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EHEAII AI IN HIGHER EDUCATION

Erasmus+ Cooperation Partnership project
„Empowering Higher Education through Artificial Intelligence Integration – EHEAII"
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REPORT

GERMANY

Within the EHEAII project, a series of round table discussions was organised in all project partner countries during February and March 2026. These discussions aimed to bring together higher education stakeholders to explore the impact of Artificial Intelligence on teaching, learning and institutional practices.

This report summarises the round table discussion held in Germany on 10 January 2026 at the Center for University Didactics and Quality Development in Aachen. The event was organised by Aachen University of Applied Sciences and brought together representatives from academia to discuss the role of artificial intelligence in higher education teaching, learning, and assessment.
The discussion was led by Prof. Dr.-Ing. Martin Wolf and involved 10 participants from Aachen University of Applied Sciences, representing different academic departments including Medical Technology and Mathematics, Economics, Electrical Engineering and Information Technology, as well as Chemistry and Biotechnology.

COUNTRY:	Germany
ORGANIZER:	Aachen University of Applied Science, Center for University Didactics and Quality Development
DISCUSSION WAS LED BY:	Prof. Dr.-Ing. Martin Wolf
DATE AND TIME:	10 January 2026, 12:00h
PLACE:	Center for University Didactics and Quality Development, Germany
TOTAL NUMBER OF PARTICIPANTS	10
PARTICIPANTS:	Participants from Aachen University of Applied Sciences represented a range of different departments, including Medical Technology and Mathematics, Economics, Electrical Engineering and Information Technology, as well as Chemistry and Biotechnology.

1. How is AI currently being used in teaching process in higher education, and what patterns or gaps you can identify?

AI is used in multiple ways across disciplines:

- Programming support (e.g. web coding, machine learning, workflow automation)
- Research assistance and literature exploration
- Case studies with external partners (e.g. AI in HR, job transformation analysis)
- AI tutors and simulation tools
- Creation of teaching materials and exam questions
- Introduction sessions on AI literacy and data protection
- Development of chatbots for student support
- AI-supported project-based learning

Patterns identified:

- AI is used more openly at Master level, more cautiously at Bachelor level.
- Strong differences between students who use AI critically to learn and those who use it mainly for shortcutting tasks.
- AI is often used for inspiration and efficiency gains.

Gaps identified:

- Lack of templates and structured guidance for students.
- Limited scalability of intensive AI-based teaching formats.
- Insufficient institutional infrastructure (e.g. secure exam environments, APIs).
- Many students are unaware of institutional AI tools.
- Ongoing struggle with balancing foundational learning and AI use.

2. To what extent can AI tools truly enhance learning outcomes without compromising academic integrity or critical thinking?

AI can significantly enhance learning outcomes when used reflectively:

- Enables faster access to adjacent or unfamiliar topics.
- Supports deeper exploration through iterative dialogue.
- Facilitates critical thinking by allowing students to evaluate AI-generated outputs.
- Enhances research proposal development and complex project work.

However, risks exist:

- Students may skip foundational learning.
- Superficial understanding may replace deep comprehension.
- Writing skills (linked to thinking processes) may deteriorate.
- Academic integrity is threatened in online exams and take-home tasks.

The key condition identified: AI enhances learning only when students are guided to critically assess and reflect on outputs, not merely reproduce them.

3. What are the most pressing risks - academic, ethical, or social - associated with the growing use of AI in universities, and how should they be addressed institutionally?

Academic risks:

- Erosion of foundational knowledge.
- Decreased writing competence.
- Challenges to assessment integrity (especially online exams).
- Potential destabilization of academic publishing systems.

Ethical risks:

- Bias in training data (gender, language, medical data).
- Resource consumption and sustainability concerns.
- Increasing dependence on a few large technology corporations.
- Lack of clarity about responsibility when AI agents make decisions.

Pedagogical risks:

- Growing gap between strong and weak students.
- Loss of motivation to learn basics.
- Faculty resistance or lack of competence.

Institutionally, participants suggested:

- Clear guidelines and responsible-use frameworks.
- Infrastructure for secure exams.
- Increased AI literacy and ethical training.
- Stronger emphasis on critical reflection and foundational competencies.

4. Are current national and institutional policies and guidelines sufficient to ensure responsible and transparent AI use by both staff and students?

