



Emerging Researchers as AI Pioneers: *Ethical Challenges of AI Use in Vocational Education and Training – A Shift in Perspective*

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02. Vocational Education and Training (VETNET)
Research Workshop, Wednesday, 19. August: 15:30 - 17:00

Agenda

- „AI in my research“ (Mentimeter)
- Input: AI Competences and Ethics
- Group Work on AI Ethics Cases of Emerging Researchers
- Plenary Discussion
- Reflection & Wrap-up

Mentimeter Poll “AI in My Research”

Go to

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Enter the code

3367 2771



Why AI matters for Emerging Researchers

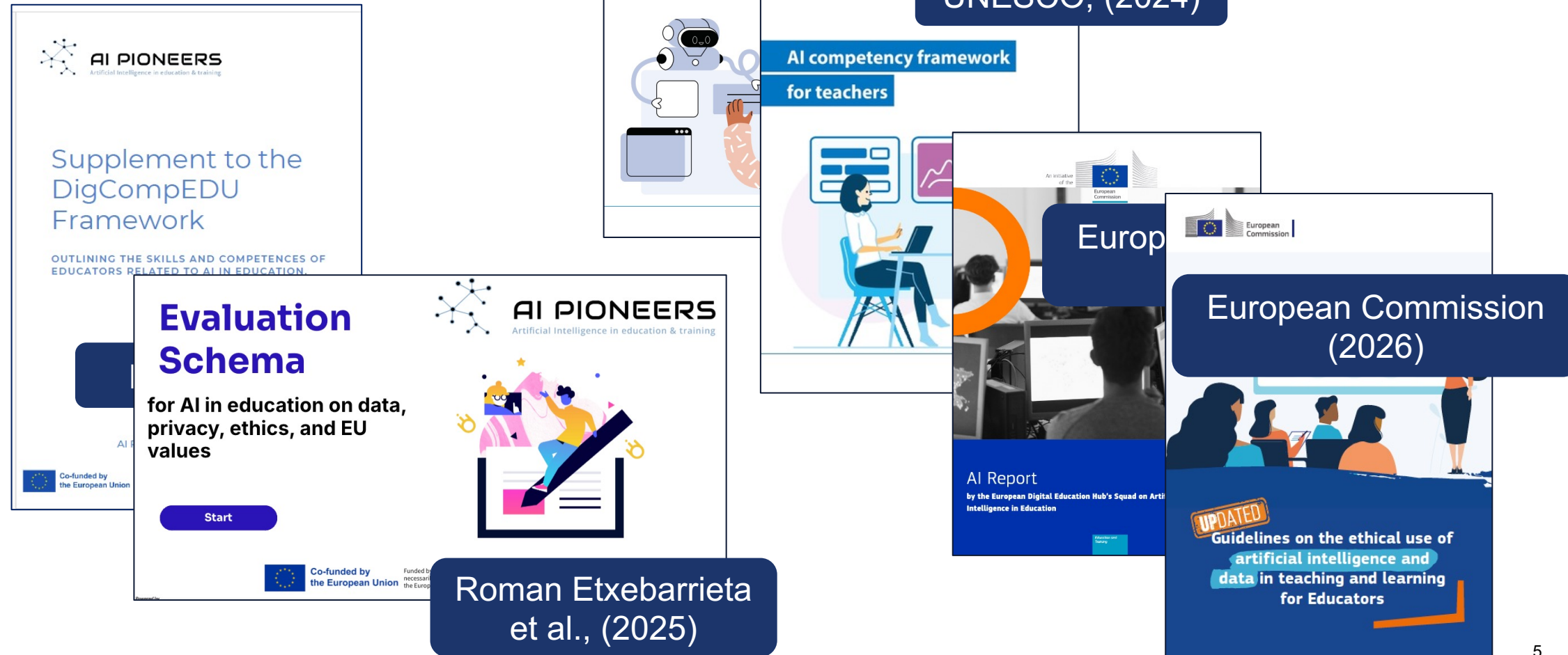
- AI is part of everyday research work
- New challenges regarding the conduct of ethical research
- Universities increasingly permit AI use, but regulate it
- Transparency requirements are increasing, e.g. in practical questions like AI statements in research publications

