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On handling geographic data of print and digital forms in academic libraries: the role of ontologies

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The last few years the availability of geographic data in various formats in academic libraries is increasing, bringing back in the spotlight issues that might not have been the focus of library related research for the past few years. Moreover the diversity of the available formats those data can be in, ranging from old-fashioned paper maps to digital maps and from satellite images to digital cartographic data, increases the complexity of the problem at hand. All these data cannot be considered anymore out of scope for the libraries since they are tightly related with the rest of information maintained by them, especially in academic settings where they can have an impact both on teaching and research.

On the other hand, the so called digital libraries initiatives have brought into the picture the wide use of ontologies and semantic models in order to facilitate the better understanding among the librarians, the users and the expanded possibilities of using the material itself. These help us to better position the use of such data in the everyday library life by cataloguing them not just as items but also linking their spatial references to the rest of library resources providing not only thematic based catalogues but also spatially enabled catalogues. In that sense both concept based taxonomies of the Geoinformatics field but also geographic based ontologies (that define geographic entities) can be combined to catalogue, archive and retrieve the necessary items.

This is the focus of the work discussed in this paper, where we try to analyze and present ontology based solutions that would allow academic libraries to combine current or future semantic based catalogues with ontologies that describe the spatial characteristics of such items. The tools to support such implementations become slowly but increasingly available and this makes its implementation more apparent for the Greek Academic Libraries of the (near) future.

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