Faculty AI Literacy

AI Literacy in the Context of Higher Education

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Teaching &
Learning
Centre

AI Literacy

"a set of competencies that enables individuals to critically evaluate AI technologies; communicate and collaborate effectively with AI; and use AI as a tool online, at home, and in the workplace"

(Long & Magerko, 2020)

KNOWING & UNDERSTANDING AI

USING & APPLYING AI

EVALUATING & CRITICALLY ASSESSING AI

ETHICAL CONSIDERATIONS & RESPONSIBLE USE

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EU AI ACT

The European Artificial Intelligence Act

mandates for organizations that provide and/or use AI systems to

> "take measures to ensure, to their best extent, a **sufficient level of AI literacy** of their staff and other persons dealing with the operation and use of AI systems."
>
> (*Article 4)*

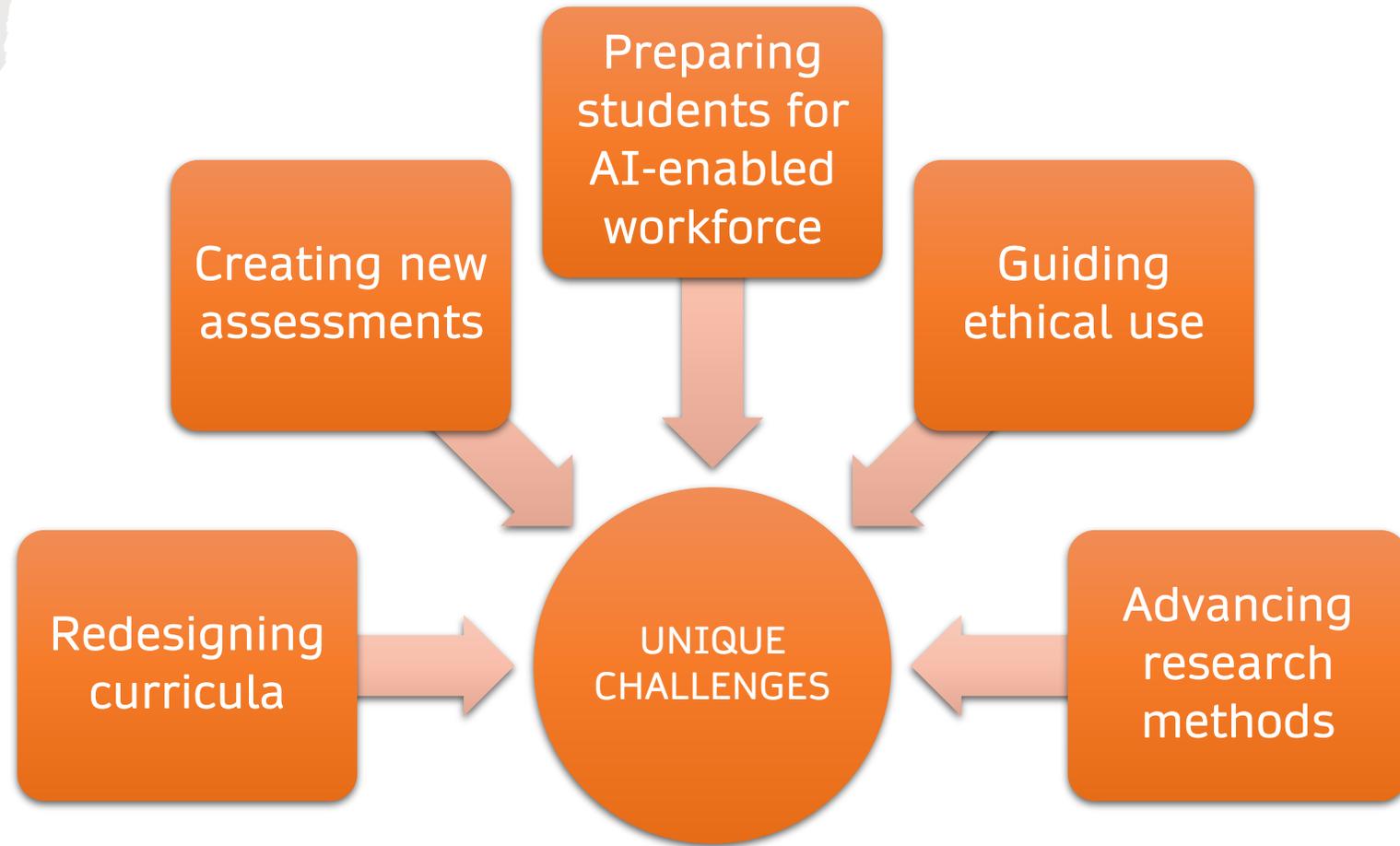| To accomplish...	... the following AI literacy target audience...	... should be equipped with the following necessary notions...	.... in order to...	... taking into account...
the greatest benefits from AI systems while protecting fundamental rights, health and safety and to enable democratic control	■ providers ■ deployers	■ skills ■ knowledge ■ understanding	■ gain awareness about the opportunities and risks of AI and possible harm it can cause ■ make an informed deployment of AI systems	■ the AI literacy target audience's technical knowledge, experience, education and training ■ the context the AI systems are to be used in ■ the persons or groups of persons on whom the AI systems are to be used.

