont in 2018.

it is precisely the search for what you lack. It is the pleasure in finding the desired copy." (MORAES, 2018, p. 31, emphasis added, our translation). For Rosa (2018), bibliophilic is the art of collecting books, especially rare books[3].

This passion and taste for books "[...] emerges from the practical fusion of communication, aesthetic pleasure, and the pre-reflexive understanding of books as sacred goods" (THUMALA OLAVE, 2020, p. 10). The bibliophile or collector finds in each object of his collection a piece of his identity (SEREJO; JUVÊNCIO, 2020). In private collections, each of these objects "[...] begins to refer to a constellation of facts" (SEREJO; JUVÊNCIO, 2020, p. 208, our translation) about who collects them, that is, the collector has his or her life narrated by the materiality present in these objects.

There are studies that examine the difference between analog books (printed) and digital books (e-books). In one study, respondents claimed to prefer printed books to digital ones, on the grounds that there is "[...] a greater sense of ownership towards the physical book, as opposed to the immateriality of digital libraries." (SEHN; FRAGOSO, 2015, p. 411). In other words, the sense of possession relies on the physicality of the analog support, not only in a having, but in touching the pages and possessing the book object. On the other hand, the digital is configured between its existence in the cloud and its physical portion in hardware - almost as an imperfect substitute for the analog one - because it does not evoke the same feelings in the reader.

There is the understanding that other media, so far, have not evolved in the sense of meeting all the demands of readers, something that helps and explains the maintenance of readers' loyalty to the analog book (ASHTON, 2007). "There is something unique or available in the original material that one cannot get with the digital version - it may be about reliability, authenticity, context, the 'feel' or the fact that it is simpler when no machine is involved [...]" (LATHAM, 2010, p. 11). With such hypothesis it is inferred about the possible more direct and intimate relationship between reader and analog book, something that would not require the mediation - or interference - of a third element, the digital devices.

However, although authors (ASHTON, 2007; LATHAM, 2010; HENNINGSEN, 2016; SEHN; FRAGOSO, 2015) evidence differentiated aspects of the printed book evoked by readers and/or collectors, they converge in understanding that the book, beyond its support (whether analog or digital), constitutes a network of cultural artifacts and devices of symbolic meaning (GRUSZYNSKI; CASTEDO, 2018).

In this direction, books represent "[...] a form of expressivity and sense production, which moves actions, relations, and interactions in dialogical networks." (GOULART, 2016, p. 80, our translation). They are objects that arouse different reactions in readers, ranging from awe to veneration, and make possible "[...] ancient and contemporary practices, solitary and collective, oralized and seen, heard and felt." (GOULART, 2014, p. 17, our translation).

Recognizing the complexity of the aspects that correspond, and are transversal, to the conceptions of book materiality, it is understood that the mapping of the theme can provide subsidies for future research, as well as corroborate, in different nuances, the proposition according to which the book is "beyond information" (MURGUIA, 2009, p. 87), having on the horizon, for such reflection, conceptions of materiality.

3 METHODOLOGY

To meet the objective of mapping the theme of book materiality, considering the variety of authors, works and formal vehicles of communication, searches were conducted in bibliographic, abstract and citation databases in the area of Information Science and related

---

[3] In the definition of the *Dicionário de Biblioteconomia e Arquivologia*, bibliophilia is the "Taste, passion for rare and precious books", and constitutes the "Art and science of bibliophilia" (CUNHA; CAVALCANTI, 2008, p. 46, our translation).

areas: *Base de Dados em Ciência da Informação* (BRAPCI), developed by *Universidade Federal do Paraná* (UFPR), with national coverage; Web of Science, Scopus, Library and Informational Science Abstracts (LISA) and Library, Informational Science & Technology Abstracts (LISTA), the four with international coverage, being the first two multidisciplinary, and the last two from the area of Information Science and related areas (QUEIROZ *et al.*, 2015). Finally, searches were conducted in the thematic repository in Information Science *E-Lis*, the *Biblioteca Brasileira de Teses e Dissertações* (BDTD) and Google Scholar.

The following analysis steps were established for text selection: 1) Search: simple and advanced search with significant terms (pertinent to the theme) and use of the operators available in each database; 2) Preliminary analysis: qualitative analysis of the title, keywords and abstract; 3) Technical reading: reading and analysis of the introduction, methodology, tables/graphs, conclusion and references; and 4) Concept extraction: reading, analysis and extraction of the concepts on the theme.

The main fields used for searches were: title, keyword, subject, and abstract. To delimit the searches, with the exception of BDTD and Google Scholar, the filter "document type - article" was used. This measure was important to enable a more in-depth analysis of the titles considered relevant, and considered to be without prejudice to the analysis, since Information Science has used the article modality as an important means of scientific communication; and the last search, conducted in Google Scholar, had the main objective of reviewing documents that may have escaped the searches in the individual databases.

Regarding the search terms, the following terms were considered significant to represent the theme: "*materialidade*", "*livro*", "*materialidade do livro*", "*institucionalidade*", "*informação*", "*institucionalidade da informação*" e "*ciência da informação*". In the international databases, the english variations used were: "materiality", "book", "book's materiality", "information", and "informational science". These terms were used in compound and/or combined form through the AND operator, varying the fields consulted.

For the selected publications, the following fields were used for description: code (registration number), title, author(s), base/repository, journal, national or international (if the journal/publisher is national - N or international - I), place of publication, date, language, Qualis/CAPES stratum, Google Scholar citations, keywords, abstract, objectives, citations (conceptual extraction from the document), and bibliographic reference. The data were arranged in an Excel spreadsheet.

To achieve the objective of visualizing the data collected, the *Voyant Tools* tool was used. It originated from a project in the area of digital humanities under the responsibility of professors Stefan Sinclair and Geoffrey Rockwell, from McGill University and the University of Alberta, respectively. *Voyant Tools* relies on visualization techniques to analyze documentary corpora and strings for various aspects such as content, similarity, difference, among others. With the intention of helping the exploratory and interpretative practice of texts, the tool enables the individual and general reading of documents interactively (SINCLAIR; ROCKWELL, 2020).

In the area of information, the data visualization allowed by *Voyant Tools* can help both the analysis of texts in research, and serve the development of specialized information services, since it is possible, among other things, to represent large volumes of information on a small scale, reduce search time, identify relationships that might go unnoticed, and stimulate discussion about the represented theme (SANCHEZ TARRAGO, 2021).

