

Heuristic analysis of the presence of information policies in open access legal databases in Brazil

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ABSTRACT

This study was conducted as part of the project entitled “Management of Scientific Information in the Context of Open Science,” which was funded by the National Council for Scientific and Technological Development (CNPq). The objective of this study is to analyze the information policies of open access databases dedicated to the field of law in Brazil. The study’s specific objectives are threefold: (a) to define the concept of information policy and its impact on the creation of a national open access database dedicated to the field of law, (b) to map the main databases in the field of law based on the recognition of their maintaining institutions, and (c) to describe the elements that make up the existing information policies in the databases analyzed in this research. The research employs an exploratory approach and a heuristic analysis based on an analytical tool. The results demonstrate the existence of these policies in the databases under examination, although not always explicitly. This, therefore, highlights the importance of this presence in order to consolidate information management in legal databases and to fulfill one of the principles of open science, namely transparency.

Keywords: information, policy, law database, information source, open science

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1. INTRODUCTION

The advent of digital information has had a profound impact on the manner in which knowledge is produced across a multitude of domains, including the social, scientific, and professional realms. The digital transformation has had an impact on even the most conservative fields, such as law. The objective of accelerating access to information through electronic sources is now a tangible reality across the entire spectrum of knowledge. It is evident that the humanities and social sciences encounter challenges when assessing their scientific output. This is due to the distinctive attributes of this literature, which restrict its inclusion in the international databases most pertinent to evaluations that consider citation indicators. However, this situation has evolved over time (Spera & Mugnaini, 2019). This change is gradual, and thus, the indexed international databases that generate bibliometric indicators do not reflect the scientific literature in areas such as law. This reinforces the need to create regional sources of information that encompass the fields of the humanities and social sciences in a more comprehensive and complete way. The recommendation to create regional citation indexes is not a new one; indeed, it was even made by one of the world's leading scholars on the subject, Garfield (1995).

Santin and Caregnato (2019) emphasized the significance of regional and national databases and indexes for the

assessment of peripheral science, with a particular focus on Latin America. The authors posit that, among other reasons, the “low representation of publications is certainly the main reason for creating local indexes in LA and other peripheral contexts.” Regional citation indexes have already been established in countries such as Brazil, China, Korea, India, and Russia, with the Scientific Electronic Library Online (SciELO) serving as a notable example. Additionally, Latin America has another comprehensive database, Redalyc. Nevertheless, these initiatives are inadequate to ensure comprehensive coverage of scientific output in these countries. This research was conducted as part of the project “Management of Scientific Information in the Context of Open Science,” funded by the National Council for Scientific and Technological Development (CNPq). One of the planned outcomes is the establishment of a research database in the field of law, initially planned for national coverage of literature in this area.

One of the initial stages in the planning process for the database was to identify and evaluate existing sources of information within this field, benchmarking their documentation and functionalities. In regard to the documentation required for the creation of a database, it is believed that information policies are essential for its planning and for guaranteeing the quality, reliability, and accessibility of the information available in these repositories, as well as regulating its use. Considering the problem presented so far, which shows that the coverage of scientific literature in regional and national databases, especially in the areas of humanities and social sciences, is scarce and lacks more effective and adequate evaluation mechanisms, the question is how are the information policies of open access databases dedicated to the field of law in Brazil characterized?

In order to respond to this question, the objective of this research is to analyze the information policies of open access databases dedicated to the field of law in Brazil. In order to achieve this, the following steps have been taken:

- a. The concept of information policy has been defined, and its impact on the creation of a national open access database dedicated to the field of law has been recognized.
- b. The main databases in the field of law have been mapped based on the recognition of their maintaining institutions.
- c. The elements that make up the existing information policies in the databases analyzed in this research have been described.

The function of an information policy is to establish the legal and institutional framework for the formal exchange of information. Accordingly, an information policy addresses technical and bureaucratic political objectives (Caridad Sebastián et al., 2000). Information policies are designed to meet the needs of a diverse range of actors, including individuals, organizations, and machines, while also regulating access, use, transmission, and storage of information of varying types. Furthermore, information policies delineate the obligations of the various parties with respect to the proper management of the information they possess (Hill, 1995). Once the concept and purpose of information policies are understood, it can be stated that publishers, scientific journals, information systems, portals, and databases are some of the organizations and/or sources of information that should make information policies available in an objective, transparent, and accessible

way. Following this introduction, the literature review is presented, after which the methodological path is outlined. The results are then presented and discussed, and the work concludes with final considerations and a list of references.