“ (AI users) should be equipped not only with **technical and regulatory knowledge** but also with the **values and critical awareness** needed to ensure that AI is used for the benefit of all and with **respect for human rights**. (...) ”

This includes being able to **evaluate** whether AI applications support learning objectives, whether they are **sustainable in the long term**, and whether their **use contributes** to the common good. (European Commission, 2026, p. 6)

”

A wide range of (ethical) AI guidelines



What Competences Do Emerging Researchers Need in Order to Use AI Tools in a Reflective and Ethically Responsible Manner?



Technical & Methodological Competence

Ethical and Critical Competence

Collaborative & Professional Competence

Technical & Methodological Competence

1. Use AI tools, understand data processing, draw conclusions, assess the results
2. Attend workshops/webinars/online courses & engage in self-paced learning
3. Be aware of technological developments & risk assessments
4. Experiment with AI tools (e.g., for organisational tasks, data analysis)
5. Develop own and adapt existing AI resources to enhance interaction and customisation
6. Use AI as a tutor (e.g., to assist in reviewing written work, highlighting recurring errors)
7. Understanding of prompt engineering

This requires specific skills and a basic understanding of the task itself.

Ethical and Critical Competence

1. Critically examine and reflect on the processes and outcomes of AI use from a human-centred perspective
2. Address aspects of fairness, protection of personal data, anonymise data sets accordingly.
3. Consider which AI systems are used and where they are hosted.
4. Protect human rights & agency, promotion of linguistic and cultural diversity, inclusion and environmental sustainability
5. Be aware that AI systems are trained on specific datasets which can reproduce bias
6. Recognise that individual decisions by scientists may have implications for the autonomy of those surveyed
7. academic integrity is of utmost relevance in this context; use of AI must be disclosed.

In order to address all these aspects of ethical use of AI effectively, institutional structures are needed.

Collaborative & Professional Competence

1. Learn within communities of researchers with varying levels of experience.
2. Join interdisciplinary collaboration about AI (e.g., when AI projects are planned and launched).
3. Share case studies where AI makes work easier and has a positive impact, and consider the drawbacks and risks of this reduction in workload.
4. Motivate others to join the discourse.
5. Explore new professions with AI and get in exchange with experts.
6. Explore and use AI as an lifelong professional learning process.

The competent use of AI is as an essential part of professional expertise, bringing together technical knowledge, critical reflection and ethical responsibility.

Interactive Group Work

Each group works on a case scenario involving the use of AI by an emerging researcher.

1. Familiarise yourselves with the scenario and discuss the reflection questions given in your group.

2. Then prepare on a flipchart:

- one ethical dilemma
- one recommendation
- one remaining open question

3. Each group presents (2-minute summary)



Scenario 5

Ethical Dilemma:

!! Data security

!! Risk to intensify stereotype

Recommendation:

→ Always keep the awareness that AI can not be objective!

→ At least ^{2x} be critical reflective before and after using AI-Tool

Open question:

? What happened to the data given to AI?

Scenario 4

- Balancing/regulating the level of the language of the presentation in accordance with the level of the presenter's language. (For example, claiming the level as A1, A2 etc.)

- Editing is necessary. Always!

- Prompt is important. A persona should be given. For ex: "You are the editor. Do not use your own decisions, comments, always stick to the original text."

ETHICAL DILEMMA

TRANSCRIPTION + QUALITY ANALYSIS
(HAKOLA I)
+ COBING

IS AI COBING THE RIGHT WAY?
IF INFER MAXIMUM
OR DIRECTLY OUT OF IT?

RECOMMENDATION

OPEN QUESTION

VALIDITY OF THE ANALYSIS
CAN AI HAVE A ⊕ IMPACT?
HOW DO WE USE AI FOR THIS PURPOSE?

Scenario 1

Ethical dilemma

What is the contribution of AI and of mine as an academic?

