

Exploring new ways of integrating heterogeneous spatial data and annotations

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Recent development in spatial and digital humanities have led to the use of geographic information systems (GIS) in combination with sources such as literature, historic maps and social science datasets. These combinations make innovative analyses possible across disciplines in and beyond the humanities (Zundert et al. 2011). Such developments add to the growing amounts of georeferenced data. How does this trend affect research agendas and the direction of the humanities? Is it the case, as for instance Ian Gregory stated at the Digital Humanities 2010 conference, that '[t]he challenge is to use these sources in innovative ways to shed new insights into research questions in the humanities'? If so, in which ways do such sources make a difference to humanities scholarship?

One of the aims of project 'Alfalab', a collaborative framework project of the Royal Netherlands Academy of Arts and Sciences (KNAW), is to pioneer and reflect on these new possibilities (Zundert et al. 2009). Alfalab explores the interaction between research questions, GIS tools, spatial data and infrastructures, amongst other topics. It supports the heterogeneous heuristics and data sources used in humanities research, while also creating solutions that are integrated to e-science infrastructure initiatives. This paper reports on one of Alfalabs pilot projects, the GISLab virtual research environment (VRE). It will describe its online georeferencing tool, annotation tool and onomastic digital collection, which consists of more than 2000 historic maps and 200 000 microtoponyms, in greater detail. Additionally it will explain how researchers

can annotate the collection and create their own dataset in order to pursue their research.

Furthermore the paper will focus on the different ways the collection and the annotations become part of the research process, by analysing how they are exchanged, made visible, combined and published. The paper will detail how the metadata of the collection has been made CLARIN (Common Language Resources and Technology Infrastructure) compatible and made available in the CLARIN Virtual Language Observatory. The paper also addresses the visibility of annotations via the Historic Geographic Information System of the Fryske Akademy. Third the paper will explore the possibility of combining the GISLab annotations with the annotations of the other VREs developed in Alfalabs, namely the literary-focused TextLab and the LifeLab that concentrates on life courses and census data. The resulting platform that combines these three Labs, the cross-disciplinary annotation demonstrator, is based on exchanging information using the data model of the Open Annotation Collaboration. Fourth the paper will describe the publication of actual research data using the rich internet publication (RIP) framework created for Alfalab. This RIP is a new form of publication that ties text, tools and non-linear reading of research results together. The paper will conclude with a reflection on the innovative practices developed around the use of heterogeneous spatial data and annotations, and compare them to other initiatives in historical research (for example, Kok and Dormans 2010).

References:

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