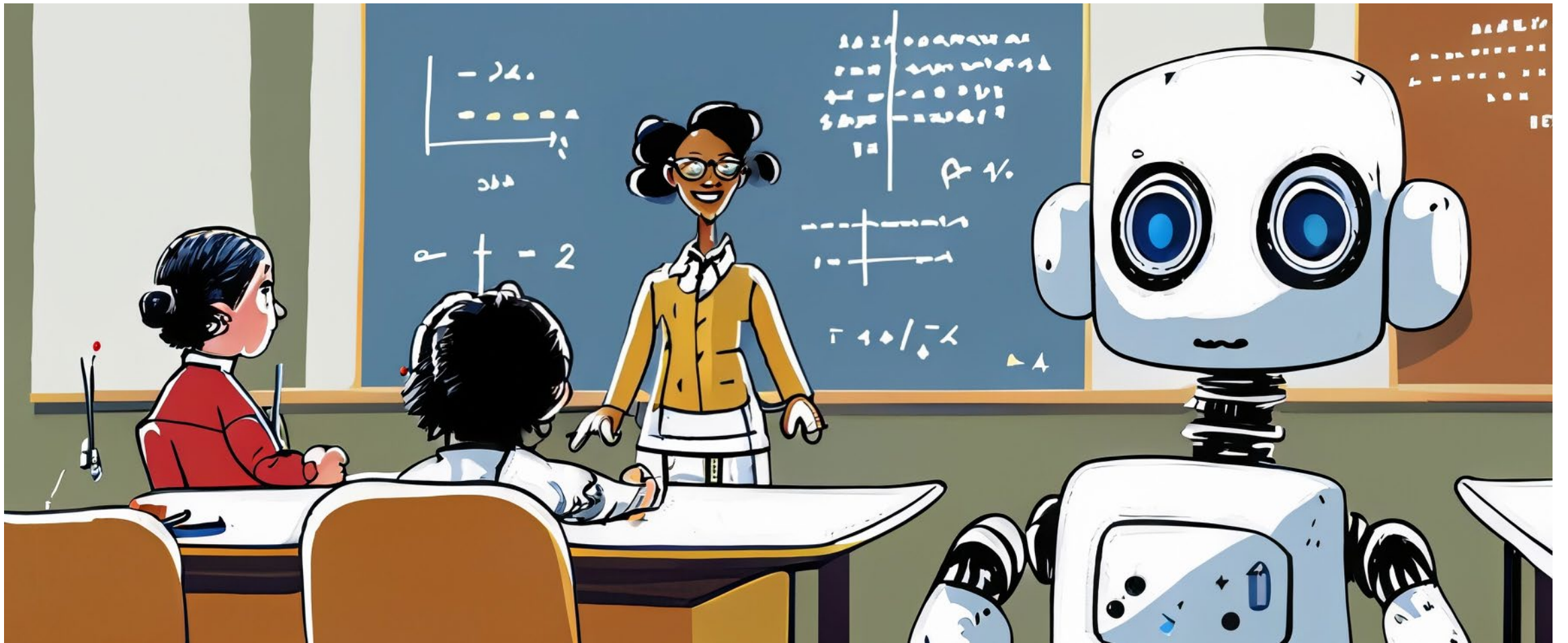


AI in education?



AI in education (2019, China)



Call to action

- **Identify and support new roles** of educational stakeholders, pedagogical practices and policies for AI and data literacies in educational contexts.
- **Foster Human-AI-Alliance in education** through institutional strategies and actions to support teachers' agency and to avoid deprofessionalisation of educators.
- Build and use a **rigorous body of open knowledge and evidence** about AI in education to support evidence-informed development of AI applications and pedagogical practices.
- Prioritize **privacy and ethical considerations** through a multiperspective and interdisciplinary approach as the core of AI in education.