The text *Descubriendo críticas al acceso abierto mediante la visualización de textos con Voyant Tools* (SANCHEZ TARRAGO, 2021) addresses the contribution of the tool for exploratory studies, particularly because it is versatile and intuitive for hermeneutic investigations. *Voyant Tools* is a free and open-source tool. It allows different text inputs, in different formats and languages, enabling the gathering of analytical applications (by themes, trends, correspondence, lexicons, syntaxes, etc.), multiple visualizations (by exploration, clusters, navigation, categorization, etc.), and diverse graphical representations (cloud, lines,

| 7

etc.).

The *Voyant tool*s allows selecting a corpus by copying and pasting the text itself or an html page; opening an existing corpus on the web; or even loading files and/or folders from the personal computer. Once the corpus is selected, there are several tools available for analysis, among which, according to Sinclair and Rockwell (2020), are:

1) Cirrus: it is possible to visualize the most frequent words in the corpus in different sizes, and also the relative frequency of each word per document;
2) Reader: allows the reading and analysis of a text;
3) Trends: shows a line graph with the distribution of the relative frequency of terms in relation to the corpus or to a specific document;
4) Summary: provides an overview of the corpus with quantitative characteristics - such as the number of words, most frequent words, document length, vocabulary density, etc.;
5) Contexts: as the name suggests, you can see the words in context, that is, the previous and the subsequent sentence and the term of interest between them;
6) Bubble lines and Bubbles: visualization of the frequency and distribution of the terms per line and in bubbles;
7) Collocates Graph: visualization of terms in proximity to the main term in the network;
8) Mandala: shows the relationships between the selected terms and the documents in which they appear;
9) Scatterplot: allows the creation of conglomerate clusters of words through similarity, correspondence analysis, and components among the texts.

The corpus of analysis was composed of 100 documents in PDF format, corresponding to national and international texts about, or tangent to, the book's materiality. Regarding the nationality criteria, we considered national the texts retrieved from national bibliographic databases, such as BRAPCI, the *E-Lis* repository, and BDTD, for example. And the texts retrieved from international bibliographic, abstract and citation databases, such as LISA, LISTA, Web of Science, etc., were considered international.

In Table 1, in the appendix, it is possible to observe that some texts, even if published in national journals, appear categorized in the international part, as is the case of Novaes (2015) and Saldanha (2015). This happens precisely because they were retrieved from international databases, which denotes those texts in Portuguese language published in national journals - in this case, respectively, *Matraga: Estudos Linguísticos e Literários* and *Informação & Sociedade: Estudos* - indexed in international databases are available to a wider range of researchers.

Among the documents, 79 are articles, 1 is a book chapter, 2 are book review articles, 9 are papers from conference proceedings, 3 are dissertations, 5 are course completion papers, and 1 is a bulletin. Table 1, in the appendix, presents the documents mapped, as well as the analysis and a synthesis of the materiality perspectives identified.

These documents correspond to the period between 1996 and 2020, with the highest occurrence of publications in the years 2017 (14 documents), 2016 and 2018 (both with 13 documents), responding to the specific objective of number 7, which consists of **situating the coverage of the theme temporally**. No criterion of temporal delimitation was used in the research, that is, the mentioned interval was obtained due to the date of the texts recovered with the exploration, something that points to the emergence of the theme, from 1996 on, in the investigations. The corpus was uploaded in web version 2.4 of *Voyant Tools*.

4 RESULTS AND DISCUSSION

The *corpus* of 100 documents has 1,014,189 unique word forms. Among the 25 most frequent and significant words[4], using the **Cirrus** resource, are: "book" (*livro*) or "books" (*livros*), "information" (*informação*), "reading" (*leitura*), "material", "new", "digital", "text", "library" (*biblioteca*), "document" (*documento*), "memory" (*memória*), "science" (*ciência*), "social", "materiality" (*materialidade*), among others.

Figure 1. most frequent terms (in a range up to 25) in the corpus

Source: own preparation based on *Voyant Tools*.

Besides corresponding to the specific objective number 1, which consists in **identifying the variations of the theme book materiality in the terminological scope**, the frequency of these terms - which refer to the dimension of "analog book", "printed book", "physical book", "traditional book", "digital book", "e-book", among others -, allows us to consider the book as the main theme of study in the corpus of analysis, a starting point to understand the book in several aspects, either as a source of information or, beyond that, as an expression of materiality, something that encompasses the physical and symbolic sphere.
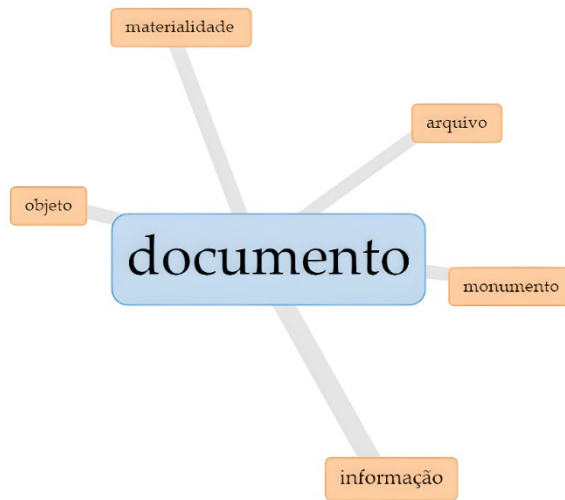
In this sense, the book can be understood as a "semiophor", that is, an object with meanings, among which: an object of memory, which carries cultural and social identity; in the institutional scope, where its materiality evokes/provokes actions and practices, in attributions of intentionality pronounced institutionally; in the digital scope, with which the book, complementarily, enables new readings and formats; in the academic scope, when it serves, simultaneously, as a subject of study and a guide for training and professional practices.

The term "document" (*documento*), in turn, is related to the possibility of constituting a monument[5] (*monumento*), of possessing materiality (*materialidade*), of being an archival object (*objeto de arquivo*), and of containing information (*informação*).

| 9

---

[4] The "Stopwords" feature of *Voyant Tools* was used, which consists of a list of irrelevant words defined by the researcher in order to eliminate non-significant terms such as prepositions, articles, conjunctions, punctuation symbols, and numbers from the results.