Recommendation

- Make experience
- Never trust automatically
- trust yourself!

• Open Question

- Role of academic in the future?
- Which skills can be developed in the future?

Scenario 2

Dilemma: Time Saving vs Data protection

Recommendation: Transparency

Open question: Can we trust the tool?

Plenary Discussion



1. Which ethical issue is currently of most interest to you in relation to your PhD?
2. Which area of competence (technical and methodological; ethical and critical; collaborative and professional) seems most challenging to you?
3. To what extent have you already had such discussions within your teams amongst different generations of scientists?

Picture: European Commission (2026)

Reflection & Wrap-up

Complete the sentences:

1. One idea I will take into my own research is...
2. One ethical question I still have is...
3. One competence I want to develop further is...



Picture: European Commission (2026)

Reflection & Wrap-up

Complete the sentences:

1. One idea I will take into my own research is...

Change to process oriented assessment

Consider data protection

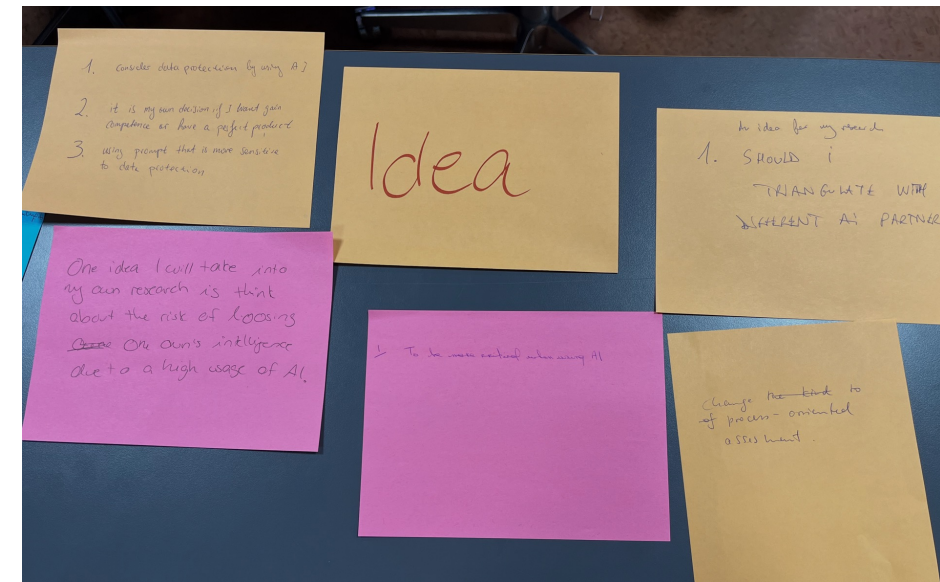
Risk of losing one's own intelligence

What share of the
output is mine?

Should I „triangulate“ with
different AI partners?

Be more critical when using AI

*Do I want a perfect
product or gain competence?*



Picture: European Commission (2026)

Reflection & Wrap-up

Complete the sentences:
2. One ethical question I still have is...

How to secure my own
research in the age of AI
(plagiasm)?

What happens to the data I enter?

Is this the end of a PhD
as we know it?

Can I trust the AI tool?

How to keep
originality of my
Product while being
consultated by AI?

Picture: European Commission (2026)

