# Chapter 15 An Adaptative User Interface for Genealogical Document Transcription

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#### ABSTRACT

Lately, genealogy has become a hobby not only in the United States, UK or France but also in many other countries where it is now widespread. The main sources of information for genealogists are different kinds of genealogical documents (census, church vital records, wills, ...). In fact, and specifically in Spain, several projects to digitalize heritage and genealogical documentation have developed recently, in order to improve its access and to preserve its conservation state. Such digital information is useful, but it would be even more useful to have its transcription in a searchable support like databases or web repositories. This chapter analyses the opportunities and characteristics of such transcription projects and describes a transcription user interface tool. This proposal allows for easy, intuitive and fast design of a user interface to transcript genealogical documentation, in agreement with the contents of each different kind of genealogical documents. Given an XML Schema (XSD) describing a genealogical document structure and contents, this tool allows the user to adapt and personalize a user interface to transcribe the document contents, while obtaining an XML file to be stored in some database management system or to be shared among genealogists. At any moment during the transcription process, user interface may be adapted to the user requirements and to the document characteristics, so, this adaption is dynamic, intuitive and user friendly.

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#### INTRODUCTION

Genealogy research consists on trying to identify, to localize and to obtain information about our ancestors (and descendants). The first step of this research is to collect information by means of interviews to grandparent and older relatives, and also by looking through the family documentation and memorabilia at home.

But, when the curiosity goes beyond living people, genealogists need to access administrative, civil, religious and ultimately, heritage documentation centres, to find genealogical information. Therefore, the genealogy research goes on by visiting such documentation centres. In fact, several centres must be visited to find different kinds of information or to find information about different ancestors. This may be an inconvenient for genealogist, since this research is time consuming and sometimes involves expensive travel. Moreover, heritage documentation kept on these centres is fragile and must be handled with care. And sometimes, it may have a restricted access even to specialists.

Documentation centres and genealogical associations are sensitive to these access difficulties and preservation needs for their documents. So, they have been starting document preservation and diffusion projects to allow wider and easier access to their documentation. Such projects include strategies to digitalize documentation and to put digital images on the webpage of the centre. In this way, they fulfil preservation of original documentation and they make a broad diffusion of the archive catalogue.

Digitalized documentation is useful and facilitates genealogy research, but it will be more useful to have a direct access to the document contents. The ultimate wish of genealogists, historians and, in general, any person who makes a heritage investigation is to have all information of heritage documentation extracted or transcribed in a digital support accessible online and with powerful and flexible query functionalities. This is a long term, high cost and not easily reachable project.

However, there are some initiatives to provide computer-supported tools to facilitate the transcription task (Jameson et al., 2008; Pedro, n.d.). There are initiatives on handwriting recognition and digital library research to automatically transcribe heritage information (Gamera, n.d.; OCROPUS, n.d.). Moreover, genealogical and documentation centres have started projects to manually transcribe genealogical documents with the collaboration of volunteers (genealogist, students, retired people, ...). In this case, information systems, software engineering and database research may provide user-friendly support tools and a clear methodology/guidelines of how to proceed to obtain high quality transcriptions.

In this chapter, we follow this software engineering approach to propose a user adaptative interface tool to improve the manual transcription task. The objective of our genealogical transcription user interface tool is to allow transcribers to build, in an easy, intuitive and fast way, a user interface to transcribe the content of different kinds of genealogical documents. The generated interface may be adapted to the transcription process characteristics, to the user preferences and to the document structure itself. The flexibility of the tool, allows changes in its configuration at any moment of the transcription process. The dataentry interface may be readapted at any moment according to changes on the structure or contents of the document or user preferences.

The chapter begins with a background section, in which we explain in more detail the need of computer-based tools, to support genealogical transcription. And we also define basic concepts as well as introducing the technology we will use. Afterwards, we show the global architecture of the tool and we describe in more detail all its components. To end with the tool description, we summarize the main contributions or benefits we expect of our tool, supporting the transcription 17 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage:

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