



## #1 GATE Research Meeting

### Milestone

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# Introduction

The first GATE Research Meeting took place on **April 4th, 2025**, in a hybrid format, welcoming in-person and online participants at Christian-Albrechts-Universität Kiel, Germany. This open-call meeting marked a foundational step in aligning the research direction of the [Open Science Learning GATE](#) initiative and served as a collaborative exchange of ideas across disciplines.

Organised by the **Zentrum für Konstruktive Erziehungswissenschaft (ZKE)** and GATE partners, the meeting aimed to explore how data collected by GATE could contribute to an actionable, community-driven GATE Report, informing about emerging and changing Open Science (OS) guiding thoughts and practices. It brought together GATE's core team and a panel of external experts, each contributing insights into how to model, analyse, and translate the qualitative data gathered from Open Science supporters.

To prepare the experts for this meeting, the GATE team provided several resources:



**GATE Research Meeting**  
4th April 2025 • 14:30 – 16:30 CET  
Zentrum für Konstruktive Erziehungswissenschaft and partners invite you to Olshausenstraße 75, 24116 Kiel, Germany, or [online](#).  
**The meeting will be recorded!**

**Agenda**

**Programme – Part 1**

**What is the GATE's internal research process?**

   

**Welcome from the GATE supporters**  
Katharina Miller (MIK)

**The GATE service: Prompting and GATE data**  
Marie Alavi (CAU) & Anika Müller-Karabil (MIK)

**About the GATE – Research Challenges and Gaps**  
Prof. Dr. Julia Priess-Buchheit (ZKE)

**Programme – Part 2**

**Answers from external researchers**

**The GATE Report and Knowledge Graphs**  
Dr. Daniel Mietchen  
Using the GATE data and building a design pattern for organising the guiding thoughts of Open Science, including their semantic relationships.

**How could the GATE Report become an ontology?**  
Tim Errington, PhD  
Reiterating prompting and modelling opens a door towards the representation of Open Science fields, good practices, and relations between these practices.

**Modelling the GATE Data to the Target Group from the European Research Area**  
Prof. Dr. Thalheim  
Starting with the target group's needs, conceptual modelling is a way to convey information.



1. A [short video](#) introducing the GATE Service and its function within the OS ecosystem.
2. An overview of what different stakeholder groups hope to gain from the GATE Report:
  - **Knowledge Creators and Trainers** can use the report to version, optimise, and disseminate their educational materials collaboratively.
  - **Research Community members**, including institutional leaders and researchers, benefit from a shared body of knowledge and the co-creation of open-access OS training programmes.

- **Policy Makers** consider the report a reliable, evidence-based resource for shaping OS policies.
  - **Research Funding Organisations (RFOs)** use the GATE Report as a guide to assess and enforce OS compliance in funding proposals. By promoting the visibility and utilisation of quality-driven (existing) capacities, GATE supports sustainable funding investments.
  - **Data Infrastructures** see the GATE as a channel for integrating training practices, aligning metadata models, and strengthening interoperability with initiatives like EOSC and EU Data Spaces.
3. A breakdown of the GATE Service and its iterative, community-driven prompt cycle:
- **Step 1:** Initial prompts were developed via focus groups and literature review across different target groups.
  - **Step 2:** These prompts are used in the GATE Service to collect data from those same communities.
  - **Step 3:** Prompts will be continuously refined based on what is gathered from users over time (though no strict timeline for updates is set).
  - **Step 4:** The prompt answers will be systematically analysed on a yearly basis as part of the report development process.
4. A sample dataset was also shared to illustrate the type of responses the GATE Service collects.

## What was the #1 GATE Research Meeting about?

### 1. Introduction to the GATE and Data Collection

Marie Alavi and Anika Müller-Karabil presented the GATE's architecture and its core service—a structured, survey-based data collection mechanism designed to identify "guiding thoughts" embedded in OS materials. With the help of the GATE, knowledge creators assess their content based on pre-defined and self-defined guiding thoughts and rate it in relevance and context. This process enables the creation of rich, qualitative datasets representing evolving OS community thoughts and practices.

