

# Think Spatial

The Center for Spatial Studies' brown-bag forum on spatial thinking

## Presents

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## How Does GIScience Support Spatio-Temporal and Thematic Information Exploration in the Humanities?

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3512 Phelps Hall



### ABSTRACT:

The wealth of information stored in large online text archives, such as Google Books, makes it difficult for information seekers to access relevant information and detect and explore hidden patterns in the data. In my talk, I illustrate how this challenge can be addressed by following a typical GIScience approach.

Bruggmann focuses on how spatio-temporal and thematic information and interconnections implicitly stored in large online text archives can be made explicit, and examines how this might help information seekers learn and gain new insight into space, time, and theme. He investigated a typical digital text archive in the humanities. Indeed, text documents in the humanities are particularly interesting to GIScience because they contain significant spatial, temporal, and thematic information, which has been mostly untapped for spatio-temporal and thematic analyses thus far. The approach he presents encompasses three stages: **(1)** the automatic retrieval of spatio-temporal and thematic information from semi-structured text documents (i.e., geographic information retrieval); **(2)** the transformation of the retrieved information and the visualization of interesting spatio-temporal and thematic structures and interconnections (i.e., spatialization); and **(3)** the user-centered design and evaluation of two web tools used to explore space, time, and theme interactively (i.e., geovisual analytics). Evaluating web tools shows that they support target users exploring the humanities from a spatio-temporal and thematic perspective and reveals the potential of applying this approach to other large online data archives to help users interactively learn about space, time, and theme.

### Bio:

André Bruggmann is a Ph.D. candidate at the GIScience Center of the Geography Department at the University of Zurich, Switzerland. He received his BSc and MSc in Geography from the University of Zurich. Bruggmann focuses on geographic information visualization and analysis and is particularly interested in geovisual analytics, spatialization, geographic information retrieval, and the digital humanities. His research is situated at the nexus of geography and the humanities, and he investigates methods to automatically retrieve, transform, and interactively visualize spatio-temporal and thematic data in large digital text archives.