

Recognition of Foreign Native-digital Diplomas: A Study of Brazilian and Portuguese Universities

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ABSTRACT

With the aim of analyzing the process of recognizing foreign born-digital diplomas at the University of Coimbra, an exploratory and documentary study was carried out, using a questionnaire to collect data, as well as a documentary study of the legal and regulatory provisions on digital educational diplomas in Brazil and Portugal. The theoretical framework presents discussions on Document Authenticity, Diplomatic and Digital Diplomatic. We conclude that the continuation of this research will be essential to gain an understanding of the sociotechnical practices of recognition of foreign native-digital diplomas across university doctorate and certification divisions, to better inform regulations and technological development.

INTRODUCTION

The digital transformations that have taken place as a result of technological innovations or disruptions have, among other factors, changed the way certification documents are produced, impacting on their management, preservation and access and raising doubts about the maintenance of authenticity, source of Provenance and legal security. In this universe, digital documents are often used for various purposes, such as digital diplomas conferring degrees (bachelor's, master's and doctorate), produced in different countries, such as Brazil (Latin America) and Portugal (Europe).

In the Brazilian context, Decree-Law nº 66/2018, defines Diploma as “the document issued by a higher education institution, which titles an academic qualification awarded by it.” (art. 3). MEC Ordinance nº 554, of March 11, 2019, of the Brazilian Ministry of Education, defines a digital diploma as: “A diploma whose existence, issuance and storage are entirely digital, and whose legal validity is presumed through

signature with digital certification and time stamp in the Brazilian Public Key Infrastructure - ICP-Brazil, in accordance with the parameters of the Brazilian Digital Signature Standard - PBAD and the use of the other devices established in this Ordinance.” (art. 2)

Considering that the Diploma is an archivistic document, and that in this research the Digital Diploma is a digital archival document, it is relevant to point out that according to the National Council of Archives of Brazil (CONARQ), more specifically in Resolution nº. 51/2023, an archival document is a “document produced or received in the course of a practical activity, as an instrument or result of that activity, and retained for action or reference.” (p. 8). A digital document, on the other hand, is defined as information recorded and coded using binary digits, which can be accessed and interpreted using a computer system. The digital archivistic document, in turn, is “the digital document recognized and treated as an archivistic document.” (Resolution no. 51, 2023, p. 8). In other words, it is the document that meets the requirements inherent to an archival document, being produced, processed, accessed and interpreted by means of a computer system.

Interest in the issue in question arose because the researcher had a Digital Diploma of Higher Education, issued in Brazil, and was unaware of how to go about getting it recognized in Portugal, given the fact that, generally speaking, in order to be valid in the European Union, a document issued outside the European area needs to bear the seal or stamp commonly known as the *Haia Apostille*. With this information, the literature review of the research will be presented in the next section.

LITERATURE REVIEW

Contributions of Diplomatics and Documentoscopy to Document Authenticity Studies

The 'vulgarization' of digital documents and the need for studies aimed at analyzing their authenticity have given rise to research aimed at Diplomatic Analysis and Documentoscopy Analysis of digital documents. These studies were initiated by Luciana Duranti in the United States and Canada, who published a five-part collection entitled: *Diplomatics: New Uses for an Old Science*, in which she discusses aspects related to the application of Diplomatics to digital documents, from their production to their destination. Duranti's work starts with the InterPARES Project, in 1997. In it, 22 case studies were carried out on electronic systems, using diplomatic analysis as the main methodology, through the evaluation of physical form, stable content, organic relationship, administrative context, etc.

The Diplomatic, also known as the “science of diplomas”, a word that originates from the Latin (*diplous*) and means any type of “writing folded in two”, is a science that Archivology and other areas of knowledge use to support their studies related to documentary authenticity, whether in terms of support or content.

According to Bellotto (2006), Diplomatics as a documentary science was born in the midst of disputes over territories between religious orders in the 17th century, in response to the need to verify the authenticity/falsity of diplomas from the Middle Ages. For Duranti (1998), Diplomatics is the study of the document, its analysis, genesis, construction and function, its relationship with the facts represented in it and its creators.