[5] Jacques Le Goff discusses the idea of document and monument in his work *História e Memória*. For the author, the legacy of the past is perpetuated in time through *monuments*, and *documents* are materials of the historian's choice that serve as proof for the historical fact. The document/monument conception allows for the understanding of the document as not only something from the past, but as a social product created in the midst of power and force relations. In the author's words, "[...] Only the analysis of the document as a monument allows the collective memory to recover it and the historian to use it scientifically, that is, with full knowledge of the facts." (LE GOFF, 2013, n. p., our translation). For an analysis on the topic within the scope of Information Science, see Rabello and Rodrigues (2018).
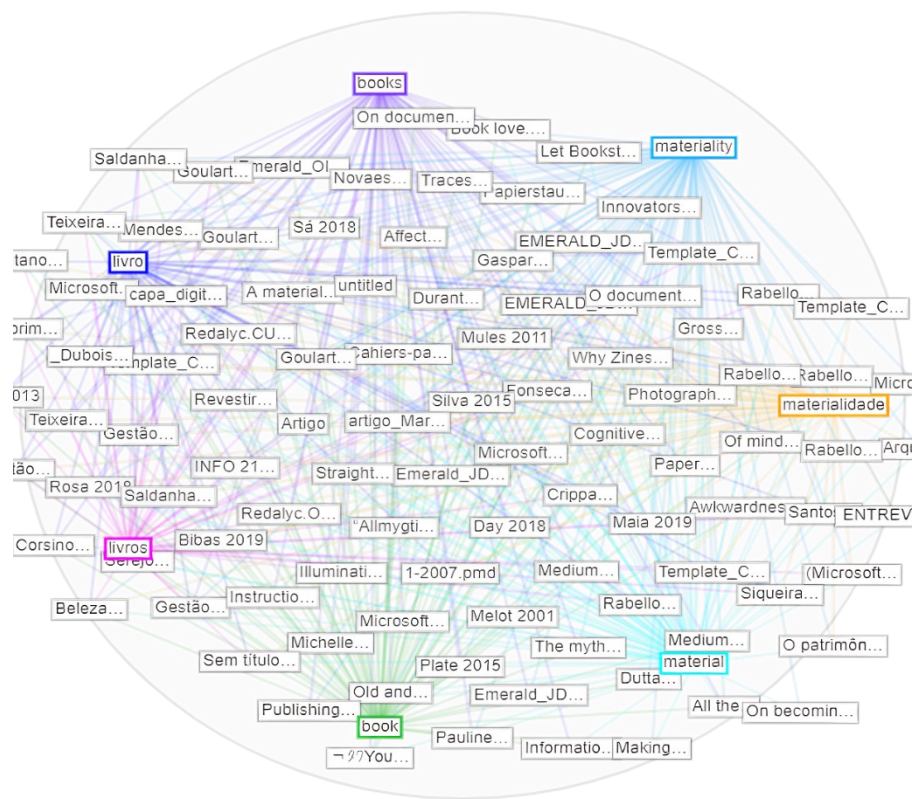
Figure 2: Thematic relations of the term "document" (*documento*) in the corpus

With the **Mandala** tool from Voyant Tools it is possible to visualize the relationships between the terms and the documents that contain them. By selecting the terms "book" (*livro*), "books" (*livros*), "material" and "materiality" (*materialidade*) one can observe that they are mixed in the corpus, characterizing a production that has as its object of interest the theme of the book's materiality.

| 10

Figure 3: Relations between the term's "book" (*livro*), "books" (*livros*), "material" and "materiality" (*materialidade*) and the corpus documents

As can be seen, on the left side of the figure are the authors who deal with "*livro*" (represented in dark blue) and/or "*livros*" (represented in pink). In this theme, authors such as Saldanha (2013), Teixeira (2010), Teixeira *et al.* (2014), Mendes *et al.* (2017), Goulart (2014; 2016), Brentano (2004), Rosa (2018), Bibas (2019), Corsino *et al.* (2017), Beleza (2013), Amorim *et al.* (2019), Campos and Venâncio[6] (2006), Feltre[7] (2015), Gruszynski and Castedo[8] (2018), Cavalcante[9] (2009), Cataldo and Loureiro[10] (2019), Almeida [11](2009), Silva [12](2013), Serejo and Juvêncio (2020), among others.

In the center of the figure are, to a large extent, the authors who deal with the same theme, but in english language, with the use of the terms "book" (represented in green) and "books" (represented in purple). They are: Ashton[13] (2007), Sehn and Fragoso[14] (2016), Thumala Olave [15](2020), Durant and Horava (2015), Hérubel[16] (2019), Mules[17] (2011), Day (2018), Melot (2001), Plate (2015), Novaes (2015), Lanning and Bengtson[18] (2016), Prosser[19] (2020), Franssen and Velthuis [20] (2014), Régnier [21] (2014), Gordon-Burroughs [22] (2017), Martin and Quan-Haase[23] (2016), Hebing[24] (2017), Latham[25] (2010), among others.

Already on the right side of the figure we highlight the authors who address "*materialidade*" (represented in orange) and the english translation "materiality" (represented in light blue), as well as authors who address the "material" aspect (represented in neon blue) - which appeared both in portuguese and english texts. They are: Rabello (2018; 2019), Crippa (2020), Santos (2018), Maia (2019), Siqueira (2015), Souza and Crippa[26] (2011), Andretta and Perrotti[27] (2018), Dutta and Das (2005), Hultin[28] (2019), Luyt and Sagun[29] (2016), O'Sullivan *et al.*[30] (2017), among others.

It is noticeable that the lines running through the mandala blend together, so that it is possible to see lines of all colors very close together. This shows how the texts are related to each other; a text that is in one corner of the mandala, for example, may have its line branching to other corners of the mandala.

In turn, by selecting the term "*materialidade*" in the **Cirrus** tool in *Voyant Tools*, it is

| 11

---

[6]   Appears as "Microsoft..." in the picture.

[7]   Appears as "capa_digit." in the figure.

[8]   Appears as "A material." in the figure.

[9]   Appears as "Redalyc.CU" in the figure.

[10]   Appears as "Template_C" in the figure.

[11]   Appears as "Dubois..." in the figure.

[12]   Appears as "013" in the figure.

[13]   Appears as "On document" in the figure.

[14]   Appears as "Emerald_OI" in the figure.

[15]   Appears as "book love" in the picture.

[16]   Appears as "Pauline..." in the figure.

[17]   Appears as "Publishing..." in the figure.

[18]   Appears as "Traces..." in the figure.

[19]   Appears as "Affect..." in the figure.

[20]   Appears as "untitled" in the figure.

[21]   Appears as "Caheiers-pa..." in the figure.

[22]   Appears as "Straight..." in the picture.

[23]   Appears as "Emerald-JD" in the picture.

[24]   Appears as "Allmygti..." in the picture.

[25]   Appears as "Medium..." in the figure.

[26]   Appears as "Heritage..." in the figure.

[27]   Appears as "Template_C" in the figure.

[28]   Appears as "On becomin..." in the figure.

[29]   Appears as "Let Bookst..." in the picture.

[30]   Appears as "Inovattors" in the picture.

possible to observe that the word was the 21st most repeated term in the corpus, occurring 816 times (absolute frequency). The figure below shows the co-occurrences linked to the term "*materialidade*".