Use of intelligent/adaptive systems in Education

- Growth of use of adaptive systems in primary / secondary education
- Use of learning analytics in higher / vocational education
- Increase of pressure / influence by commercial companies

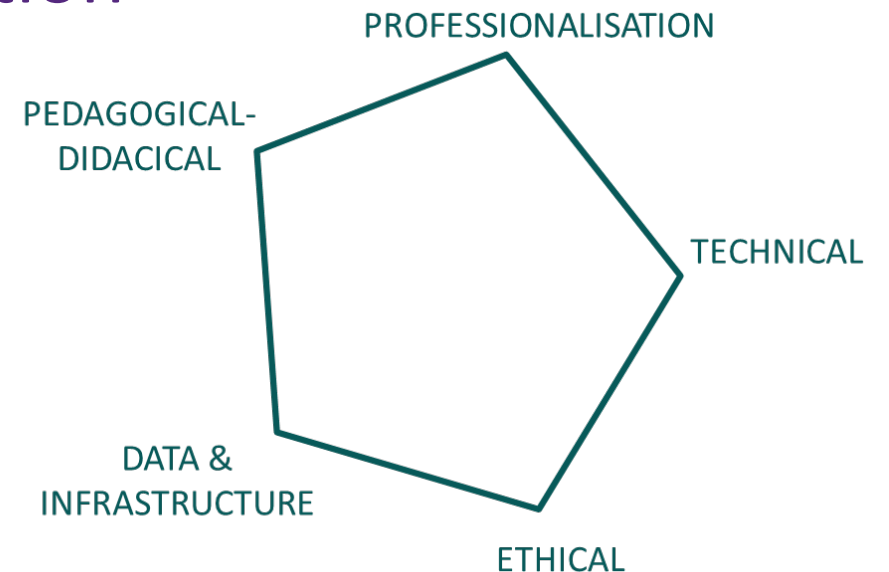
“A complex algorithm that you don’t fully understand should be treated as AI”



