Linking Data through Location

Tools, Workflows, and Quality Assurance of Geospatial Data Integration

Date: Thursday, 13 November 2025, at 13:00 to Friday, 14 November 2025, at 14:00.

Venue: GESIS – Leibniz-Institute for the Social Sciences in Cologne

The spatial dimension of data is becoming an increasingly vital asset for analysing and integrating diverse data sources in the social sciences. Whether linking survey data, digital behvaioral data – such as social media and web tracking data – or other large-scale datasets, geospatial information offers a common reference point that provides new insights into societal processes and improves inter- and transdisciplinary research. A critical step in ensuring data quality of such integrated data is the process of data linking, particularly when datasets are large and heterogeneous and lack direct spatial identifiers. Geospatial linking as an increasingly popular method of data integration uses georeferenced information which is often already embedded in digital trace data, such as IP addresses, GPS data, or location metadata in social media posts. However, the quality of the existing geospatial information is often unknown and variable and difficult to collect and process. Challenges include the availability and coverage of geolocation data, variations in the precision and granularity of location data across different sources, and the extraction and processing of indirect geolocation data.

The aim of this workshop, titled "Linking Data through Location: Tools, Workflows, and Quality Assurance of Geospatial Data Integration" aims to bring together experts from various disciplines to discuss, share and develop innovative tools and methods for evaluating and enhancing the quality of this linking process. It is organised by GESIS – Leibniz Institute for the Social Sciences as part of the KODAQS project, which is a competence centre for data quality in the social sciences and is funded by the German Federal Ministry of Education and Research. As part of the KODAQS project, we are developing a platform to facilitate the exchange of tools and workflows for assessing data quality. We invite contributions that advance discussions about existing tools and workflows and ideas for new ones that contribute to measuring and improving data quality. Contributions should focus on the following topics, among others:

- Tools, software, and technical infrastructure for geospatial data integration in social science research.

- Utilisation of novel sources of (big) spatial data for integration into survey research.

- Standards and tools for quality assessment of the location information and the data integration process.

- Applications and real-world examples of integrating digital behavioral data with (big) spatial data.

- New methods and applications for linking survey and digital trace data using geospatial identifiers.

- Temporal dynamics and longitudinal perspectives in geospatial data integration.

The workshop is free of charge. We will cover travel and accommodation costs for up to 400€ per participant. Self-funded participation is also possible.

We welcome submissions of abstracts (max. 300 words) that provide an overview of the tool, indicator, or methodology, its application, and the insights gained. We also invite work in progress. The deadline for submission is **06.07.2025**.

Please submit your abstracts to Anne-Kathrin Stroppe (anne-kathrin.stroppe@gesis.org) as a PDF document by the deadline. Researchers traditionally underrepresented in social sciences (e.g., women, LGBTQI+, first-generation graduates, ethnic minorities) are strongly encouraged to apply.