2. LITERATURE REVIEW

The subject of information policy is a complex and multifaceted area, comprising a variety of concepts, definitions, and approaches. Lemos (1987) defines policy as a set of guidelines and principles that are based on generic and consensual foundations, directing actions toward specific objectives. This suggests that information policy is inherently linked to the principles that govern the acquisition, production, dissemination, and circulation of information in particular contexts. Caridad Sebastián et al. (2000) further develop this perspective by arguing that information policy aims to guarantee citizens' right to information, emphasizing the significance of clearly defined objectives as a fundamental aspect of formulating effective information policies. Similarly, González de Gómez (1999) posits that information policy introduces a systemic concept of a set of actions and decisions that shape society's information environment.

It should be noted that:

an information policy, in its broadest form, can be defined as the set of actions and decisions aimed at preserving and reproducing, or changing and replacing an information regime, and can be either tacit or explicit, micro or macro policies, and in principle the locus of its manifestation would be the state and public policies (González de Gómez, 1999, p. 2).

It is, therefore, crucial to define what is meant by an information regime. González de Gómez (2002, p. 34) defines an information regime as

[...] a dominant mode of informational production in a social formation, according to which informational subjects, institutions, rules and authorities are defined, the preferred means and resources of information, the standards of excellence and organizational arrangements for its selective processing, its preservation and distribution devices.

In the view of Frohmann (1995), policies must be founded upon an information regime, which is defined as “more or less stable set of formal and informal networks in which information is generated, organized and transferred from different producers, through many different means, channels, and organizations, to different recipients or receivers of information.” In light of the aforementioned concepts and the significance of establishing an information policy, the intricacy and importance of information policies on database websites become evident.

Delaia and Freire (2010, p. 109) posit that “the concept of Information Regime highlights components that contribute to the understanding of an Information Policy and to relations between and among communities and institutions with regard to information actions.” As this research project is designed to examine information policies and subsequently identify optimal practices for formulating information policies for a particular information source, it is deemed pertinent to define information policy as “[...] the result of a process of developing rules, regulations or guidelines that affect the information cycle, encompassing processes related to the creation, production, distribution,

access and use of information” (Pasek, 2015, p. 298). It is, therefore, anticipated that national databases will encompass a range of policies, including those pertaining to indexing, privacy, information security, access to information, data, copyright, and ethics.

It is similarly crucial to situate information policies within the broader context of open science. If open science is conceived of “as a process, something under construction, which mobilizes different (and, in some respects, antagonistic) interests and points of view; and which also allows for multiple (and sometimes conflicting) interpretations,” many important dimensions can be linked to this understanding (Albagli, 2015). Open science is regarded as a movement that promotes transparency and accessibility throughout the entire scientific process, from its inception to its dissemination. It can thus be surmised that the information policies of a scientific journal database, for instance, will provide transparency with regard to the guidelines and standards pertaining to information sources across a range of dimensions in accordance with the recommendations of open science. Furthermore, it is recommended that open access information sources, such as scientific journals and databases, establish an information policy focused on open science, for example, for the sharing of scientific research data. Furthermore, it is argued that “open science—as an international movement that has been advocating the openness of publications, research data, methodologies, software codes, among others—expands the possibility of innovation not only in scientific research, but also in the way science is communicated” (Shintaku & Sales, 2019, p. 13).

The UNESCO Recommendations on open science identify transparency, scrutiny, criticism, and reproducibility as

one of the fundamental principles that should be upheld in the scientific community. Accordingly, the recommendations state that:

greater openness should be promoted at all stages of the scientific enterprise, with the aim of enhancing the power and rigor of scientific results, increasing the societal impact of science and expanding the capacity of society as a whole to solve complex and interconnected problems (UNESCO, 2022).

Therefore, “more openness leads to more transparency and trust in scientific information and reinforces the fundamental characteristic of science, as a distinct form of knowledge based on evidence and verified against reality, logic and the scrutiny of scientific peers” (UNESCO, 2022).