Documentoscopy, in turn, is a forensic science, part of criminalistics, which aims to analyze documents to verify their authenticity and integrity, and in the event of inauthenticity, to identify their authorship (Mendes, 2010). Criminalistics is an area dedicated exclusively to the examination of elements/instruments related to crimes committed, extrinsic to the human body, in order to support justice and the police in identifying and punishing criminals (Büchs, 2019).

It is at the heart of this issue that the concept of Documentary Chain of Custody arises, which according to Gava and Flores (2020): “It can be understood as the environment in which the life cycle of documents

passes, and it is necessary that archival principles and functions are applied appropriately to the documentation in custody.” (p. 88)

The issues raised by the possibility of traceability from information on the practices at the origin of the document, in addition to maintaining chains of custody within the same regulatory framework (applicable legislation, institutional standards and procedures, for example for academic activities and their evaluations), pose different challenges when interoperability between international contexts is sought. In this sense, we need to understand what can be involved in this interoperability? Does it involve the different requirements of organizational standards and practices?

Recognition of Diplomas in Portugal and Brazil

In Portugal, the recognition of academic degrees and diplomas awarded by foreign higher education institutions is governed by Decree-Law n° 66/2018 of August 16, which “approves the legal regime for the recognition of academic degrees and higher education diplomas awarded by foreign higher education institutions” (art. 1), and by Ordinance n° 43/2020 of February 14, which “proceeds with the first amendment to Ordinance n° 33/2019 of January 25 of 2019”, which regulates aspects of the process for the recognition of academic degrees and diplomas, awarded by foreign Higher Education Institutions”. (art. 1).

The entire process must be carried out by filling in an online form, which is available on the Platform for the Recognition of Foreign Higher Education Degrees and Diplomas and Conversion of Final Classification (RECON), linked to the Directorate General for Higher Education (DGES). On the form in question, you can choose the type of recognition (automatic, level or specific), the course to be recognized, attach the requested documents and obtain information on payment. The types of recognition are described in Article 3 of Decree-Law n° 66/2018.

In Brazil, the Education System is governed by the Law of Guidelines and Bases of Education (LDB), Law n° 9394, of December 20, 1996, which establishes the guidelines and bases of national education. Article 48 of Law 9394 (1996) deals with the process of revalidation for undergraduate courses and recognition for postgraduate courses awarded by foreign higher education institutions: “§2° - Undergraduate diplomas issued by foreign universities will be revalidated by public universities that have courses of the same level and area or equivalent, respecting international agreements of reciprocity or equivalence. §Paragraph 3 - Master's and Doctorate degrees issued by foreign universities may only be recognized by universities that have recognized and evaluated postgraduate courses in the same area of knowledge and at an equivalent or higher level.” (art. 48).

To apply for the revalidation or recognition of diplomas in Brazil, the entire process must be carried out on the Carolina Bori Platform, a tool created by the Ministry of Education, through the Higher Education Secretariat (SESu) and the Coordination for the Improvement of Higher Education Personnel (CAPES), to manage and control processes for the Revalidation and Recognition of foreign Diplomas in Brazil. In this sense, the applicant can choose the institution from which to apply for diploma revalidation for undergraduate courses and/or recognition of Master's or Doctorate *stricto sensu* diplomas. In the next section, the methodology of the research will be presented.

METHODOLOGY

The method used in this research is an exploratory case study, with a bibliographical component, both exploratory and descriptive. Exploratory research, according to Gil (2007), is carried out when the chosen topic is little explored, and it is difficult to formulate and operationalize hypotheses. Descriptive research, on the other hand, aims to describe the characteristics of a population, phenomenon or experience for the study carried out (Gil, 2007). The approach is qualitative.

In order to fulfill the first specific objective, a bibliographical survey was carried out, consisting of published scientific works, including books, national and international scientific articles, and other sources of information. The searches were carried out on the Web of Science, CAPES Portal and SciELO.

