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eCodicology

Algorithms for Automatic Tagging of Medieval Manuscripts

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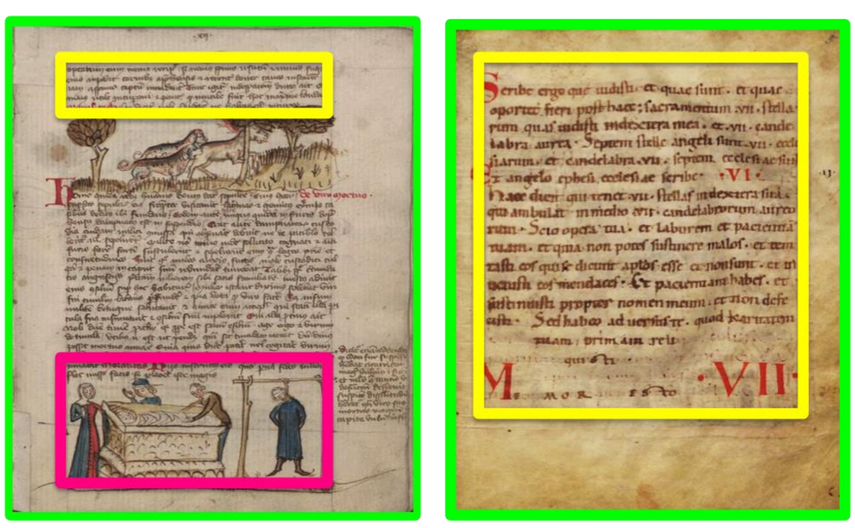
- Joint research project of Darmstadt, Trier and Karlsruhe
- Funded by the Federal Ministry of Research and Education (BMBF)
- In cooperation with DARIAH-DE (Digital Research Infrastructure for the Arts and Humanities)

Aims

- ***Automatic identification*** of macro and micro structural ***layout elements***, e.g. number of lines
- ***Statistical analysis*** of objectified, reproducible and at micro level differentiated features
- ***Visual analysis*** of hidden relationships between many groups of codices



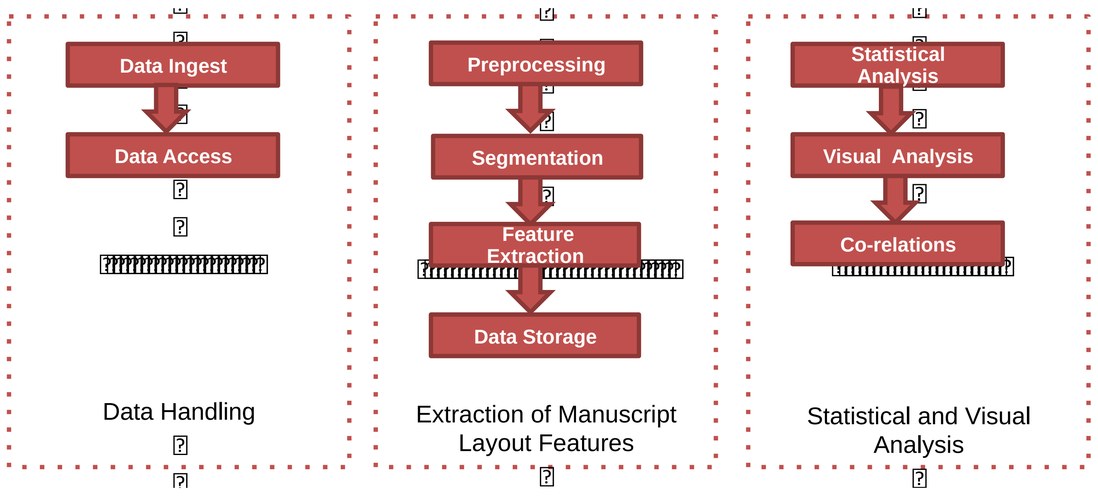
page size, *written space,* *pictorial space*

Virtual Scriptorium St. Matthias

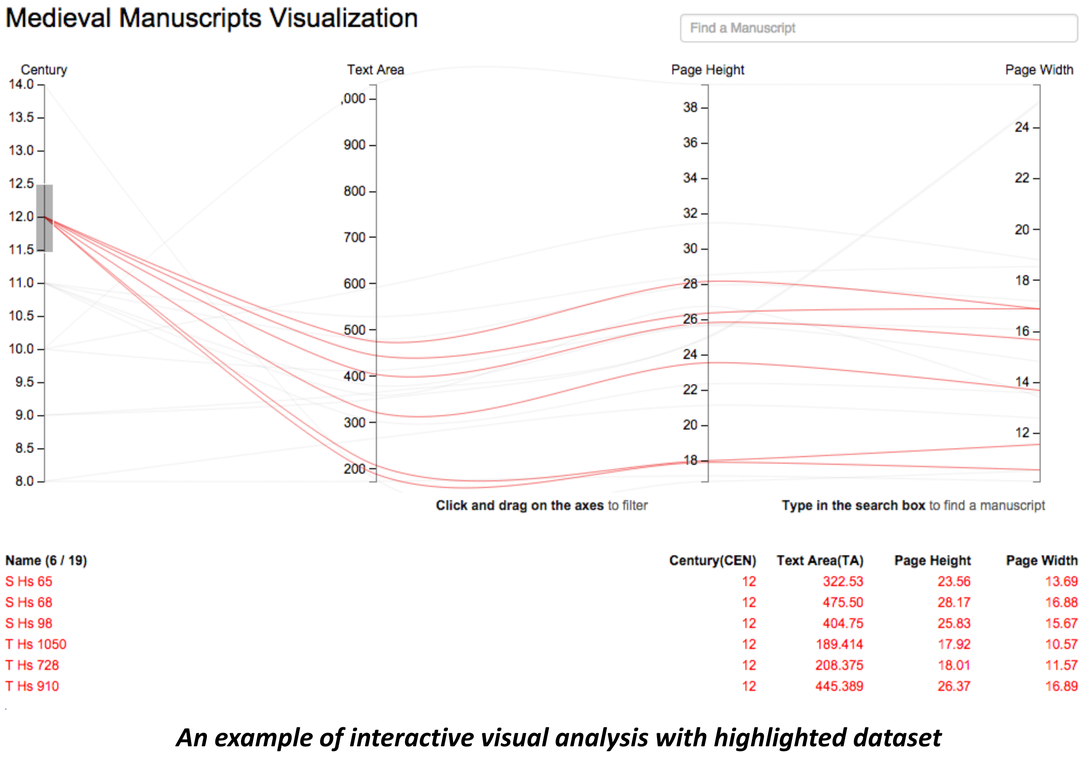
- Digital reconstruction of the library of the Benedictine abbey St. Matthias, Trier
- 440 codices (8th – 16th century)
- 170,000 digitized codex pages
- 1,000,000 files in various formats (~5 TB)
- Online available: http://stmatthias.uni-trier.de

Data Processing and Visualization

- **Data Handling:** data is managed by repository using KIT Data Manager services
- **Preprocessing** of the manuscript images: color calibration, spatial calibration and noise removal
- **Object Segmentation**: pages, images, text areas
- **Feature Extraction**: e.g. page size, pictorial space, written space
- **Metadata:** results are extended in XML schema according to TEI P5 in DARIAH Annotation Infrastructure
- **Visual Analysis:** gain better insights into multi dimensional datasets of digitized medieval manuscripts



Workflow for the extraction of layout features



An example of interactive visual analysis with highlighted dataset