3. METHODOLOGY

This research was conducted using a mixed-methods approach, combining elements of exploratory research and heuristic analysis. Initially, data were collected by reviewing the literature and consulting relevant academic studies, which provided an understanding of the context of law databases in Brazil. Additionally, an analysis protocol was developed to guide the heuristic experience during interaction with the databases’ web pages. The protocol included the following variables:

- Database maintainer: Identification of the entity or institution responsible for maintaining the database.
- Country of origin: Identification of the country where the database is based.
- Area of concentration: Identification of the specific area of law to which the database is dedicated.

- Policies: Analysis of the policies present on the databases' web pages.
- Licensing: Evaluation of information related to content licensing.

The sample for the research experiment consisted of seven legal databases, selected on the basis of their institutional relevance in the area. This criterion was applied in order to ensure that the databases included in the sample play a significant role in the production and dissemination of legal information in Brazil. Furthermore, the selection was based on the criterion of open access databases, reflecting a commitment to transparency and the availability of information. Furthermore, it was resolved that the databases should encompass disparate spheres of the Brazilian legal system, including the legislature, the judiciary, and the Public Prosecutor's Office. This ensures a more comprehensive view of information policies across diverse legal domains. Additionally, the databases should offer a multifaceted content array, encompassing legislation, case law, legislative documents, opinions, and other pertinent materials. This facilitates a nuanced examination of information policies across various legal documents. Furthermore, the databases are digital and allow online access and heuristic analysis, which aligns with the theme of information management in the context of open science. Consequently, all the selected databases are maintained by Brazilian federal authorities and are representative of the national legal context, providing information relevant to the entire country.

Of the databases selected, three are maintained by the Federal Senate, which is one of Brazil's foremost federal institutions in the legislative domain. This deliberate choice of databases maintained by specific institutions

underscores the importance of institutional and federal relevance, offering a more precise and focused approach to the examination of information policies in legal databases in Brazil (Table 1).

Table 1. Sample of digital databases from the law domain of this research.

LAW DATABASES
Digital Library of the Chamber of Deputies
Library of the Higher School of the Public Prosecutor’s Office of the Union
LexML Brazil
RVBI
Federal Senate Digital Library
BDJur—Superior Court of Justice
Federal Supreme Court

Source: Author.

The heuristic analysis was conducted by navigating the web pages of the databases in accordance with the established protocol. During the analysis, the policies present in the databases were identified. In addition, the level of information maturity was determined, which may indicate the degree of definition, clarity, and accessibility of these policies. This methodology permitted an in-depth analysis of the information policies in law databases in Brazil, emphasizing the significance of the presence of these policies for the effective management of information on these platforms, in accordance with the objectives of the “Management of Scientific Information in the Context of Open Science” project.

4. RESULTS

The research experiment included a sample of seven databases, selected for their relevance in the field and for being open access. All of the databases are maintained by Brazilian federal government institutions, with three of them being maintained by the Federal Senate (Figure 1).

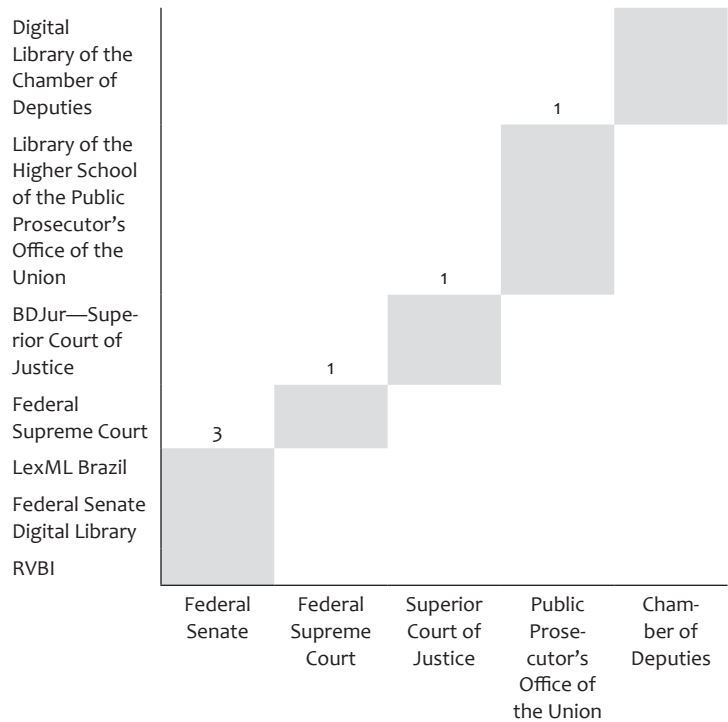


Figure 1. Maintaining institutions of the digital databases of this research. Source: Author.