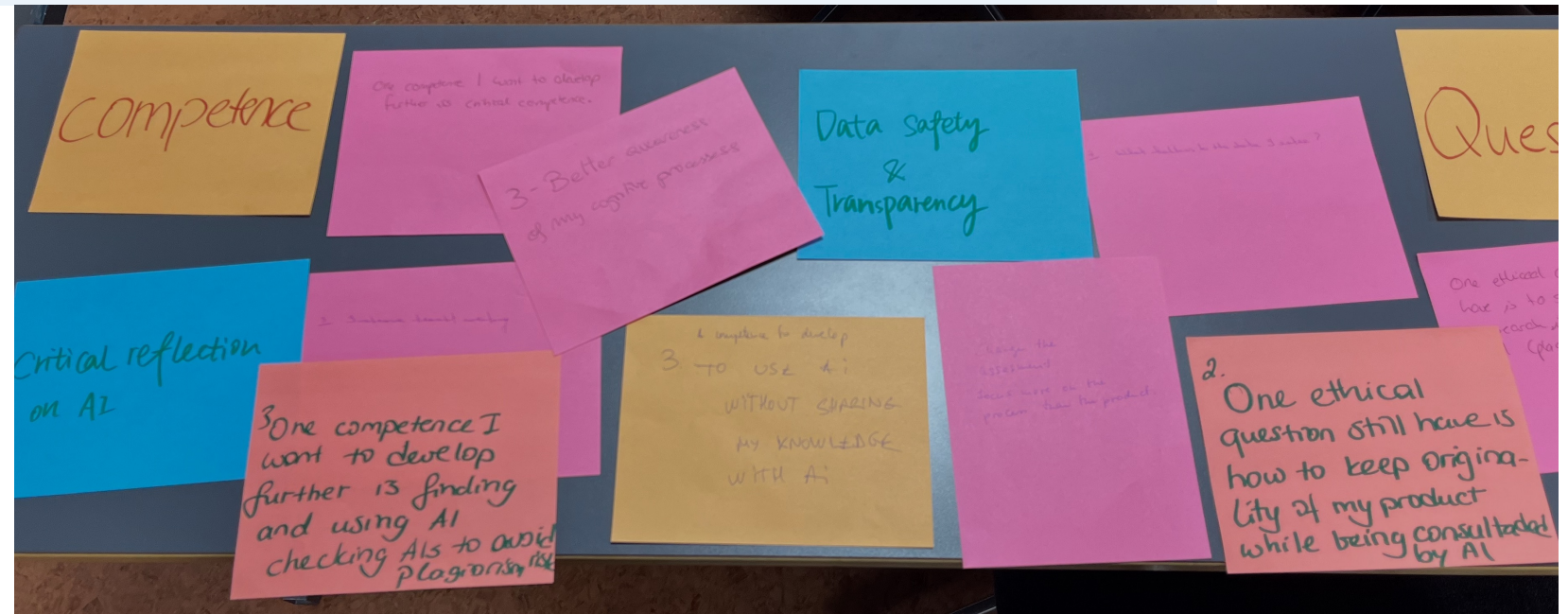
Reflection & Wrap-up

Complete the sentences:
3. One competence I want to develop further is...

Checking AIs to avoid
plagiarism

Awareness of own
cognitive processes

Being critical



Data safety & transparency

Focus on the process
Instead on the product

How to use AI without
Sharing own knowledge with AI

Change the assessment

References

Bekiaridis, G., & Attwell, G. (2023). AI Supplement to the DigCompEdu Framework. AI Pioneers. <https://aipioneers.org/supplement-to-the-digcompedu-framework/>

European Commission. (2023). AI report – By the European Digital Education Hub’s Squad on artificial intelligence in education. Publications Office of the European. <https://data.europa.eu/doi/10.2797/828281>

European Commission. (2026). Guidelines on the ethical use of artificial intelligence and data in teaching and learning for educators. Publications Office of the European Union. <https://data.europa.eu/doi/10.2766/7967834>

Roman Etxebarrieta, G., Orcasitas-Vicandi, M., & Antzaka, A. (2025). Evaluation schema for AI in education on data, privacy, ethics, and EU values. AI Pioneers. <https://aipioneers.org/evaluation-schema-for-ai-in-education-on-data-privacy-ethics-and-eu-values-wp5/>

United Nations Educational, Scientific and Cultural Organization. [UNESCO] (2023). Guidance for generative AI in education and research. UNESCO. <https://doi.org/10.54675/EWZM9535>

United Nations Educational, Scientific and Cultural Organization. [UNESCO] (2024). AI Competency Framework for Teachers. UNESCO. <https://doi.org/10.54675/ZJTE2084>



**Thank you very
much for your
attention!**