Figure 4: Characterization of the term "*materialidade*" in the corpus
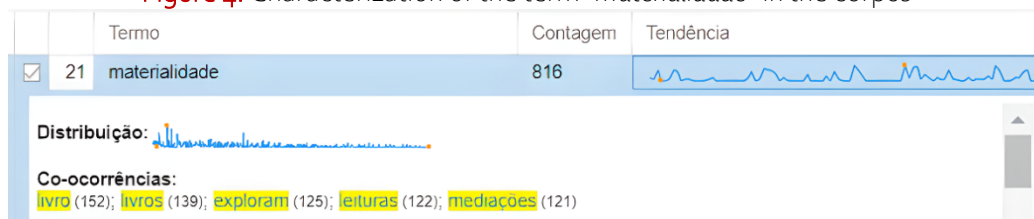
Source: own preparation based on *Voyant Tools*.

In its translation into english - "materiality" - appears as the 51st most repeated term, with 503 occurrences (absolute frequency). The term "*materialidade*", in portuguese, appears in greater co-occurrence with the terms "*livro*" or "*livros*", "*exploram*" (explore), "*leituras*" (readings) and "*mediações*" (mediations). The term "materiality" in english appears in greater co-occurrence with the terms "book," "meaning," "reading," "Human-Computer Interaction," and "document".

Figure 5: Characterization of the term "materiality" in the corpus
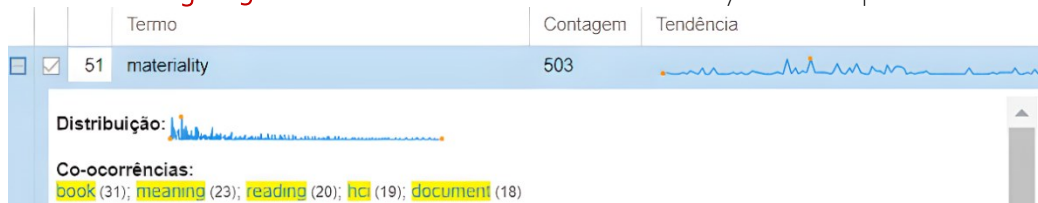
| 12

Source: own preparation based on *Voyant Tools*.

Thus, the theme materiality, in general, correlates with the book object, which contains literary works or not, in spaces such as libraries and configuring certain practices. Moreover, the term materiality correlates with information, with technology, and with the relationship established between human subjects and books, even in the computational context.

By default, the first document that appears in the **Reader** module of *Voyant Tools* is *O objeto de estudo da Ciência da Informação: a morte do indivíduo* (CAMPOS; VENÂNCIO, 2006). The text demonstrates the emergence of the holistic approach in Information Science, pointing to the integration of the material and social dimensions in multiple dimensions. Regarding materiality, the study finds support in Bernd Frohmann, an author who understands it linked to public and social aspects. In general, the reflections in that text highlight the importance of holistic and interdisciplinary constructions in the field of Information Science, which converges with the possibility of considering materiality as an integrating and interdisciplinary element that dialogues with Information Science.

It is also possible to isolate a term to verify its relative frequency in the corpus, through the **Trends** tool of *Voyant Tools*, strategy adopted to understand the incidence of "*materialidade*" and the translation into english - "materiality" -, as can be seen below.

Graph 1. Trends of the term "*materialidade*" and "materiality" in the corpus
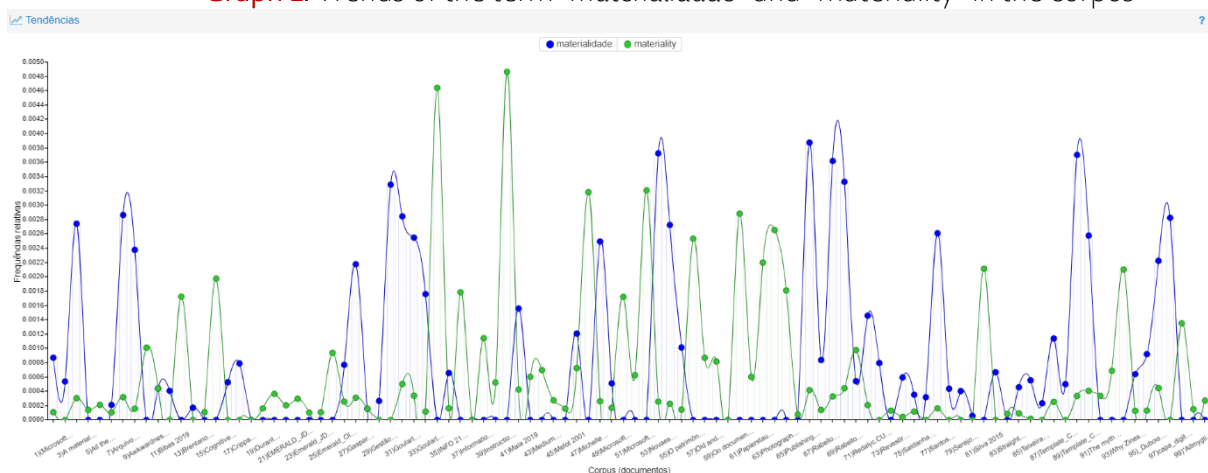
Source: own preparation based on *Voyant Tools*.

The graph is composed, on the vertical line, by the relative frequencies of the documents, where the lowest frequency limit is 0.0000 and the highest frequency limit is 0.0048564. The relative frequency range goes from 0.0000 to 1.0000, where 0.0000 represents that there were no occurrences of the term, and 1.0000 represents that all the terms in the document are the term chosen for analysis. On the horizontal line of the graph are the 100 texts that make up the corpus. The text with the highest relative frequency (0.0048564) is *Let Bookstores be Bygones? Memories and Materiality of Bookstores on the Pages of the Singapore Memory Project* (LUYT; SAGUN, 2016), with 23 occurrences of the term materiality. By clicking on the text in question, another type of analysis can be performed with the **Contexts** tool, which brings the term accompanied by the previous and subsequent sentence:

Figure 6. Contexts (in a range of 1) in "Let Bookstores be Bygones? Memories and Materiality of Bookstores on the Pages of the Singapore Memory Project."

Source: own preparation based on *Voyant Tools* in analysis of Luyt and Sagun, 2016.

Based on this applicability of *Voyant Tools*, the authors (LUYT; SAGUN, 2016) reflect on the Singapore Memory Project, a project that brought several considerations about bookstores as a place of materiality and as a space that is part of the events that occur in people's lives. Bookstores, in the context of the project, are constituted as a place that plays an everyday role in the lives of Singaporeans and influences the book industry, even in the face of online book sales. In this way, the bookstore is a "theater of materiality," whose symbolic potentiality

erects it as an institution of memory in society (LUYT; SAGUN, 2016).

