

## Multimedia Annotation of Classical Texts: What Do We Need?

The imminent creation of the Digital Latin Library under the auspices of the SCS and other institutions and based at the University of Oklahoma raises two of the key problems of digital annotation, selection and visual design. With theoretically limitless space, what resources should scholars provide for readers, and how are they to be presented? Many innovative approaches are currently being tried, from treebanking, to hyper-linked vocabulary, automatic grammatical analysis tools, video read-throughs, crowd-sourced commentary, and text visualization. This paper argues for the importance of two specific elements that have so far not been the focus either of established projects like Perseus Digital Library, or of other emerging modes of digital edition of classical texts: author-specific lexica, and direct linking by humans to grammatical reference works. These are elements of traditional Latin school editions that can be usefully re-imagined in a digital environment, and will in some ways work better there than they do in books.

Author-specific lexica have the advantage of giving the reader a spectrum of definitions that are known to apply to the passages he or she is reading, and much reduce the frustration and errors caused by the over-richness of a large dictionary, and the poverty of an short definition that does not contain the contextually appropriate meaning. For commonly taught school-authors there is an abundance of such material available in most modern European languages, waiting to be properly digitized. By editing existing definition data and marrying it with fully parsed texts such as those produced by the Laboratoire d'Analyse Statistique des Langues Anciennes (LASLA), we could have the further advantage creating author-specific lexica that accurately tabulate word frequencies, and help readers prioritize vocabulary acquisition. But

even without that, accurate running lists can be created that would substantially ease the reading process.

Online grammars of Latin and Greek exist, but are often difficult to search and to read. One of the key things that intermediate and even advanced readers of a Latin or Greek texts need to know, when confronted with an unusual construction, is what rule or principle the passage in question exemplifies. The authors of print textbooks will frequently give a specific reference to a chapter in a grammar book, both to elucidate the passage and to stimulate the student to learn the relevant rule. If we had truly attractive and navigable grammars of Greek and Latin (ideally several of each), they could be linked directly to problematic passages quite unobtrusively, but with the advantage of immediate consultation via a single click. This kind of simple annotation, with a bare letter abbreviating the name of the grammar and the chapter number, would make the process of annotation simpler than it can usually be in books, since the annotator would often be freed of the need to re-explain the principle involved. This kind of work obviously cannot be done by machine, but treebanking and other forms of syntactical tagging could speed the process.

A database re-edited author-specific dictionaries, and a series of attractively presented Latin and Greek grammars: these are not impossible dreams, because a great deal of such material exists in the public domain. The challenge will be to extract it accurately from often poor optical character recognition that lies behind the deceptively smooth surface of a pdf., and then to provide it in a pleasing interface, like that of Logeion, in the case of lexical resources. The best visual design of grammars in a digital environment is a problem still to be worked out.

## Bibliography

Digital Latin Library: <http://apaclassics.org/publications-and-research/digital-latin-library-project>

Perseus: <http://www.perseus.tufts.edu/hopper/>

LASLA: <http://www.cipl.ulg.ac.be/Lasla/>

Logeion: <http://logeion.uchicago.edu/>