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FAIL

Faculty AI Literacy

a multifaceted combination of AI-related competencies needed in the context of higher education, where teachers (faculty) are:

- ✓ *architects of pedagogy*
- ✓ *mentors of student research*
- ✓ *custodians of academic integrity*

Creating new assessments

Preparing students for AI-enabled workforce

Guiding ethical use

Redesigning curricula

UNIQUE CHALLENGES

Advancing research methods

FAIL

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AWARENESS
- of the existence and capabilities of various types of AI technologies for higher ed

UNDERSTANDING
- of fundamental principles, capabilities, and limitations of AI technologies relevant to higher ed

PRACTICAL SKILLS
- needed to use AI tools effectively and appropriately to enhance teaching, learning, research, and administrative tasks

CRITICAL MINDSET
- needed to evaluate AI systems and their outputs for accuracy, bias, reliability
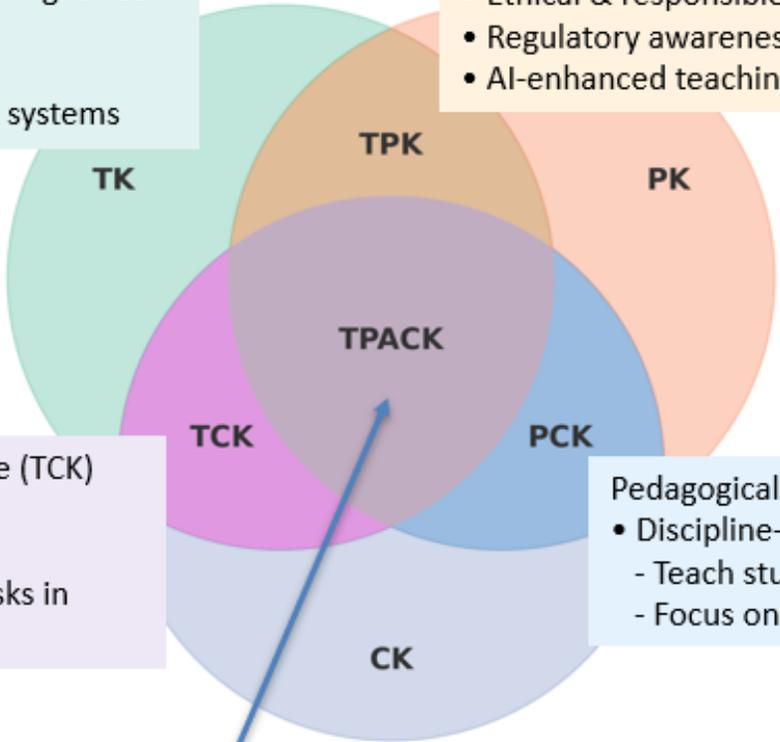
ETHICAL ENGAGEMENT
- fostering academic integrity, promoting responsible innovation, and preparing students for an AI-infused world, aligned with both academic best practices and regulatory awareness

Technology (TK)
• Knowing & Understanding AI
  - Core concepts (ML, data, algorithms)
  - Capabilities & limitations
• AI Awareness
  - Types of AI & applications in higher ed
• Technical Skills
  - Prompt engineering
  - Effective interaction with AI systems

Technological Pedagogical Knowledge (TPK)
• Ethical & responsible use in teaching
• Regulatory awareness (e.g. EU AI Act)
• AI-enhanced teaching

TK

TPK

PK

TPACK

TCK

PCK

CK

Technological Content Knowledge (TCK)
• Using AI for the discipline
• Adapting AI to context
  - Enhance research & admin tasks in the field

Pedagogical Content Knowledge (PCK)
• Discipline-Specific Critical Pedagogy
  - Teach students to evaluate AI outputs
  - Focus on accuracy, bias, reliability

TPACK - Faculty AI Literacy
• Holistic knowledge, skills, awareness
• Ethical & effective AI use in teaching
• Prepare students for an AI-infused world

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FAIL meets TPACK

designing a significant learning experience that
uses a specific AI tool (TK)
to explore subject matter (CK)
in a way that is pedagogically sound (PK)

Next lunch seminar

- **Designing Blended Learning That Works: Finding the Right Balance in Your Teaching by Coyan Tromp (IIS)**

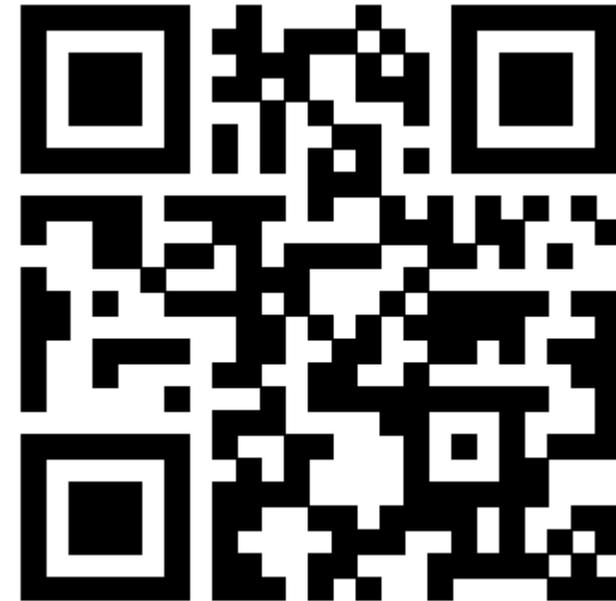- **Tuesday 17 March 12:00-13:00**

- **REC C0.03 (TLC-FMG space)**

edu.nl/8cvpw

Evaluation form

• Help shape future editions: Scan the QR code!

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