

# Digital Humanities: The Case Study of the National Library in Spain

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## INTRODUCTION

Looking at topics of Digital Humanities (DH) and the current practice of the National Library of Spain (NLS, Biblioteca Nacional de España (BNE)), this chapter explores NLS as the shared infrastructure DH needs to achieve the most attractive, creative results. Researchers need downloadable and processable data as collections. This is a big challenge for NLS, which connects policy and daily practice. DH tasks, responsibilities and roles embrace infrastructures and interoperability in an environment where national licensing work is still evolving, a national hosting strategy is pending to be resolved in terms of subject-specific and interdisciplinary VREs, and legal frameworks should consider interoperability of the proposals made by NLS. Funding to improve and sustain pre-existing solutions is hard to come by also (Van Wyk, 2018). But the infrastructure to support open data is available and take the form of a trusted national repository platform where the formulation of data intensive research and the professionalization of data stewardship take place. Good research requires good data stewardship. This is why, within NLS, experts work together to put research data management on the DH agenda that ask for mutual national cooperation in Spain.

In this vision, the chapter seeks to answer the following research questions:

- Why it's possible to conduct research in humanities with software at the National Library of Spain (NLS).
- How the scholar engaged in humanities can easily incorporate data as it come from NLS pipelines for shared understanding of their research and disciplinary needs.
- What are the ongoing collaboration projects in Digital Humanities (DH) involving NLS and engaging computer science specialists with humanities research and digital libraries.
- How platforms of social participation inside the NLS ecosystem, provide an experimental test-bed for developing, exploring and exploiting DH infrastructure and content in ways that may benefit readers.

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The chapter starts with a description of the digital infrastructure to support humanities available in the National Library of Spain (NLS) landscape. After the initial report of the technology standards to model and represent humanities documents (transcription, geo-referencing, identification or tagging, enrichment of the bibliographic catalogue and authorities), the first question of this paper is answered by clearly proving the pervasiveness of computers and research software in scholarly work at the NLS (Gómez-Pérez *et al.*, 2013) (Hallo *et al.*, 2016). Digital humanities scholars have at their disposal digital scholar editions and models of humanities documents; in this context, best known real cases are exposed.

To address the second question of the chapter, the amount of linked-data produced (or digitized), stored, explored, and analyzed in the NLS DH projects, and the possibilities and the limitations of digital access to textual cultural heritage (Sánchez-Nogales, 2019a) (Bosch *et al.*, 2014) in NLS need to be assessed. Given the high volume of information provided by the institution (NLS), we adopted methods to profit from the tremendous opportunities for humanities researchers to dig relevant data from annual and special reports submitted by NLS to National and International Organizations. The study the NLS fluid relations between policy and practice associated with the research groups involved in DH, permit to compile a descriptive summary of the results of these individual studies in the current scientific literature. This estimate was cross-checked with data submitted from NLS to the CENL (Conference of European National Librarians). We also perform content analyses of diverse information sources (including DSHjournal, and DH Congresses and conferences). A fair amount of DH work is made by using datos.bne.es data from Web Semantic and Linked Open Data communities, interest groups and specialists (Rico *et al.*, 2019). This paper presents an analysis of the Linked and Open Data (LOD) and its underlying metadata schema created and presented through meaningful DH interfaces in the NLS (Tallerås, 2017)(Santos *et al.*, 2015).

Digital humanities projects, which are the core focus of this paper, occupy their rightful place at the National Library of Spain (NLS) because they are suitable for mediating the different tasks related to the processes of drawing up and consulting its collections of data. This answers the third question. DH projects at NLS include the Bibliography of the Spanish Women Writers (BIESES), the Spanish Golden Century Bibliography (BIDISO), the Digital Humanities BNE Lab projects, the Transhispanic Dialogues Digital Library (Dialogyca), the dictionary of the Spanish Royal Academy of Language (RAE), the Rare and Forgotten Author Digital Library (Mnemosine) (Romero López and Bueren Gómez-Acebo, 2018), the Ovidiana Digital Library (Ovidius Pictus), the Digital History of Spain, “Manos Teatrales: An Experiment in Cyber-Paleography”, the music and musicology collection reutilization (López Lorenzo and Delgado Sánchez, 2019), the digital literary edition (eLITE-CM), the Digital Library on the Spanish writer on art “J.A. Ceán Bermúdez”, and the computer assisted transcription of handwritten texts project (Toselli *et al.*, 2018). This crossing of cultural, technological, political and ideological borders stride towards the cooperation between a community of experts in digital transformation and the research community which is truly transnational and inclusive (Table 1).

To answer question four, the paper frequently employs an analysis of social media to explore to what extent they can help us to identify new interpretative approaches to what is possibly NLS greatest mission.

## LITERATURE REVIEW

In the literature, Digital Humanities (DH) has a primary purpose in the need to share computing facilities with those in the humanities research communities who do not have. This refers to create a collaborative space that welcomes those humanists interested to engage with technology in line for a free, open and

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