A review of the digital databases revealed that the majority of the databases listed are focused on the area of law. However, three databases cover areas other than law, including public administration, political science, political

history, economics, public budgeting, and humanities and social sciences (Figure 2).

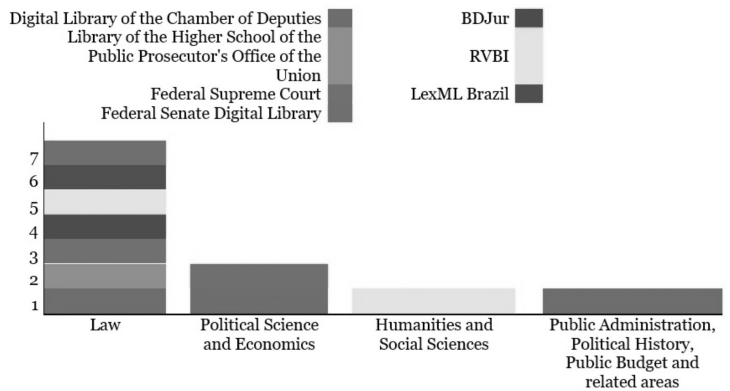


Figure 2. Areas of knowledge of the digital databases in this research. Source: Author.

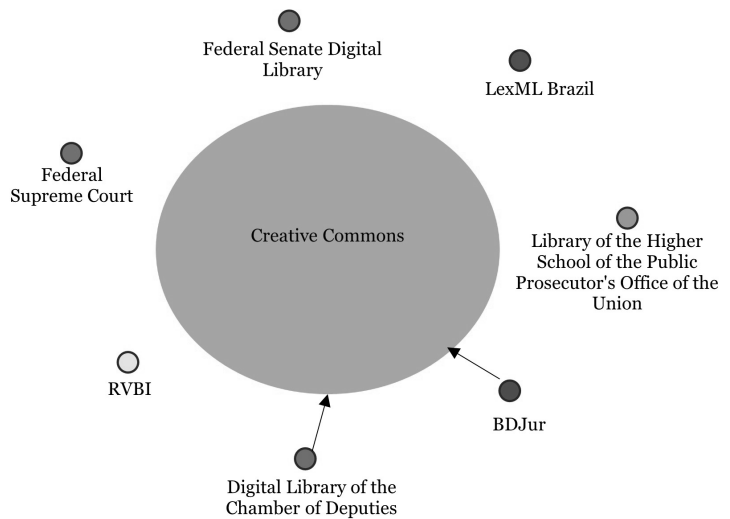


Figure 3. Licensing and licenses for the use of the digital databases in this research. Source: Author.

The investigation into the licensing of the digital databases revealed that BDJur—Superior Court of Justice and the Digital Library of the Chamber of Deputies employ Creative Commons licenses, whereas the remaining databases lack explicit information regarding their licensing terms (Figure 3).

The results indicate that information policies and practices vary between the different digital databases. Some demonstrate a comprehensive approach, with explicit policies and practices in areas such as indexing, privacy, information security, and digital preservation. In contrast, others have explicit policies, mainly related to access control and copyright (Figure 4).

5. DISCUSSION

The diversity of information policies identified underscores the urgent necessity for enhanced clarity and transparency in the governance of information within legal databases. This variability indicates the necessity for a more standardized methodology for the formulation and dissemination of information policies within the country's legal databases. Furthermore, it emphasizes the necessity of clearly defining and disseminating these policies as a means of safeguarding rights and demonstrating accountability. The absence of transparent information regarding the utilization of licensing policies employed by legal databases may result in ambiguity surrounding the permissions for data usage and sharing. This could potentially limit the scope and impact of legal research. It is thus incumbent upon the custodians of these databases to accord due attention to the pivotal role of information policies in facilitating effective data sharing and research, thereby contributing to the dissemination of open science knowledge in the legal domain.