In response to the specific objective number 6, which is to **identify dissertations and graduation papers on the subject, the Mandala** tool presents the most addressed issues in academic production on book materiality. These are texts that address topics such as book, paper (*papel*), page (*página*), among others, which are related to the book's materiality; they also deal with objects that may or may not contain figures (*figuras*) and that are linked to the art (*arte*) world, even if symbolically. In institutions such as libraries (*bibliotecas*), these objects guide readings and inform their audience about various subjects.

Figure 7. Relations between the most significant terms (in a range of 10) and the academic documents in the corpus
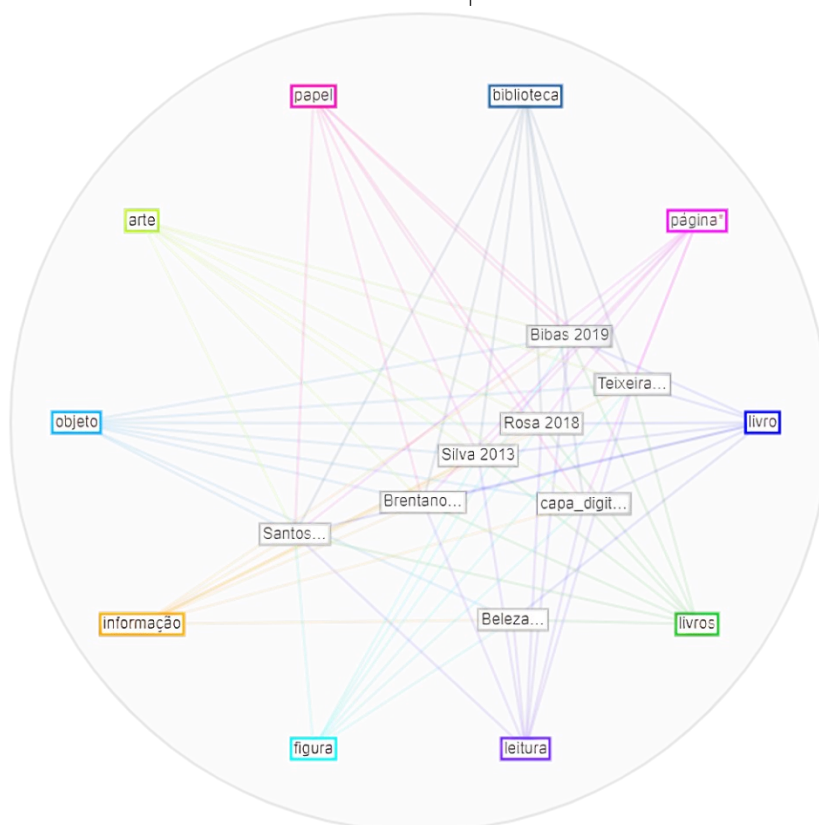
Source: own preparation based on *Voyant Tools*.

The dissertation *Experiências com livros que exploram a sua materialidade: mediações e leituras possíveis* (FELTRE, 2015)[31] corresponds to the text with the highest incidence of the terms "*livros*" (books) and "*materialidade*" (materiality). When analyzing the co-occurrences in relation to the term books, it is observed that it is associated with the reading performed through the exploration of materiality. To this end, the author conducts the workshop *É um livro...?* in some cultural and educational institutions, such as public libraries and the *Fábricas de Cultura* of the State of São Paulo. Based on this mediation, she discusses possible ways to bring children closer to books and reading (FELTRE, 2015).

---

[31] In the image, *Voyant Tools* identifies the text as "front_digital_cover". By clicking on the text, you can read it and identify the necessary information with the reader module.

Figure 8. Co-occurrences (in a range of 10) of the term "*livro*" (book) in *Experiências com livros que exploram a sua materialidade: mediações e leituras possíveis*

	Termo	Co-ocorrência	Contagem (contexto)
☐	livro	leitura	95
☐	livro	oficina	83
☐	livro	durante	64
☐	livro	livro	59
☐	livro	espaço	49
☐	livro	materialidade	46
☐	livro	objeto	43
☐	livro	jardim	32
☐	livro	cultura	30
☐	livro	fábrica	29

Source: own preparation based on *Voyant Tools* in analysis of Feltre (2015).

In relation to the journals, and responding to the specific objectives 2 and 4 (respectively, **to identify the Brazilian journals with greater coverage of the theme** and **to identify the international journals with greater coverage of the theme**), the journals that published the most articles were: *Encontros Bibli* (with 7 articles); *Journal of Documentation* (with 6 articles); *Publishing Research Quarterly* (with 4 articles); *Informação & Sociedade: Estudos*, *Perspectivas em Ciência da Informação*, *Informational Society* and *Library Trends* (with 3 articles, each); *Library and Information Science Research Electronic Journal* (LIBRES), *Tendências da Pesquisa Brasileira em Ciência da Informação* and *Em Questão* (with 2 articles, each).

| 15

The journals were differentiated according to their Qualis/CAPES classification to meet specific objective number 5, which is to **demonstrate the relationship between journals that covered the theme and Qualis/CAPES level of the journals**. The table shows the 2017-2020 qualification for the Communication and Information axis; and the 2013-2016 classification for the Interdisciplinary axis (the most recent evaluation in the CAPES Sucupira Platform).

Table 2. Main journals by Qualis/CAPES classification

Journals	Qualis		
Nationals	Communication and Information Quadrennium 2017-2020	Interdisciplinary Quadrennium 2013-2016	Number of articles
Encontros Bibli: Revista Eletrônica de Biblioteconomia e Ciência da Informação	A2	B3	7
Informação & Sociedade: Estudos	A2	B1	3
Perspectivas em Ciência da Informação	A2	B1	3
Tendências da Pesquisa Brasileira em Ciência da Informação	B2	B4	2
Em Questão	A3	B1	2

Internationals			
Journal of Documentation	A2	without Qualis/CAPES	6
Publishing Research Quarterly	without Qualis/CAPES	without Qualis/CAPES	4
Library Trends	without Qualis/CAPES	without Qualis/CAPES	3
Informational Society	without Qualis/CAPES	without Qualis/CAPES	3
LIBRES	without Qualis/CAPES	without Qualis/CAPES	2

Source: own preparation based on CAPES, c2022, Sucupira Platform.

Regarding the specific objective number 3, which consists of **identifying the national and international bibliographic, abstract and citation databases with greater incidence of the theme,** most publications are accessible via BRAPCI (32 publications), which demonstrates the comprehensiveness of this database at a national level. In second place comes LISA (with 22 publications), followed by Scopus (with 12 publications), Web of Science (with 9 publications), and LISTA (with 5 publications). In the other sources consulted, the following results are observed: Google Scholar (with 12 publications); *E-Lis* repository (with 5 publications) and BDTD (with 3 items).