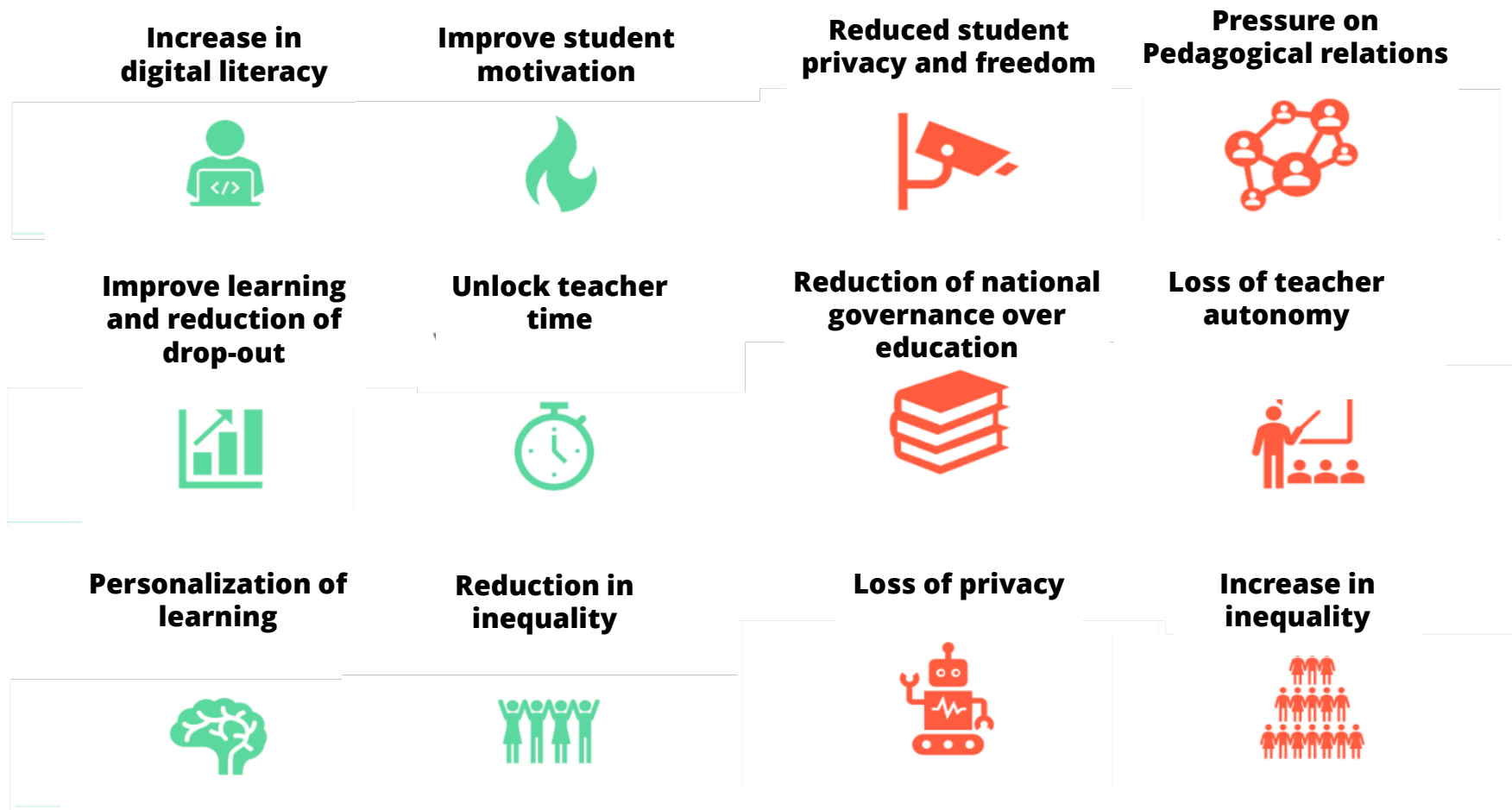
National Education Lab AI

- Collaboration between Education, Research, Business
- Evidence informed co-creation of AI solutions for education
- Focus on primary and secondary education
- Focus on teacher and student
- 10-year project, € 80 million funding