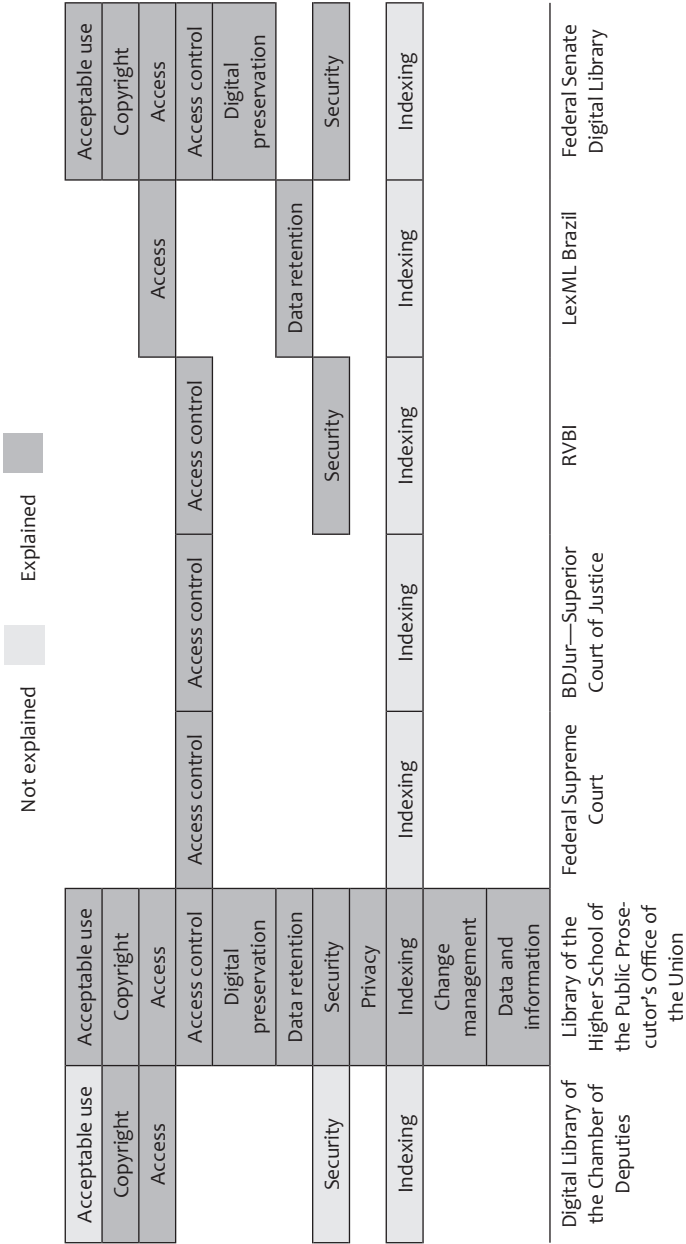


Figure 4. Information policies and practices in the digital databases of this research. Source: Author.

It is acknowledged that the research is constrained by certain limitations, either due to its exploratory nature or the analysis of a limited number of databases. This approach was selected in view of the scope of the project to which the research is linked, with these limitations viewed as potential avenues for future investigation.

The overarching objective of this research project was successfully achieved through the attainment of the project's specific objectives. The literature review facilitated the identification of the concept of information policy, particularly in the context of this research. Objective (b), which involved mapping the principal databases in the field of law based on the recognition of their maintaining institutions, was also met. For the purposes of this research, seven of these databases were analyzed. Ultimately, the preceding two sections enabled the fulfillment of objective (c), namely the delineation of the constituent elements of the information policies observed in the databases subjected to analysis in the course of this research. The policies of the Library of the Higher School of the Public Prosecutor's Office of the Union were found to be the most comprehensive, with those of the Federal Senate Digital Library representing a close second. The review of information policies in Brazilian law databases reveals a notable absence of this crucial instrument for regulating access, use, organization, and administration of these sources of information. The results also indicate a gap that can be addressed by the teams responsible for maintaining these databases, underscoring the importance of developing a comprehensive normative instrument for the database that will be created as part of the research project to which this research is linked. One of the limitations of this study is the analysis of a sample selected for this research. This limitation

could be addressed by evaluating other relevant databases. Furthermore, future research could include proposing an information policy model for national databases, as well as other more in-depth analyses of the policies identified in this research.

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