Interview data was collected by sending six open-ended questions by email on May 22, 2023, which were returned on June 7, 2023. The initial proposal was to conduct a face-to-face interview with the civil servant responsible for recognizing foreign degrees and diplomas in the Doctorate and Certification Division (DDC), but due to the high demand for activities in the sector, it was not possible to do this in person. In the next section we will discuss the findings considering legal, regulatory, documental and interview data.

DISCUSSION

To make it easier to understand the results obtained from the interview, categories were created to perform content analysis on the answers. The analysis of the answers' contributions in each category will be made immediately after their presentation. The letter A indicates the summary of answers contribution.

The first category, **“a) Recognition of a foreign digital-native diploma at UC”**, collects aspects mentioned in answers to questions 1 and 2, as shown below. The first question asked: how is the recognition and subsequent degree equivalence of a foreign digital-native diploma carried out at the University of Coimbra? Are there any changes to the recognition stages? What are the implications of the “native-digital” nature of the diploma?

A: It should be noted, first, that according to Decree-Law 66/2018 of August 16, the correct terminology is recognition of a foreign degree and diploma, the term “degree equivalence”, used under the previous legislation Decree-Law 283/83 of June 21, having fallen into disuse. According to the procedures in force at the University of Coimbra for digital documents, and as explained on the information page for recognition requests documents with a qualified digital signature are exempt from the need to present the Haia Apostille or authentication by the Embassy/Consulate. A document with a qualified digital signature is characterized by having a set of metadata, gathered in a digital certificate, which can be verified by pdf reading software. Since it is possible to access various details on this certificate, in situations where the digital signature present is considered valid, the document is accepted for the purposes of the application, and no additional forms of authentication are required. Documents with digital signatures that require verification via external websites or whose recognition of authenticity presupposes verification/comparison with documents on online platforms are not, according to the procedures in force, considered to be documents with a qualified digital signature. In these cases, the document must be materialized and subsequently apostilled/authenticated. In exceptional situations, the University of Coimbra may contact the foreign higher education institution (HEI) to confirm that the document is genuine, issued to the applicant in question, or that the verification platform is official and in use by the institution.

In question 2, we asked what documents or methods are being used in the case of “native-digital” diplomas and, if they differ, why are these documents required?

A: The interview answer to this question started in the context of the previous one.

The process of recognizing foreign degrees and diplomas requires a set of documents to be requested. In addition to the diploma, the academic transcript and the syllabus are required for the type of level recognition and specific recognition and, although the table available on the UC information page states that the syllabus does not need to be apostilled, in practice, without apostilling the process does not move forward. This raises the question: should these documents also contain a qualified digital signature? How would this be possible? In Brazil, for example, there are universities where the qualified digital signature can be inserted into a non-digital diploma, but subject programs and transcripts, although also non-digital

documents, have an alphanumeric code and an electronic address that reports to the institution's digital document validator to verify their authenticity.

Even so, according to the interviewee's response, this method of verification is rarely adopted by the UC. In this sense, would it be necessary to materialize these documents and apostille them? Wouldn't the materialization process corrupt the legal validity characteristics of the native-digital document, since the materialization would be a copy of the original document, which was created and exists only in digital form? In this sense, the Brazilian reality indicated in Ordinance nº 554, states that the digital diploma: "It has its existence, its issuance and its storage entirely in the digital environment, and whose legal validity is presumed through the signature with digital certification and time stamp in the Brazilian Public Key Infrastructure - ICP-Brazil, according to the parameters of the Brazilian Standard of Digital Signatures - PBAD and the use of the other devices set forth in this Ordinance." (Brazil, 2019, art. 2)

Still with regard to the materialization of the Digital Diploma, it is understood that this practice would be contrary to what is defined in Ordinance 554, by providing that: "The digital diploma must have its preservation ensured by the HEIs through procedures and technologies that allow verifying, at any time, its legal validity throughout the national territory, permanently guaranteeing its legality, authenticity, integrity, reliability, availability, traceability, non-retractability, privacy and interoperability." (Brazil, 2019, art. 4).

In this context, what prevents the UC from comparing the document, using its validation code and verifying its authenticity on the portal of the Institution in which the document was produced? Does this occur with documents that do not have a qualified digital signature?

