Solution Session

Open Science Capacity Building in times of AI: Finding solutions with the GATE

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Abstract

Every solution starts with building knowledge to address a challenge. Advancing Open Science (OS) in the age of Artificial Intelligence (AI) is key for responsible use of AI-tools in research and closely linked to evidence-based insights into communities' understanding of OS in order to build and advocate capacities. The more we know about current thoughts and practices around OS and AI, and the better we structure and share these insights, the more responsible actors in research can integrate AI-tools into their OS work, resources and practices. This is the starting point of the Open Science Learning GATE (GATE), an initiative establishing a continuous cycle of knowledge exchange within communities to foster capacity and shared knowledge building as well as community engagement within OS and the wider research ecosystem.

Participants' engagement: Interaction and collaborative workflow

This session invites participants to co-create and find collaborative solutions around current and emerging OS guiding thoughts and practices with a focus on AI. Drawing on data collected via the GATE Service – a questionnaire inviting OS knowledge creators to share their OS insights in general and at the intersection with AI – the session follows a three-phase co-constructive format:

(1) Pre-conference: Conference and session participants from the field of OS capacity building will be asked to contribute their OS insights via the tested and reliable GATE questionnaire (10-15 minutes, before the conference).

(2) In-conference (60 minutes): Data from (1) on OS guiding thoughts and practices (e.g. on accountability, fairness, AI use in research) will be shared and discussed. This will serve as the basis for participants to collaboratively [1] develop targeted OS (training) actions for the(ir) communities and [2] to design accessible, innovative solutions for the presentation of the collected OS/AI-data within the GATE Report.

(3) Post-conference: The results concerning [2] will feed into the open-access GATE Report 2025. The report will inform OS trainers, researchers, policymakers, infrastructure providers, and funders about current guiding thoughts and practices in OS, and disseminate the information widely.

Structure of Session (total 60 min):

Introduction to the topic (15 min):
Overview of the GATE initiative and presentation of the collected OS/AI data
Collaborative solution session (35 min):
Participants collaboratively reflect and discuss the data with the aim to co-design (1) targeted OS actions for the(ir) communities and (2) solutions for accessible, innovative presentation formats for the collected OS/AI-data within the GATE Report.
Wrap-up and documentation of outcome (10 min)

Outcomes and impact of the solution session:

Aligned with the conference objectives to advance OS capacity building in times of AI and to leverage OS for responsible use of AI in research, the proposed solution session will:

1) provide participants with a community-based practical understanding of guiding thoughts and practices in OS with a focus on AI in research,

(2) support them to co-develop strategies for sustainable OS training and knowledge sharing within their own communities and

(3) contribute to shaping future GATE Reports, the community-based output of the GATE initiative continuously informing the research ecosystem on OS.

The session reinforces a cycle of continuous knowledge exchange, strengthens evidence-based decision-making among communities, and promotes FAIR and high-quality OS education in the realm of AI. By leveraging GATE's transparent, collaborative infrastructure, this session fosters solutions to build a more connected and responsible OS community for the future.