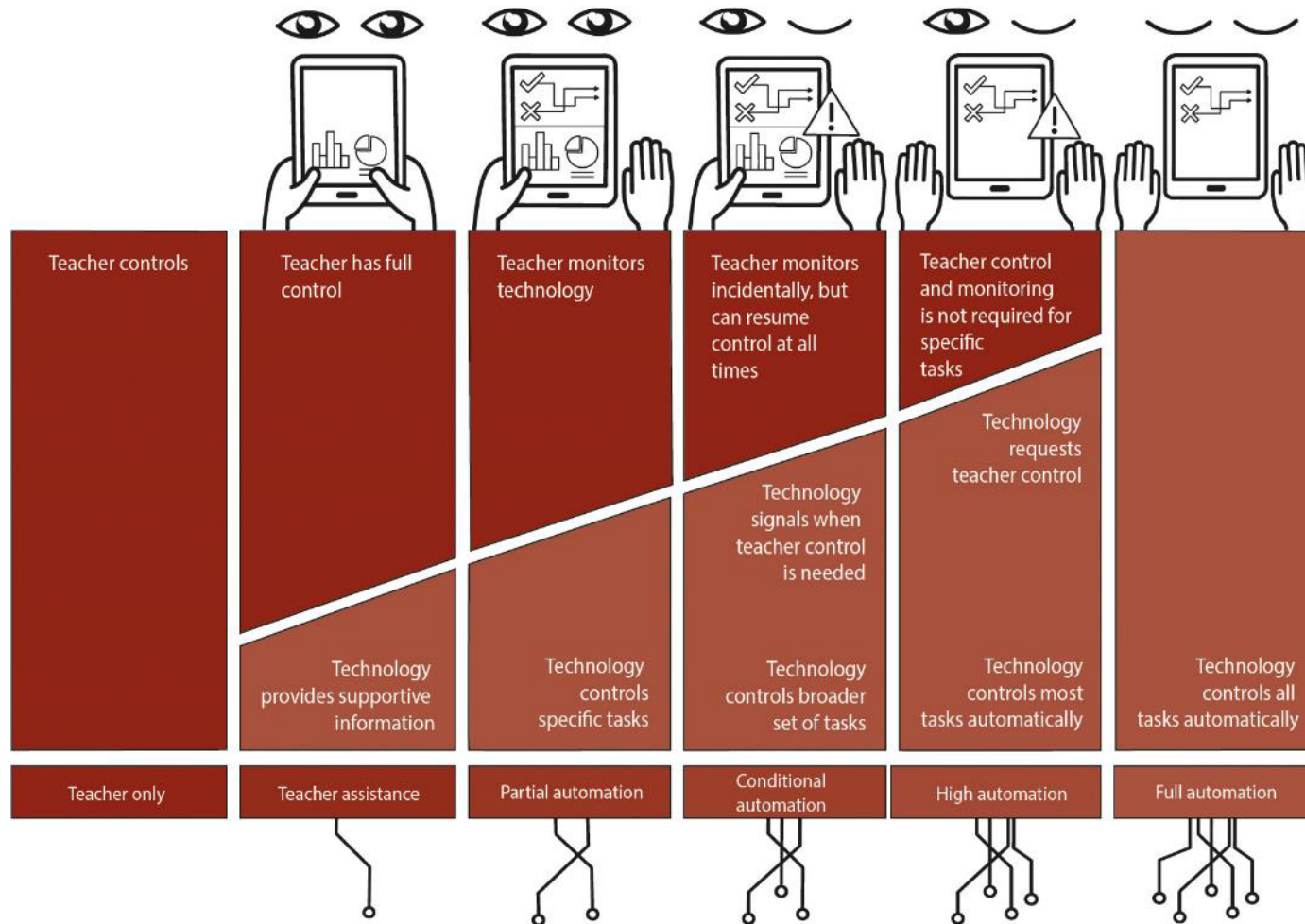
NOLAI
NATIONAAL
ONDERWIJSLAB AI



Opportunities & Risks

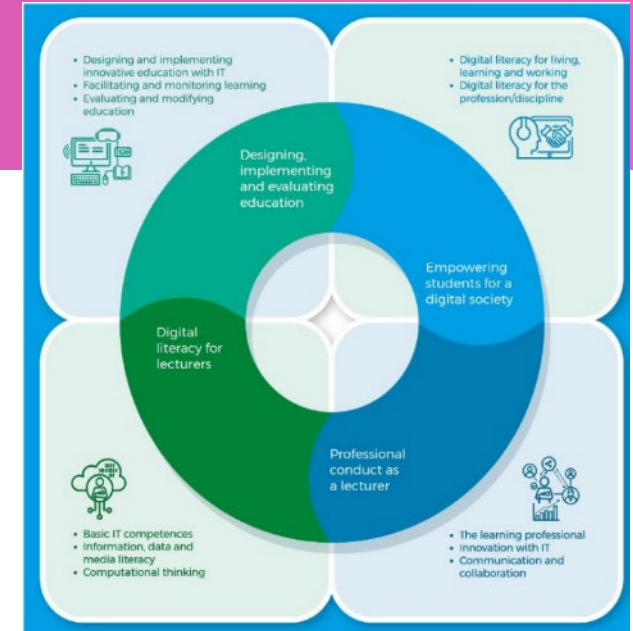