The second category "**b) Professional qualification for the recognition of the foreign native-digital diploma at UC**", includes aspects from questions 3 and 6. In question number 3, it was asked if the people responsible for these processes need any knowledge? Under what circumstances? How are they involved?

A: The team responsible for foreign degree recognitions at the University of Coimbra, is familiar with the steps necessary for the recognition of a document with a qualified digital signature, according to internal procedures. Any type of document that is not identified as such must follow the normal procedures, being equivalent to a paper document. With question number 6, we sought to investigate whether the civil servant would recommend changes in the process of recognition or equivalence of degree, of a foreign diploma native in the University of Coimbra? For what reasons?

A: The University of Coimbra, namely at the level of the Doctoral and Certification Division (DDC), has been making efforts towards a broad dematerialization of recognition requests. For this reason, it is possible to instruct a request for purely digital recognition, provided that the necessary procedural conditions are safeguarded. Given the vast documentary and procedural heterogeneity that each HEI and its country adopts, each case is analyzed individually, and, in case of doubt, a statement is prepared, with documentary evidence of the contacts made with the HEI, for subsequent analysis and Superior consideration. DDC, at the level of its team, regularly promotes the exchange of experiences in terms of digital documents, along with a contact database and online verification/authentication platforms, in order to expedite requests.

The interviewee does not present a legal basis, nor does it refer to any official document that can be used to administratively and legally support the practices carried out. He mentions in answering number 6, that UC is making efforts to dematerialize the process of recognition of foreign degrees and diplomas but requires that those interested in obtaining such recognition materialize a digital diploma, if they do not have a qualified digital signature. Once again, the question persists: if they do the verification/authentication online, why don't they consider other elements of authenticity of the document, other than just the qualified digital signature? Can the fact of having a qualified digital signature be considered an absolute element of guarantee of documentary authenticity, from the point of view of support and content? These are questions for reflection.

In the third category "**c) Standards and/or legislation for the recognition of foreign native-digital diplomas at UC**", question number 4 is inserted. In this question, it was asked if there is a standard or legislation used to validate the native-digital diplomas obtained outside the Bologna agreement (for example, from Brazil)? Is there any difference between diplomas issued in the Bologna area?

A: Documents issued in European Union countries do not require, at the UC, a Haia Apostille or authentication by a Consulate/Embassy, as described on the UC degree recognition information page. Documents issued by countries outside the European Union, if they do not have a qualified digital signature, require one of the previously mentioned forms of authentication. Even so, in the case of digital documents, which do not have a qualified digital signature, the IES is contacted to verify the document/authentication platform. Our respondent does not mention any legal and normative provision that regulates the recognition of native-digital higher education diplomas issued abroad. On the other hand, it states that any native-digital document that does not have a qualified digital signature must follow the procedures that are adopted for paper documents (authentication and apostille). After all, are there guidelines that guide this process? What are they? Who defined them?

The fourth category "**d) Implications for the Information Systems/documentation at UC**", includes question number 5. In question number 5, it was asked what implications the adoption of native-digital diplomas have for the information/documentation systems in the UC? Did they generate adaptation needs in the IS?

A: The adoption of digital natural diplomas did not imply any change in the IS of the UC. In situations where there is a need to contact the IES to verify the authenticity of a digital document, it is put to the "Superior Authority" to proceed with the instruction of the request, safeguarding all contact and response steps, in order to guarantee the veracity/authenticity of the document in question.

In view of this position, it is noticeable that if the UC is unable to establish contact with the HEI that originated the document to validate its authenticity, the interested party (that made the request) will have no alternative but to authenticate the signatures on the physical document and apostille it with a consulate. Next, we summarize our research considerations.

CONCLUSION

From the analysis of the case study, it was not understandable how the organizational practices of recognition of foreign native-digital diplomas in the UC can take place, since, sometimes, the answers contradict each other, and the publicly available information about such processes does not clearly present how to use such digital-native documents.

Our analysis of the answers and documentation available did not allow us to understand concretely what steps are required for the recognition of foreign native-digital diplomas at the UC.

