Deutsches Schifffahrts Museum

Ten research assistant positions will be advertised over the four-year funding period as part of the Wissenschaftsraum Provenienz- und Sammlungsforschung Digital. This project is funded by the State of Lower Saxony and the Volkswagen Foundation with around €3 million and led by Carl von Ossietzky University Oldenburg. It will take place in Oldenburg, Hanover, Lüneburg, Göttingen, and Bremerhaven.

The following position is available for the subproject "Dialogic AI Systems for Provenance and Collection Research" at the German Maritime Museum – Leibniz Institute for Maritime History as of November 1, 2025:

Research Assistant (m/f/d) (TV-L 13, 75%, until October 31, 2028).

The DSM is one of eight research museums of the Leibniz Association. Its exhibition and research program focuses on the study of maritime technologies and the relationship between humans and the sea. With around 100 employees and trainees, as well as approximately 8,000 square meters of exhibition space, the DSM is one of the largest maritime museums in Europe.

The Wissenschaftsraum focuses on developing new methods for the digital research and presentation of collection items that have been removed from their original contexts for various reasons, such as colonialism, war, looting, persecution, and market dynamics, and are now in German museums, recorded in databases, and presented in exhibitions. The Wissenschaftsraum combines provenance and collection research on two types of objects with epistemological and application-oriented research. The goal is twofold: first, to develop IT- and AI-supported methods for museums and other institutions to digitally process and visualize information about their collections, and second, to collaborate with international partners to explore knowledge production about collection objects in their societies of origin, in German museums, and in the digital space. A central question is how to handle uncertain data and knowledge. The research space consists of several coordinated subprojects.

One subproject, "Dialogic AI Systems for Provenance and Collection Research," is carried out by co-applicant institutions: the German Maritime Museum – Leibniz Institute for Maritime History (Department of Digitality and Materiality, Prof. Dr. Sebastian Vehlken); Jade University (Prof. Dr. Sascha Koch, Computer Science and Data Analysis); and the University of Hanover (Prof. Dr. Monika Sester, Cartography and Geoinformatics).

Subject and objective of the work package:

Contemporary critical cultural heritage research assigns a central role to the inclusion of knowledge from societies of origin and the active participation of people from these societies. Digital recording and indexing of provenance, archive documents, and collection object histories can benefit from multivoiced and multi-perspective annotation, description, and analysis of recorded materials according to scientific or other (e.g., current political or social) questions. However, there are major challenges regarding practical implementation and creating suitable formats for exchange and participation. However, there are significant challenges regarding practical implementation and creating suitable formats for exchange

and participation. This project explores how dialogue-oriented AI applications, interaction-oriented collection interfaces, and data visualization methods can support the inclusion of multiple forms of knowledge and diverse ways of expressing knowledge. The subproject focuses on three components in particular:

1. Comparative suitability tests and critical evaluations of existing large language models (LLMs) to develop a "dialogue system" for historical documents and text corpora (e.g., summarizing content, writing essays, answering queries in dialogue, and providing automated support in generating suitable prompt queries).
2. Explainable AI: conceptual development and model implementation of digital interfaces and inclusive data visualizations that make it easier for non-experts to handle provenance information or collection data on objects and archival materials. These interfaces allow for alternative representations of unsecured information components and enable multi-perspective annotations.
3. Historical-epistemological research on digital interface technologies and AI applications in the scientific processes of acquiring knowledge about critical cultural heritage. This includes defining fields of investigation and evaluation criteria, as well as evaluating LLM results and conducting comparative analyses of existing explainable AI applications.

This position involves close collaboration with the transdisciplinary team of researchers at the ProSaDi research center. It also provides access to resources at the Digitality and Materiality department at the DSM. This department is dedicated to the integrated implementation of computer-assisted applications for the future-oriented positioning of the collection in terms of its preservation, presentation, communication, and research.

Depending on the applicant's profile and professional background, this position may be considered either a scientific qualification position with the goal of obtaining a doctorate or a scientific project position without the goal of obtaining an academic qualification (e.g., application-oriented prototype development).

Profile:
We are looking for a highly motivated individual with independent, research-oriented, and interdisciplinary thinking skills in fields such as digital humanities, media informatics, design science, media design, data science, and human and artificial intelligence. Practical and application-oriented qualifications and knowledge are advantageous but not required. However, interest in theoretical, conceptual, and/or methodological issues, as well as openness to cross-cultural collaboration, are essential. The ideal candidate is a team player who is cooperative and characterized by a high level of commitment and reliability in work and communication. In addition to their own research project, the researcher should be willing to present digital collection and exhibition-related findings to academic and general audiences in a methodologically innovative way. The researcher will participate in establishing and supervising regional, national, and international collection network projects.

Desired Qualifications:

- Academic university degree
- Theoretical and/or practical knowledge of user experience design
- Theoretical, conceptual, and/or practical knowledge in the field of digital visualization or infographics
- Theoretical, conceptual, and/or practical knowledge of data analysis

- Theoretical, conceptual, and/or practical knowledge of working with large language models/machine learning
- Excellent written and spoken German and English
- Experience in museums, collections, and archives is advantageous but not required.

Interested?

We look forward to receiving your application!

Please send your digital application quoting **reference number 20259** to **personal@dsm.museum** by **14 September 2025**. Please provide all documents **in a single PDF file**.

For further information, please contact

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Remuneration is based on TV-L (the collective agreement for civil servants), depending on your qualifications, up to a **maximum of pay grade of TV-L 13 (75%)**. In addition to benefits comparable to those in the public sector, we emphasize work-life balance. This position is suitable for part-time work and working from home (regular personal appearances required).

The German Maritime Museum strives for gender equality and equal opportunities in all areas. We welcome all qualified applicants, regardless of gender, nationality, ethnic or social background, religion or worldview, disability, age, or sexual identity. We expressly welcome applications from people with a migration background. Severely disabled applicants with essentially the same professional and personal qualifications will be given priority.

Leibniz-Gemeinschaft