Participants indicated that current policies are not sufficient.

Issues identified:

- Institutional chatbots are often outdated or less capable than commercial tools.
- Students frequently do not know institutional AI tools exist.
- Infrastructure for exam security is insufficient.
- Rapid tool development makes it difficult for institutions to keep up.
- No clear frameworks yet for liability and accountability in AI-supported decision-making.

There is a need for:

- Clearer, practical guidelines.
- Stronger data protection awareness.
- Transparent communication about available tools.
- Strategic decisions on whether to compete technologically or focus on competence development.

5. How can universities better prepare educators and students to use AI critically and ethically- through training, curriculum integration, or support mechanisms?

Key approaches discussed:

- Early AI literacy sessions (including data protection and prompt strategies).
- Structured "brain-only first, AI-second" assignments.
- Integration of AI reflection tasks into assessments.
- Project-based learning with real-world AI applications.
- Emphasis on evaluating AI outputs rather than only generating them.
- Training in ethical decision-making and accountability.
- Development of competencies rather than tool-specific knowledge.
- Encouraging algorithmic, data-driven, and process-oriented thinking.

Preparation should focus less on specific tools and more on thinking skills, judgment, and responsible delegation to AI systems.

6. What good practical examples you can name using AI in higher education?

Examples mentioned:

- AI-supported coding in Master-level machine learning courses.
- AI-assisted research proposal writing (with reflection on limitations).
- Case studies with companies (AI upskilling projects).
- Student-built apps using AI tools (e.g. service-matching platforms).
- AI tutors and simulation exercises.
- Automated workflows using tools like N8N.
- Chatbots for student support (though still improving).
- AI-based evaluation and comparison of different model outputs.
- Reflective assignments requiring students to evaluate AI-generated content.

These examples worked best when AI was integrated into structured learning designs rather than used informally.

7. How do you see AI transforming teaching roles and assessment methods in future, and what competences will become essential for educators?

Teaching roles will shift:

- From knowledge transmission to fostering thinking and judgment.
- From teaching tools to teaching competencies.
- From controlling information to guiding evaluation and reflection.
- From individual homework assessment to more supervised and interactive formats.

Essential competences for educators:

- Ethical judgment and accountability awareness.
- Ability to design AI-robust assessments.
- Competence in structuring learning processes in AI-rich environments.
- Understanding of algorithmic and data-driven thinking.

- Confidence in managing classrooms where students may have advanced technical AI skills.
- Capability to explicitly justify why foundational knowledge still matters.

There may be stronger emphasis on "learning how to think" rather than "learning how to perform tasks."

8. Should AI tools used for student assessment and exam monitoring – classified as high-risk technologies under the EU AI Act – be treated as such in practice, and what level of human oversight should universities ensure to guarantee fairness, transparency and the protection of students' rights?

Although the EU AI Act was not discussed explicitly in legal terms, participants clearly emphasized:

- Strong human oversight is necessary.
- Full automation of high-stakes decisions is problematic.
- Responsibility must remain with human actors.
- Secure technical environments are needed for exams.
- Infrastructure (devices, controlled systems) may be required to ensure fairness.

Participants stressed that accountability cannot be delegated to AI systems; decision-making responsibility remains with humans.

9. How do you see AI use in higher education in 10 years? Your vision?

The discussion suggested several possible developments:

- Stronger focus on thinking skills (algorithmic, data-driven, evaluative).
- Curriculum shifts from tool-based skills to cognitive competencies.
- AI as universal learning assistant ("democratization of expertise").
- Greater emphasis on ethical decision-making.
- Possible rethinking of written academic formats.
- Blending of AI-supported and human-supervised decision processes.
- More explicit reflection on the purpose of learning itself.

There was cautious optimism: AI may enable broader access to knowledge, but institutions must actively shape its responsible integration.

Additional remarks

Additional themes included:

- The sustainability and energy consumption of AI systems.
- Institutional strategy: invest in state-of-the-art tools vs. focus on open-source and competence.
- The tension between democratization of knowledge and risk of superficial learning.
- Open legal questions regarding liability in AI-assisted decision-making.
- Need for ongoing dialogue and international exchange.

Overall, the roundtable highlighted both high transformative potential and substantial structural, ethical, and pedagogical challenges.