Based on this case study, and with the information collected about such processes we are left with more questions: How can we obtain a recognition of a digital-native diploma? In this case, how would it be possible to make it valid in Portugal? What is required, what are the criteria adopted? What implications does this recognition practices have that limits what can be done with such documents? These are some of the questions to which we have not been able to get concrete answers.

It is believed that the continued involvement in further studying the organizational practices involving certification and recognition of digital-native documents, will be fundamental for a greater knowledge of the information systems that permeate the Doctoral and Certification Division of universities, as well as finding answers to these that may point to other similar concerns with other organizations.

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REFERENCES

- Bellotto, H. L. (2006). *Arquivos permanentes: tratamento documental*. 4. ed. Editora FGV.
- Decreto-Lei nº 66/2018 da Presidência do Conselho de Ministros: Aprova o regime jurídico de reconhecimento de graus académicos e diplomas de ensino superior atribuídos por instituições de ensino superior estrangeiras. (2018). Diário da República, nº 157, Série I, de 16-08-2018. <https://diariodarepublica.pt/dr/detalhe/decreto-lei/66-2018-116068880>
- Duranti, L. Diplomatics: New Uses for an Old Science. (1998). *Archivaria*, 28, Summer, 7-27. <https://archivaria.ca/index.php/archivaria/article/view/11567/12513>
- Gil, A. C. (2007). *Como elaborar projetos de pesquisa*. 4. ed. Atlas.
- Marconi, M., & Lakatos, E. (2003). *Fundamentos de Metodologia Científica*. 5. ed. Atlas.
- Pacheco, A. (2017). Em busca da compreensão da informação digital sob uma perspectiva da Diplomática e da Ciência da Informação, *Páginas a&b*. s.3, p. 130-143. <https://files.core.ac.uk/pdf/645/201297220.pdf>
- Portaria nº 43/2020 do Ministério da Ciência, Tecnologia e Ensino Superior: Altera a Portaria nº 33/2019, de 25 de janeiro, que regula aspetos da tramitação procedimental do reconhecimento de graus académicos e diplomas atribuídos por instituições de ensino superior estrangeiras. (2020). Diário da República, nº 32, Série I, de 14-02-2020. <https://diariodarepublica.pt/dr/detalhe/portaria/43-2020-129208007>
- Portaria nº 330/2018 do Ministério da Educação do Brasil: Dispõe sobre a emissão de diplomas em formato digital nas instituições de ensino superior pertencentes ao sistema federal de ensino. (2018). Diário Oficial da União, nº 66, Seção 1, de 05-04-2018. http://portal.mec.gov.br/diplomadigital/arquivos/portaria_MEC_330_5.4.2018.pdf
- Portaria nº 554/2018 do Ministério da Educação do Brasil: Dispõe sobre a emissão e o registro de diploma de graduação, por meio digital, pelas Instituições de Ensino Superior - IES pertencentes ao Sistema Federal de Ensino. (2019). Diário Oficial da União, nº 48, Seção I, de 11-03-2019. https://www.in.gov.br/materia/-/asset_publisher/Kujrw0TZC2Mb/content/id/66544171/do1-2019-03-12-portaria-n-554-de-11-de-marco-de-2019-66543842
- Portaria nº 1.095/2018 do Ministério da Educação do Brasil: Dispõe sobre a expedição e o registro de diplomas de cursos superiores de graduação no âmbito do sistema federal de ensino. (2018). Diário Oficial da União, nº 207, Seção I, de 25-10-2018. https://www.in.gov.br/materia/-/asset_publisher/Kujrw0TZC2Mb/content/id/47330359/do1-2018-10-26-portaria-no-1-095-de-25-de-outubro-de-2018-47330016
- Richardson, R. J. (2017). *Pesquisa Social: métodos e técnicas*. 4.ed. Atlas.
- Roque, L. G. (2004). Contribuição para uma Engenharia do Contexto. [Tese de Doutorado – Faculdade de Engenharia Informática da Universidade de Coimbra]. Repositório científico da Universidade de Coimbra. <http://hdl.handle.net/10316/1743>

Yin, R. (2005). *Estudo de Caso: planejamento e Métodos*. Bookman.