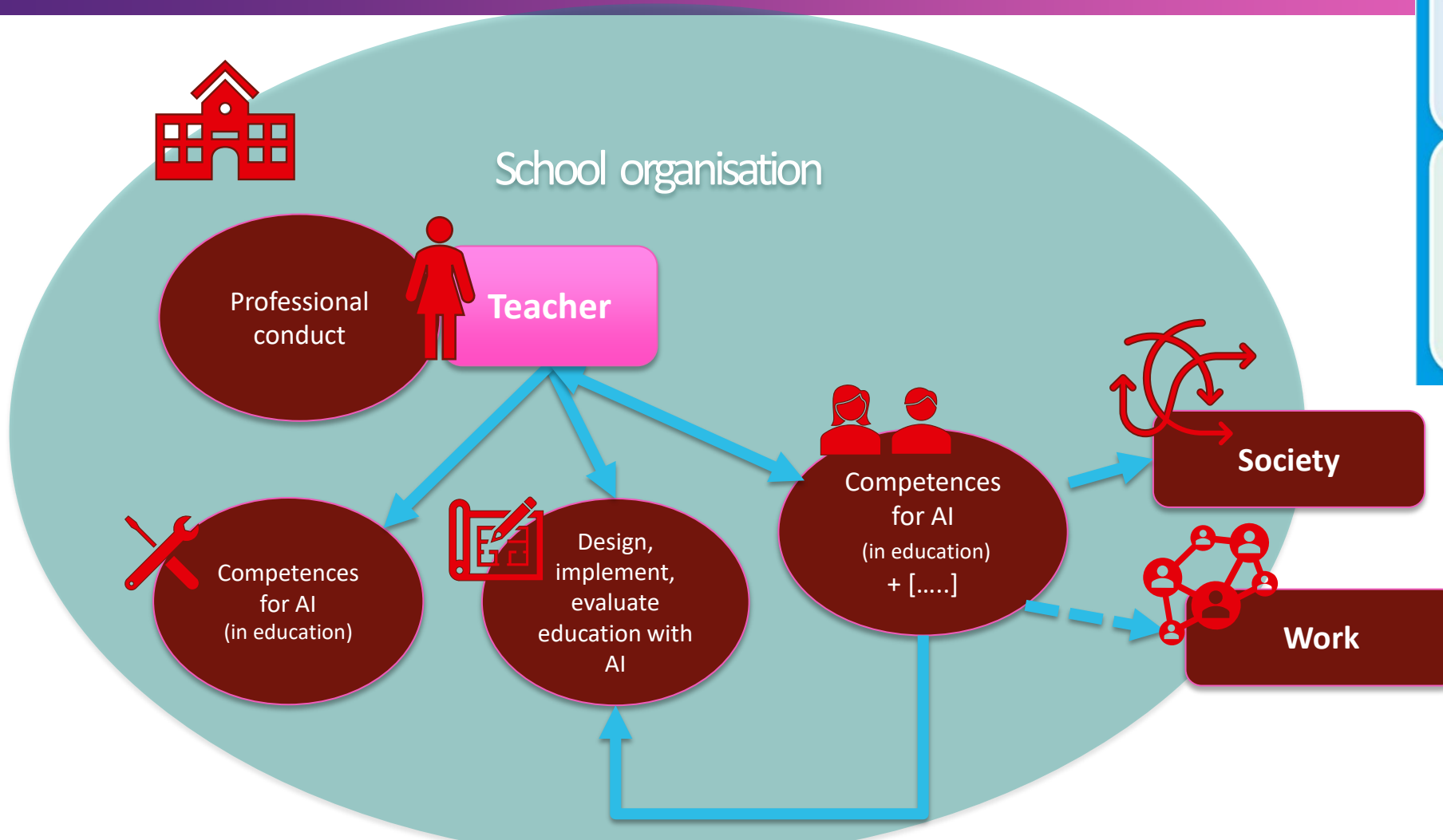


Important consideration: Who is in control?



© Anne Horvers & Inge Molenaar, Adaptive Learning Lab.