### 2. Framing the Research Objective

Julia Priess-Buchheit introduced the overarching research questions and stakeholder interests in the future GATE Report. She emphasised the need to build a format that speaks to multiple audiences: researchers, research communities, trainers, policy makers, funders, and data infrastructures. She invited the assembled experts to help define analysis strategies that accommodate this diversity while maintaining scientific rigour.

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# Expert Contributions

## Expert 1: Tim Errington – Senior Research Expert in Open Science - Center for Open Science (COS)

Watch the video [here](#).

Tim encouraged the GATE team to **fully engage with the qualitative nature** of data provided by the GATE Service rather than simply categorising responses. He proposed identifying **emergent themes** through affinity mapping or similar techniques rather than restricting analyses to predefined guiding thoughts. This "bottom-up" approach respects the diversity of the research community's perspectives and avoids imposing rigid definitions across disciplines.

He also suggested:

- Analysing explanations in terms of **audience-targeting** (e.g., how trainers adapt language for policymakers vs. researchers).
- Integrating **demographic context** (e.g., discipline, role) for the data to interpret meaning better.
- Supplementing survey data by analysing connected **materials**, extracting concepts or terms not explicitly named by the knowledge creator.
- Considering how the GATE might support **metadata enhancement** for repositories like OSF and Zenodo, improving the discoverability of Open Science content.

His overarching message is: "Understanding what's missing is as important as identifying what's included." He urges GATE to become a tool for bridging gaps between community practices and policy or research expectations.

## Expert 2: Daniel Mietchen – Expert in Wikidata & Open Science Technologist - FIZ Karlsruhe

Watch the video [here](#).

Daniel proposed using **knowledge graphs** and **semantic web technologies** (like nanopublications) to model GATE data. He advocated:

- Structuring the **diversity of guiding thoughts** into standardised but flexible vocabularies, allowing both comparability and nuance.

- Using **Wikidata identifiers and triples** (subject–predicate–object) to build semantic relations across OS concepts and practices.
- Employing **community ranking tools** (e.g., All Our Ideas) to crowdsource the prioritisation of guiding thoughts.
- Enabling **personalised exploration paths** in the GATE Report, adapting output for various knowledge levels and stakeholder types.

He also pointed to the potential of the GATE Report to serve as a **living digital object**, evolving with user input and adapting to different reading and learning styles—an innovative and user-centric vision for GATE's public interface.

### Expert 3: Bernhard Thalheim – Computer Science and Modelling Expert - Kiel University

Watch the video [here](#).

Bernhard brought a systems design and modelling perspective. He emphasised:

- The importance of **conceptual modelling**, user profiling, and **audience-centric knowledge structuring**.
- Developing **modelling triptychs**, where educational content (the model) is flanked by language and underlying epistemic assumptions.
- Using **storyboarding and interaction mapping** to understand user journeys and optimise GATE's usability.
- Establishing **profiling frameworks** (personas) to define different user types who might access and interpret GATE content differently.

He stressed that educational systems must distinguish between **data, information, and knowledge** and that data collection without structure risks becoming obsolete. His advice called for integrating expertise-driven layers of interpretation within the GATE analysis workflow.

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## Outcomes and Next Steps

The meeting highlighted that the GATE's potential lies in its **qualitative richness, community participation, and capacity for adaptable infrastructure**. With constructive input from all speakers, several next steps were outlined:

1. **Refining data modelling** through qualitative analysis methods and possibly AI-supported tools.
2. **Building formal vocabularies and graph models** to structure GATE's open-ended responses into machine-readable formats.
3. **Developing stakeholder-specific outputs**—from granular reports to web-based dashboards.
4. **Preparing the 2025 GATE Report**, targeting release in autumn, using insights from the meeting to shape content and format.
5. **Fostering iterative collaboration**, including needs assessment with community stakeholders and co-designing future meetings for more interactive, discussion-based formats.

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The GATE initiative, as a **cooperative, transparent, and non-profit effort**, continues to establish itself as a **trustworthy solution** to build and maintain Open Science capacities. For more information or to join the GATE service, visit [www.openscienceGATE.com](http://www.openscienceGATE.com).