

Research Title:

Design, development and management of a computational philological infrastructure for the production, testing and publication of digital documents on the web.

Plan of the research:

The fundamental scope of this research is to encourage studies and the spread of data, information and scientific works, by means of technological support, related to the concept of “migration” in cultural and linguistic areas.

Requirements, design, implementation and maintenance of the technological components which will be integrated in the existing Pinakes Text platform will be provided. These components will allow users to make linguistic and philological analysis of texts, made available by some institutes of the CNR humanities Department (ISPF, ILIESI, ISGI).

The infrastructure will be orientated towards a collaborative computational philology based on the World Wide Web Model. The system will be realized with Java Enterprise, a robust and proven technology. Cutting edge frameworks and methodologies will be used, like SEAM, JAVA SERVER FACES, LUCENE, HIBERNATE and others. Development aims to the *text processing* by means of all formalisms and languages of Web2.0 and Semantic Web, like ontology and the structured representations of documents (HTML, TEI, XML, JSON, RDF, OWL).

It will be possible to create digital archives, conveniently organised in an accessible and reachable remote repository. It will offer scholars a simple and immediate search for their studies and digital images management (manuscripts, printed books.. etc). The search engine will be able to retrieve information also from non textual documents such as video and audio files. The Document management system will include lexicographical techniques for the construction of computerised vocabulary and dictionaries, searches of indexes with the production of concordances and synchronization of parallel texts. It will be also possible to lemmatise, annotate, manage critical apparatuses, notes and variants.

- Support the production of digital content in the system
- Development of consultation and query systems
- Development of Information Retrieval System GUI (Graphical User Interface)