Teacher competences



Education Tech Research Dev (2023) 7:1-33-53
<https://doi.org/10.1007/s11423-023-10193-5>



CULTURAL AND REGIONAL PERSPECTIVES



The HeDiCom framework: Higher Education teachers' digital competencies for the future

Jo Tondeur^{1,2} · Sarah Howard^{1,2} · Manon Van Zanten¹ · Pierre Gorissen¹ · Irma Van der Neut⁴ · Dana Uerz¹ · Marijke Kral¹

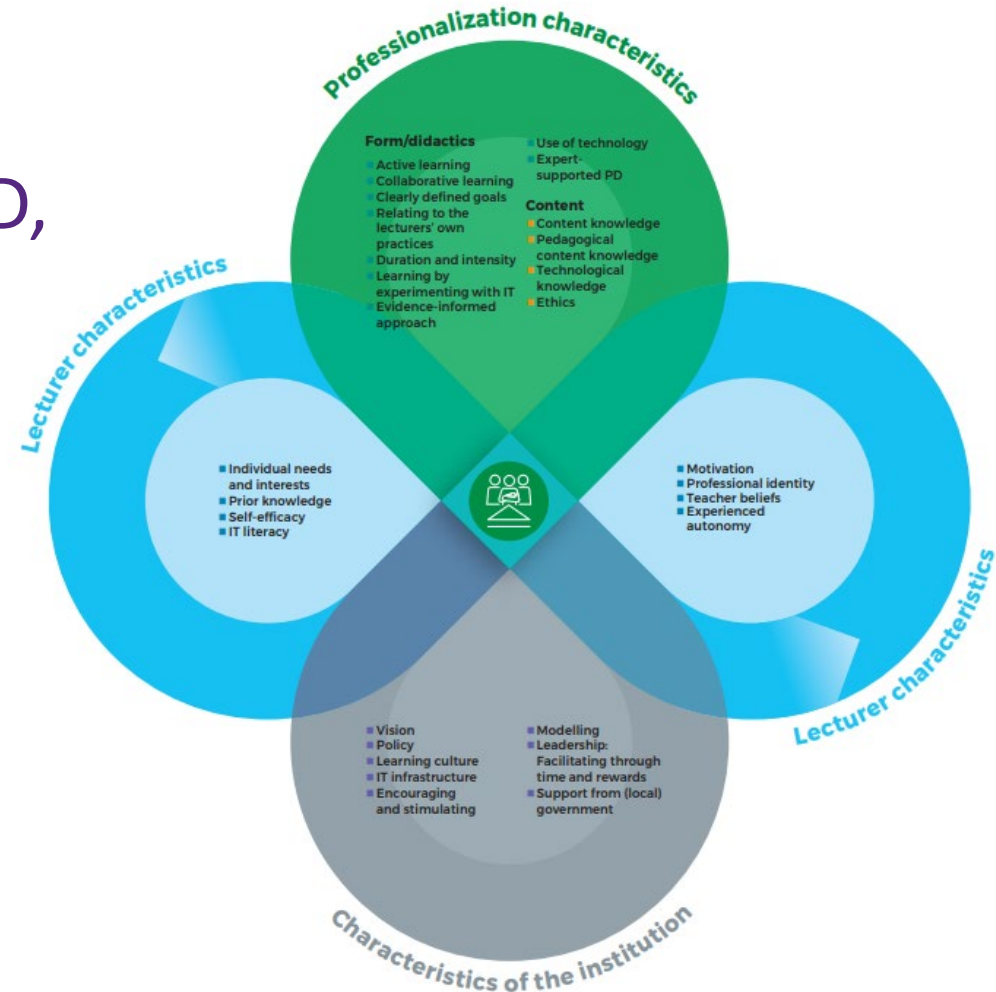
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Abstract

There is little consensus about the nature of teachers' digital competencies in Higher Education. Moreover, existing digital competence frameworks have largely been developed for teachers in secondary education. In response to this, the current study focuses on developing and validating a framework of digital competencies for teachers in Higher Education. First, a review was conducted to determine the state of digital competence research

Continued Professional Development

- Integrated into the work,
- Teachers need to be owners of their CPD,
- Active and explorative learning,
- Together with colleagues,
- Authentic learning experiences,
- Grounded in policy and organization,
- Time for experiment and reflection,
- Support inside the classroom.



