

## TOPIC 14 - NEW - ALGORITHMS AND SYSTEMS FOR DIGITAL HUMANITIES

### CHAIRS

#### Global Chair

##### Iryna Gurevych

Technische Universität Darmstadt, Ubiquitous Knowledge Processing (UKP) Lab

#### Local Chair

##### Marco Böhler

Leibniz Institute of European History Mainz, Digital Historical Research

#### Co-Chair

##### Sayeed Choudhury

Sheridan Libraries of Johns Hopkins University, Baltimore, USA

### DESCRIPTION

The Digital Humanities aims to advance the effective and efficient use of computational methods and digital data as tools for original research questions in the humanities. In recent years, projects such as DARIAH, CLARIN and CESSDA have pushed technologies and services that support the FAIR principles of Open Science (data registries, identifier services, metadata specifications) as well as tools that support the domain scientists. Many of these tools and services are hosted at computing centers, aim to address the huge heterogeneity of data and tasks, and aim to increase access to and reuse of research data via collaboration and crowdsourcing. Based on these experiences, the DH track at the EuroPar-2019 casts its sights on the years to come and how the relationship between DH and computing centers will evolve in the near future. To this end, we solicit contributions on the following topics.

#### Fokus

- Applications of computing center and cloud resources in Digital Humanities projects
- Applications of large-scale batch computing for Digital Humanities research questions on HPC resources
- Applications of small-scale on-demand computational resources and serverless computing for Digital Humanities Applications of hosting of interactive services and tools for the Digital Humanities in the cloud or at computing centers
- Automatically locating and processing distributed data for Digital Humanities use cases
- Digital Humanities applications with special hardware requirements that can be provided by a computing center (GPUs, server-side VR rendering, etc.)
- Applications of MPI clusters in the Digital Humanities
- Growth of data in the Digital Humanities (text, images, videos, 3D models, multi-modal data, etc.)
- Management of heterogeneous discipline- and task-specific metadata
- Sustainability models for research software and online services in the Digital Humanities
- Obstacles in the technical infrastructures that affect Digital Humanities (may range from disk/network latency issues over memory capacities,