Finally, to meet specific objective number 8, which consists in **pointing out - by number of identified publications - the authors who have investigated the theme,** these are the authors who have most published on the subject: Rodrigo Rabello (7 publications); Georgete Medleg Rodrigues (with 5 publications); Ilsa do Carmo Vieira Goulart and Kiersten F. Latham (with 3 publications each); Eduardo Ismael Murguia and Gustavo Silva Saldanha (with 3 publications each); and Giulia Crippa, Joost Kircz, Paulien Kreutzer, Alcenir Soares dos Reis, Diane H. Sonnenwald, and Judith Stoop (with 2 publications each).

| **16**

5 CONCLUSIONS

The materiality of information has raised - in a period of 24 years (from 1996 to 2020) - new approaches in the field of Information Science that allow to expand the interpretations about the documents, by considering the various aspects that transcend the supports, such as social, cultural, institutional, symbolic, affective, among others.

In this sense, the mapped texts bring indications in this regard, since each one with its own particularity highlights the complex and multifaceted character of information inserted in a network of social, cultural, temporal and/or economic interactions in which the various layers of institutionalization of documents unfold, in modes of institutionality that take shape in the symbolic space of libraries, museums, archives, private collections, among others.

The mapping demonstrated the emergence of the theme, as well as relevant points for research in the field. To think of the book in a holistic way, in this sense, is to consider its multiple dimensions. We highlight the analog book, printed or physical, as well as the digital book or e-book, whose physicality manifests itself in hardware and in the relationship between subject and object, characterized in the modification of practices and behaviors, as well as in the creation of new documentalities.

The differentiation between traditional books and digital books corresponds to a recurring issue in research on materiality, something that can be observed in greater detail in the mapping conducted (see Table 1). According to the survey, there are interpretations about the importance or differentiation of printed books, sometimes in opposition to digital books, and vice-versa. The book - when studied based on the multidimensionality of materiality, whether expressed in analog or digital media - is constituted as a symbolic object beyond being conceived as a mere source of information.

This "beyond" was evidenced in the mapped studies. In them, it is pointed out, for

example, the book's relationship with individual and collective memory. The book, in fact, presents itself as an actor that provokes actions at the personal level (in order to form private collections, for example) and at the institutional level (in the formation of collections that express some institutional mission, for example). As a document, the book has institutional and/or scientific authority, being a source and object of knowledge, and presents itself as the translation of power relations, that is, in situations of asymmetry and tension of knowledge, of modes of inscription and of languages.

The *Voyant Tools* resources were useful for these and other considerations about the mapped texts. Regarding materiality, the term appears in direct relation to the book, defining the scope of interest of the analysis. Moreover, materiality, in conceptual terms, is a property of information and is present even before the information is recorded in any support. Even so, the materiality of information can be expressed not only in the book object, but also in other objects present in everyday life, thus preceding its consideration as an informational and/or institutionalized "thing". In a word, the materiality of information precedes the valuation of the object as a document. In any case, objects imbued with meaning, whether addressed as books and/or as documents, are semiophors characterized by their materiality.

Regarding the bibliometric results, it was found that a large part of the universe of publications consists of scientific articles, published between 1996 and 2020, with its peak of publications in the year 2017. The Brazilian journal that most covered the theme was *Encontros Bibli*. The international journal that most covered the theme was *Journal of Documentation*.

The database that most covered the theme was BRAPCI, and, at the international level, LISA. Among the authors who have most published on the subject, the brazilians Rodrigo Rabello, Ilsa do Carmo Vieira Goulart, Georgete Medleg Rodrigues and Gustavo Silva Saldanha stand out, besides the peruvian Eduardo Ismael Murguia, who lived in Brazil, and the north american Kiersten F. Latham.

| **17**

Finally, it is noted that investigations that use the thematic mapping resource, as well as the strategy of visualization and analysis of the results through tools - especially with open-source software, as is the case of *Voyant Tools* - are relevant to identify not only the importance of the researched theme for a certain area, but also to guide future investigations.

In this direction, future studies can be conducted, for example, for the mapping, visualization, and analysis of texts and authors that stand out in the investigation about the book. With this, it would be possible to identify the areas of origin - of formation and professional and research performance - of the main researchers, as well as to identify which other courses, besides those in dialogue with Information Science, such as Librarianship courses, have been interested and have worked with the theme of the book.

REFERENCES

AMORIM, A. K. A. **O livro para além da informação**: materialidade a partir de dimensões histórico-conceituais e temático-comparativas em anais de eventos e em periódicos brasileiros em Ciência da Informação. 2021. Trabalho de Conclusão de Curso (Graduação em Biblioteconomia) – Curso de Biblioteconomia, Faculdade de Ciência da Informação, Universidade de Brasília, Brasília, 2021. Available at: https://bdm.unb.br/bitstream/10483/30051/1/2021_AnaKarolinaAlvesAmorim_tcc.pdf. Access on: 29 set. 2022.

AMORIM, I. S. *et al*. A estrutura do livro como matriz de ordenação do conhecimento. **Em Questão**, Porto Alegre, v. 25, p. 264-287, 17 out. 2019. DOI: http://dx.doi.org/10.19132/1808-5245250.264-287. Available at: https://seer.ufrgs.br/EmQuestao/article/view/92374. Access on: 1 set. 2022.

APPADURAI, A. Introdución: las mercancías y la política del valor. *In*: APPADURAI, A. (Ed.). **La vida social de las cosas**: perspectiva cultural de las mercancías. México: Grijalbo, 1991. p. 17-87.

ASHTON, S. On document supply in Ireland and the USA: experiences at the boole library, cork university. **Interlending & Document Supply**, [*s. l.*], v. 35, n. 4, p. 226-227, 20 nov. 2007. DOI: http://dx.doi.org/10.1108/02641610710837545. Available at: https://bit.ly/3AwPaJk. Access on: 1 set. 2022.

BRILLENBURG WURTH, K. Old and new medialities in Foer's Tree of Codes. **CLCWeb**: Comparative literature and culture, Indiana, v. 13, n. 3, p. 14, 2011. DOI: http://dx.doi.org/10.7771/1481-4374.1800. Available at: https://docs.lib.purdue.edu/cgi/viewcontent.cgi?article=1800&context=clcweb. Access on: 1 set. 2022.

CAMPOS, L. F. B.; VENÂNCIO, L. S. O objeto de estudo da Ciência da Informação: a morte do indivíduo. **Informação & Informação**, Londrina, v. 11, n. 1, p. 5-25, jan./jun. 2006. Available at: http://www.uel.br/revistas/uel/index.php/informacao/article/view/1720. Access on: 1 set. 2022.