And what about students?



Information and data literacy

- 1.1. Browsing, searching and filtering data, information and digital content
- 1.2. Evaluating data, information and digital content
- 1.3. Managing data, information and digital content

Communication and collaboration

- 2.1. Interacting through digital technologies
- 2.2. Sharing information and content through digital technologies
- 2.3. Engaging in citizenship through digital technologies
- 2.4. Collaborating through digital technologies
- 2.5. Netiquette
- 2.6. Managing digital identity

Digital content creation

- 3.1. Developing digital content
- 3.2. Integrating and re-elaborating digital content
- 3.3. Copyright and licences
- 3.4. Programming

Safety

- 4.1. Protecting devices
- 4.2. Protecting personal data and privacy
- 4.3. Protecting health and well-being
- 4.4. Protecting the environment

Problem solving

- 5.1. Solving technical problems
- 5.2. Identifying needs and technological responses
- 5.3. Creatively using digital technologies
- 5.4. Identifying digital competence gaps



KNOWLEDGE

- To be aware of what AI systems do and what they do not do
- To understand the benefits, limitations and challenges of AI systems



SKILLS

- To use, interact and give feedback to AI systems as an end-user
- To configure, supervise and adapt AI systems (e.g. overwrite, tweak)



ATTITUDES

- Human agency and control
- Critical yet open attitude
- Ethical considerations of usage

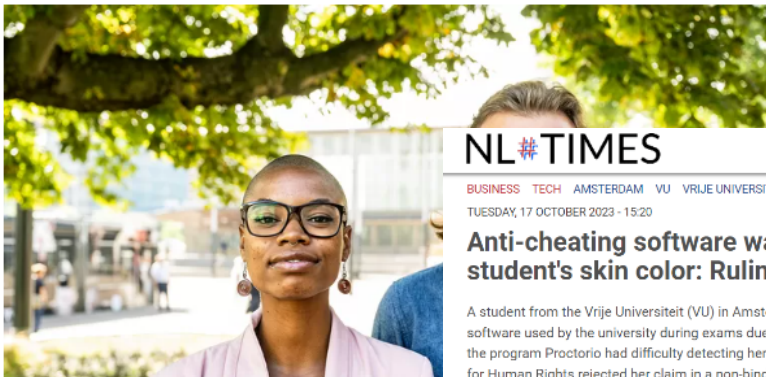
Can AI be racist?

NIEUWS

De antispieksoftware herkende haar niet als mens omdat ze zwart is, maar bij de VU vond ze geen gehoor

Een student aan de Vrije Universiteit dient vrijdag een klacht in bij het College voor de Rechten van de Mens. De universiteit had van tevoren moeten informeren of de antispieksoftware net zo goed werkt voor zwarte studenten, vindt zij.

Fleur Damen 15 juli 2022, 05:00



NL#TIMES

TOP STORIES HEALTH CRIME POLITICS BUSINESS TECH

BUSINESS TECH AMSTERDAM VU VRIJE UNIVERSITEIT ANTI-CHEAT SOFTWARE » MORE TAGS
TUESDAY, 17 OCTOBER 2023 - 15:20

Anti-cheating software was not biased against VU student's skin color: Ruling

A student from the Vrije Universiteit (VU) in Amsterdam was not discriminated against by the anti-cheating software used by the university during exams due to her skin color. The student [filed a complaint](#) alleging that the program Proctorio had difficulty detecting her due to her dark skin tone. However, the Netherlands Institute for Human Rights rejected her claim in a non-binding ruling on Tuesday.

During the Covid-19 crisis, exams at the VU were often taken online. To prevent fraud, students had to install anti-cheating software on their computers. Before they were given access to the exam questions, they had to go through several checks, including one which used a webcam. Part of the software's role was to recognize the candidate's face

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World

Insight - Amazon scraps secret AI recruiting tool that showed bias against women

By Jeffrey Dastin

October 11, 2018 2:50 AM GMT+2 · Updated 5 years ago

SAN FRANCISCO (Reuters) - Amazon.com Inc's machine-learning specialists uncovered a big problem: their new recruiting engine did not like women.

The team had been building computer programs since 2014 to review job applicants' resumes with the aim of mechanizing the search for top talent, five people familiar with the effort told Reuters.



Ethical guidelines on the use of artificial intelligence (AI) and data in teaching and learning for Educators

1 Human Agency and Oversight

2 Transparency

3 Diversity, non-Discrimination and Fairness

4 Societal and Environmental Wellbeing

5 Privacy and Data Governance

6 Technical Robustness and Safety

7 Accountability

1



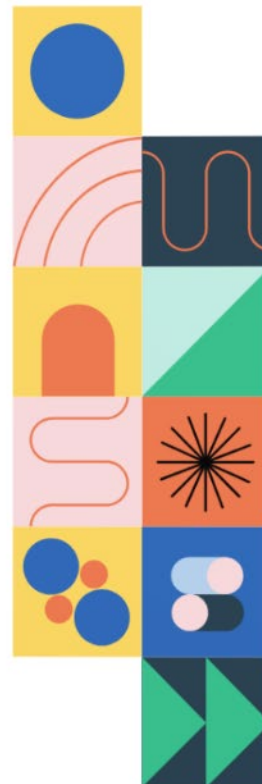
Human Agency and Oversight

- Is the teacher role clearly defined so as to ensure that there is a teacher in the loop while the AI system is being used? How does the AI system affect the didactical role of the teacher?
- Are the decisions that impact students conducted with teacher agency and is the teacher able to notice anomalies or possible discrimination?
- Are procedures in place for teachers to monitor and intervene, for example in situations where empathy is required when dealing with learners or parents?
- Is there a mechanism for learners to opt-out if concerns have not been adequately addressed?
- Are there monitoring systems in place to prevent overconfidence in or overreliance on the AI system?
- Do teachers and school leaders have all the training and information needed to effectively use the system and ensure it is safe and does not cause harms or violate rights of students?

Want to read more?



Reading guide



This magazine is a selection from the vast amount of content available within (and outside) the Netherlands on the use of AI in education.

Over the past summer, content was provided by more than 50 people, from which a selection was made by an Editorial Board. The content is grouped into 6 themes:

- AI IN EDUCATION
- AI AND TESTING
- INSPIRING EXAMPLES
- AI AND ETHICS
- AI AND (THE PERSPECTIVE OF) THE STUDENT
- GUIDELINES AND POLICY AROUND AI

Where necessary, submitted articles have been provided with an introduction to give a bit more context to the article.

This magazine is explicitly a collection of largely pre-existing content, enriched with contributions written specifically for this magazine and conducted interviews.

Thus, the articles do not reflect 'the view of the Editorial Board' but should primarily be seen as tools to inspire the reader and help them take their own steps with AI in education.

And also, because it usually concerns 'pre-existing content', in some places students are referred to and in others pupils, in some places teachers and in others lecturers. However, the editorial board believes that all the information in this magazine is of interest to everyone in the Netherlands who teaches!

Not all submitted content is included in this magazine. We have conceived the idea to set up a community for teachers, specifically on the subject of AI in education, as a follow-up to this magazine. There, we also want to make available all the content that didn't make it into the magazine this time and also offer teachers the opportunity to share content and experiences with each other. Keep an eye on the Npuls website for these (and other) next steps!

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