COORDENAÇÃO DE APERFEIÇOAMENTO DE PESSOAL DE NÍVEL SUPERIOR (Brasil). Plataforma Sucupira. *In*: COORDENAÇÃO DE APERFEIÇOAMENTO DE PESSOAL DE NÍVEL SUPERIOR (Brasil). **Qualis Periódicos**. [Brasília, DF]: Coordenação de Pessoal de Nível Superior, c2022. Available at: https://bit.ly/3wPEcNU. Access on: 1 set. 2022.

CAPURRO, R. Epistemología y Ciencia de la Información. **Enlace**, Maracaibo, v. 4, n. 1, p. 11-29, 2007. Available at: http://ve.scielo.org/scielo.php?script=sci_arttext&pid=S1690-75152007000100002. Access on: 1 set. 2022.

CUNHA, M. B.; CAVALCANTI, C. R. O. **Dicionário de biblioteconomia e arquivologia**. Brasília: Briquet de Lemos, 2008. 451 p.

FELTRE, C. **Experiências com livros que exploram a sua materialidade**: mediações e leituras possíveis. 2015. Dissertação (Mestrado em Artes) – Curso de Pós-Graduação em Artes, Instituto de Artes, Universidade Estadual Paulista, São Paulo, 2015. Available at: https://repositorio.unesp.br/handle/11449/132012. Access on: 28 jul. 2022.

FROHMANN, B. The power of images: a discourse analysis of the cognitive viewpoint. **Journal of Documentation**, Bingley, v. 48 n. 4, p. 365-386, abr. 1992. Available at: https://www.emerald.com/insight/content/doi/10.1108/eb026904/full/html. Access on: 1 set. 2022.

FROHMANN, B. Taking information policy beyond information science: applying the actor network theory. *In*: ANNUAL CONFERENCE OF THE CANADIAN ASSOCIATION FOR INFORMATION SCIENCE (CAIS/ACSI), 23., 1995, Edmonton. **Proceedings** [...]. Edmonton: CAIS, 1995. Available at: https://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.517.5320&rep=rep1&type=pdf. Access on: 28 jul. 2022.

FROHMANN, B. O caráter social, material e público da informação. *In*: FUJITA, M.; MARTELETO, R.; LARA, M. (Org.). **A dimensão epistemológica da ciência da**

| **18**

informação e suas interfaces técnicas, políticas e institucionais nos processos de produção, acesso e disseminação da informação. São Paulo: Fundepe, 2008. p. 19-34.

GOULART, I. C. V. Entre a materialidade do livro e a interatividade do leitor: práticas de leitura. **RDBCI**: Revista Digital de Biblioteconomia e Ciência da Informação, Campinas, v. 12, n. 2, p. 5-19, 2014. DOI: https://doi.org/10.20396/rdbci.v12i2.1611. Available at: https://periodicos.sbu.unicamp.br/ojs/index.php/rdbci/article/view/1611. Access on: 1 set. 2022.

GOULART, I. C. V. A compreensão e conceituação de livro num jogo de representações. **Leitura**: Teoria & Prática, Campinas, v. 34, n. 67, p. 69-82, 2016. DOI: https://doi.org/10.34112/2317-0972a2016v34n67p69-82. Available at: https://ltp.emnuvens.com.br/ltp/article/view/512. Access on: 1 set. 2022.

GRUSZYNSKI, A. C.; CASTEDO, R. S. A materialidade do livro na contemporaneidade: imbricamentos entre imediação e hipermediação. **Interin**: Revista do Programa de Pós-Graduação em Comunicação e Linguagens Universidade Tuiuti do Paraná, Curitiba, v. 23, n. 1, p. 238-255, jan./jun. 2018. Available at: https://www.redalyc.org/journal/5044/504459789014/504459789014.pdf. Access on: 1 set. 2022.

HENNINGSEN, K. "You deciphered me and now I am plain to read": How the Body Is a Book. **Library trends**, Baltimore, v. 64, n. 4, p. 741-755, 2016. Available at: https://bit.ly/3pNnLxy. Access on: 1 set. 2022.

HOU, J.; RASHID, J.; LEE, K. M. Cognitive map or medium materiality? Reading on paper and screen. **Computers in Human Behavior**, Amsterdam, v. 67, p. 84-94, 2017. DOI: https://doi.org/10.1016/j.chb.2016.10.014. Available at: https://bit.ly/3PSzzZW. Access on: 1 set. 2022.

JARDINE, B. State of the field: Paper tools. **Studies in History and Philosophy of Science Part A**, Amsterdam, v. 64, p. 53-63, ago. 2017. DOI: https://doi.org/10.1016/j.shpsa.2017.07.004. Available at: https://bit.ly/3clMcPx. Access on: 1 set. 2022.

KOPYTOFF, I. La biografía cultural de las cosas: la mercantilización. *In*: APPADURAI, A. (Ed.). **La vida social de las cosas**: perspectiva cultural de las mercancías. México: Grijalbo, 1991. p. 89-122.

LATHAM, K. Medium rare: Exploring archives and their conversion from original to digital part one: Lessons from the history of print media. **LIBRES**: Library & Information Science Research Electronic Journal, Perth, v. 20, n. 2, 2010. Available at: https://bit.ly/3AMedcy. Access on: 1 set. 2022.

LE GOFF, J. **História e memória**. Campinas: Editora da Unicamp, 2013.

LUYT, B.; SAGUN, K. Let Bookstores be Bygones? Memories and Materiality of Bookstores on the Pages of the Singapore Memory Project. **Publishing Research Quarterly**, New York, v. 32, n. 2, p. 139-147, 2016. Available at: https://bit.ly/3AwSx2W. Access on: 1 set. 2022.

MENDES, L.; CUSTÓDIO, M.; EGGERT-STEINDEL, G. Livro didático: o despertar da memória afetiva. **Revista Brasileira de Biblioteconomia e Documentação**, São Paulo, v. 13,

| 19

p. 932-943, 2017. Available at: https://rbbd.febab.org.br/rbbd/article/view/1043. Access on: 1 set. 2022.

MORAES, R. B. **O bibliófilo aprendiz**. São Paulo: Biblioteca Brasiliana Guita e José Mindlin, 2018.

MURRAY, S. Publishing studies: Critically mapping research in search of a discipline. **Publishing Research Quarterly**, New York, v. 22, n. 4, p. 3-25, 2006. Available at: https://link.springer.com/article/10.1007/s12109-007-0001-4. Access on: 01 set. 2022.

MURGUIA, E. I. O colecionismo bibliográfico: uma abordagem do livro para além da informação. **Encontros Bibli**: Revista Eletrônica de Biblioteconomia e Ciência da Informação, Florianópolis, n. especial, 1. sem., p. 87-104, 2009. Available at: https://www.redalyc.org/pdf/147/14712771007.pdf. Access on: 1 set. 2022.

NOGUEIRA, W. A. Reflexões sobre o livro digital: circulação, preservação e fixação. **Informação@Profissões**, Londrina, v. 5, n. 1, p. 94-110, 2016. https://doi.org/10.5433/2317-4390.2016v5n1p94. Available at: https://brapci.inf.br/index.php/res/v/62739. Access on: 1 set. 2022.

PLATE, L. How to do things with literature in the digital age: Anne Carson's Nox, multimodality, and the ethics of bookishness. **Contemporary Women's Writing**, Oxford, v. 9, n. 1, p. 93-111, jan. 2015. DOI: https://doi.org/10.1093/cww/vpu038. Available at: https://academic.oup.com/cww/article-abstract/9/1/93/414182. Access on: 1 set. 2022.

POMIAN, K. História Cultural, História dos Semióforos. *In*: RIOUX, J-P.; SIRINELLI, J-F. (Org.). **Para uma história cultural**. Lisboa: Estampa, 1998. p. 71-95.

PROSSER, D. Affect and deaccessioning in the academic library: Feelings about books and place. **Library Trends**, Baltimore, v. 68, n. 3, p. 506-520, 2020. DOI: https://doi.org/10.1353/lib.2020.0003. Available at: https://bit.ly/3QUKvYi. Access on: 1 set. 2022.

QUEIROZ, D. G. C.; VILAN FILHO, J. L.; MOURA, A. M. M. Visibilidade de artigos de periódicos científicos brasileiros de matemática nas bases de dados internacionais. *In*: ENCONTRO NACIONAL DE PESQUISA EM CIÊNCIA DA INFORMAÇÃO, 16., 2015, João Pessoa. **Anais** [...] João Pessoa: UFRGS, 2015. Available at: https://repositorio.unb.br/handle/10482/31614. Access on: 1 set. 2022.

RABELLO, R. Documento e institucionalidades: dimensões epistemológica e política. **Encontros Bibli**: revista eletrônica de biblioteconomia e ciência da informação, Florianópolis, v. 23, n. 51, p. 138-156, jan. 2018. Available at: https://www.redalyc.org/journal/147/14753783011/html/. Access on: 29 set. 2022.

RABELLO, R. Informação institucionalizada e materializada como documento. **Brazilian Journal of Information Science**, São Paulo, v. 13, n. 2, p. 5-25, 2019. Available at: https://revistas.marilia.unesp.br/index.php/bjis/article/view/8932. Access on: 29 set. 2022.

RABELLO, R.; RODRIGUES, G. M. Prova documental: inscrições e materialidade. **Tendências da Pesquisa Brasileira em Ciência da Informação**, João Pessoa, v. 7, n. 2, 2014. Available at: https://repositorio.unb.br/handle/10482/24678. Access on: 29 set. 2022.

| 20

RABELLO, R.; RODRIGUES, G. M. Documento, forma e materialidade: abordagens probatórias e representação da realidade. *In*: ENCONTRO NACIONAL DE PESQUISA EM CIÊNCIA DA INFORMAÇÃO, 17., 2016, Salvador. **Anais**... Salvador: ANCIB, 2016. Available at: https://repositorio.unb.br/handle/10482/31621. Access on: 29 set. 2022.

RABELLO, R.; RODRIGUES, G. M. Informação como prova ou monumento: materialidade, institucionalidade e representação. *In*: ENCONTRO NACIONAL DE PESQUISA EM CIÊNCIA DA INFORMAÇÃO, 19., 2018, Londrina. **Anais**... Londrina: ANCIB, 2018. Available at: https://brapci.inf.br/index.php/res/v/102585. Access on: 29 set. 2022.

RIBEIRO, A. E. O bibliógrafo digital: questões sobre a materialidade do livro no século xxi. **Perspectivas em Ciência da Informação**, Belo Horizonte, v. 22, p. 120-130, jul. 2017. DOI: http://dx.doi.org/10.1590/1981-5344/3236. Available at: https://www.scielo.br/j/pci/a/HMPsXvVYqTbC44KtgMs6xHm/abstract/?lang=pt. Access on: 1 set. 2022.

ROSA, F. P. **Bibliófilos**: seu papel social na preservação e disseminação da cultura impressa. 2018. Trabalho de Conclusão de Curso (Bacharelado em Biblioteconomia e Ciência da Informação) – Faculdade de Biblioteconomia e Ciência da Informação, Fundação Escola de Sociologia e Política de São Paulo, São Paulo, 2018. Available at: http://biblioteca.fespsp.org.br:8080/pergamumweb/vinculos/000009/0000093d.pdf. Access on: 22 set. 2022.

SÁ, A. T. A imagem fotográfica como representação e documento: um estudo a partir das fotografias de objetos da sala de visitas do escritor jorge amado. **Informação & Sociedade**: Estudos, João Pessoa, v. 28, n. 1, jan./abr. 2018. Available at: https://www.brapci.inf.br/_repositorio/2018/05/pdf_310f126f4a_0000030150.pdf. Access on: 1 set. 2022.

SANCHEZ TARRAGO, N. Descubriendo críticas al acceso abierto mediante la visualización de textos con Voyant Tools. **Revista Cubana de Información en Ciencias de la Salud**, La Habana, v. 32, n. 1, p. 1824, mar. 2021. Available at: https://www.medigraphic.com/cgi-bin/new/resumen.cgi?IDARTICULO=105361. Access on: 1 set. 2022.

SEHN, T. C. M.; FRAGOSO, S. The synergy between eBooks and printed books in Brazil. **Online Information Review**, Bingley, v. 39, n. 3, p. 401-415, jun. 2015. DOI: https://doi.org/10.1108/OIR-01-2015-0006. Available at: https://bit.ly/3TjmwUs. Access on: 1 set. 2022.

SEREJO, V.; JUVÊNCIO, C. H. Livro, identidade e memória. **Memória e Informação**, [*s. l.*], v. 4, n. 2, p. 193-210, 2020. Available at: http://memoriaeinformacao.casaruibarbosa.gov.br/index.php/fcrb/article/view/138. Access on: 1 set. 2022.

SINCLAIR, S.; ROCKWELL G. **About** - Voyant Tools Help. [*S. l.:s. n.*], 2020. Available at: https://voyant-tools.org/docs/%23!/guide/about. Access on: 1 set. 2020.

THUMALA OLAVE, M. A. T. Book love. A cultural sociological interpretation of the attachment to books. **Poetics**, Amsterdam, v. 81, p. 101440, ago. 2020. DOI: https://doi.org/10.1016/j.poetic.2020.101440. Available at: https://bit.ly/3PSRsrB. Access on: 1 set. 2022.

| **21**