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Technologies in Education

Developing Resources on ICT Competencies of University Teachers: Challenges of AI-based Technologies

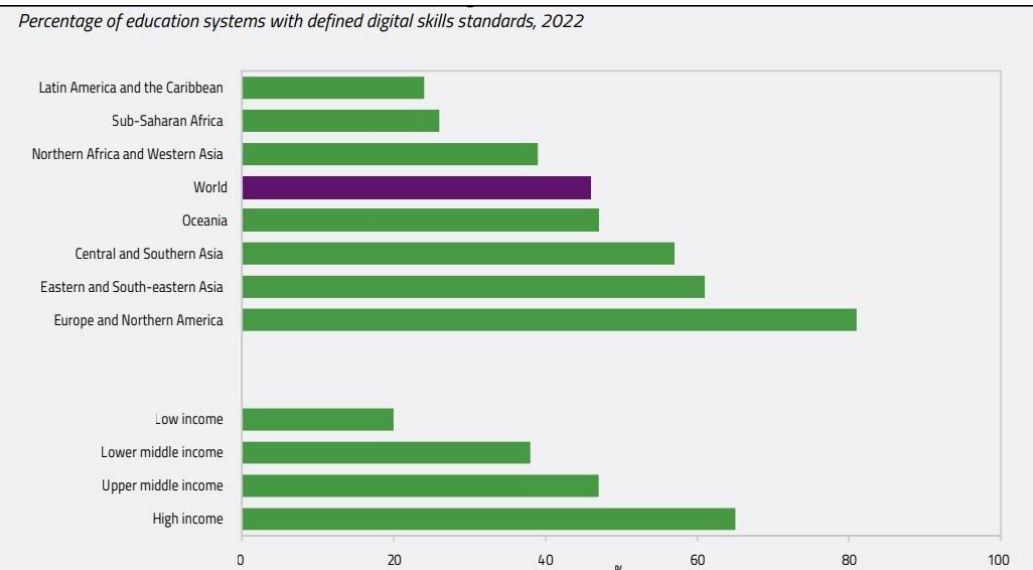
Tatiana Murovana
UNESCO IITE

2023 IIOE Global Partners Summit “Transforming Higher Education in the
Age of AI”

7–9 December 2023, Shenzhen, China

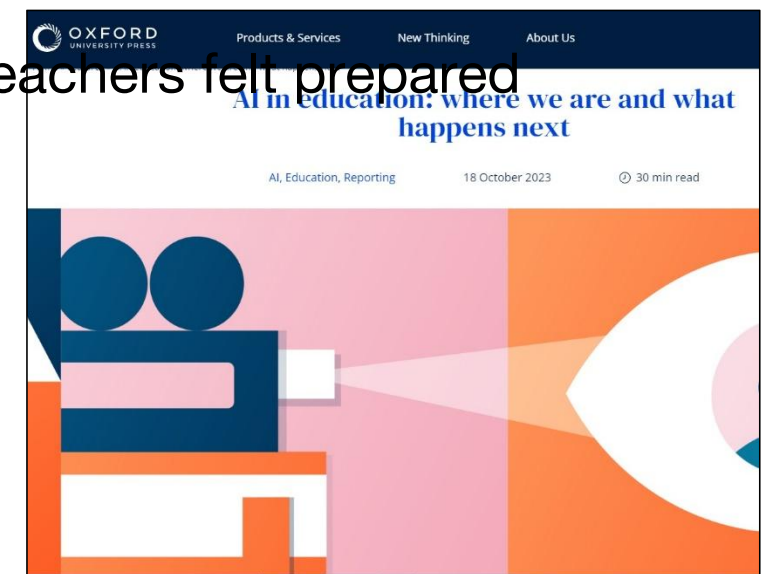
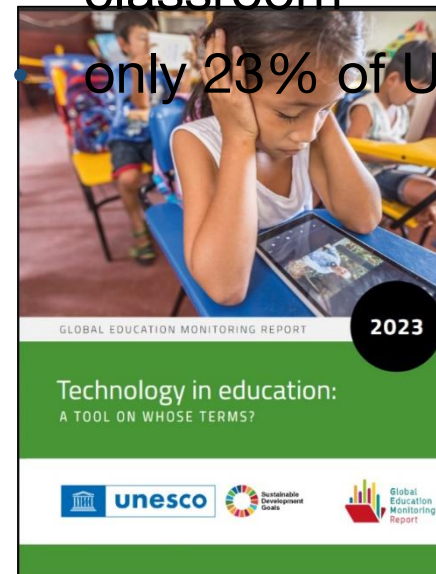
UNESCO 2023 Global Education Monitoring Report “Technology in Education: a Tool on Whose Terms?”:

- 90% of countries aspire to develop digital skills
- 54% have established digital skills standards



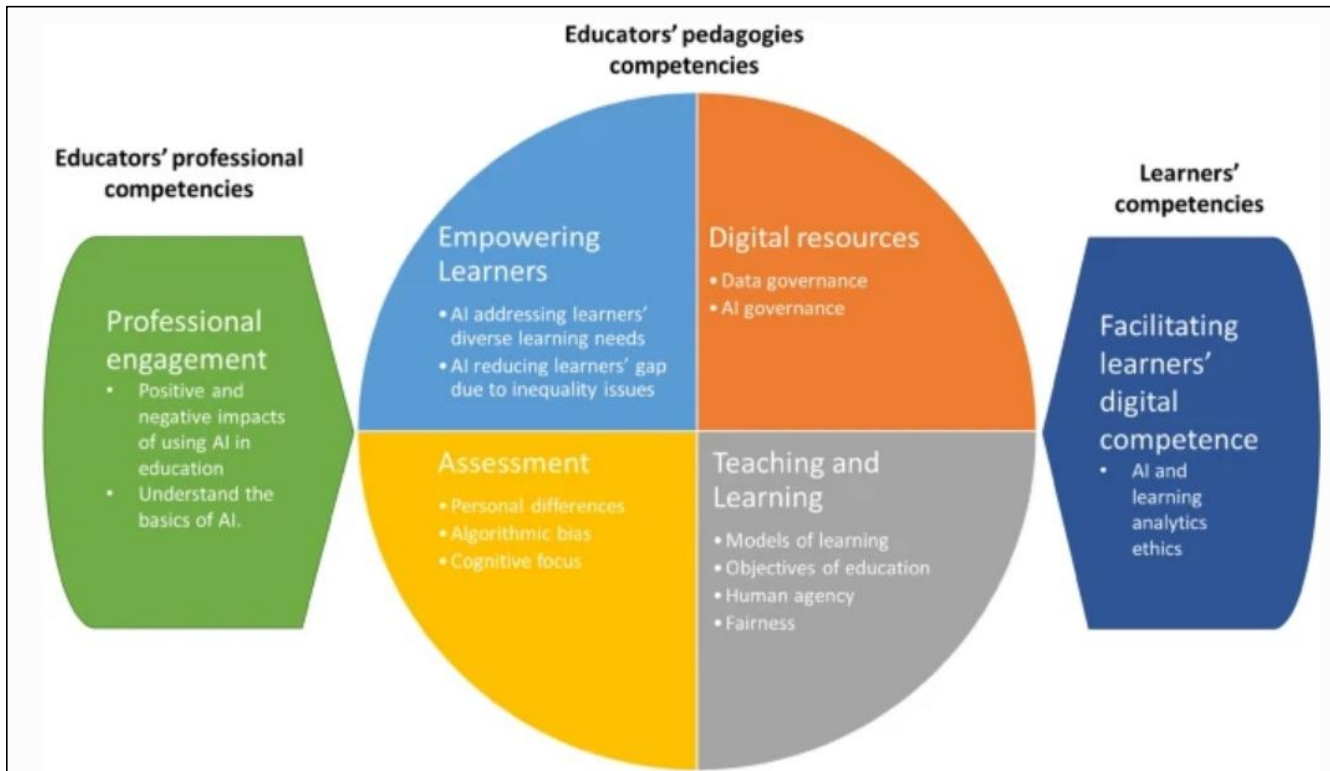
The Oxford University Press Report “AI in Education: Where We Are and What Happens Next” :

- teachers are cautiously optimistic about AI in education
- Teachers need more help to prepare for the impact AI-enabled tools will have in the classroom

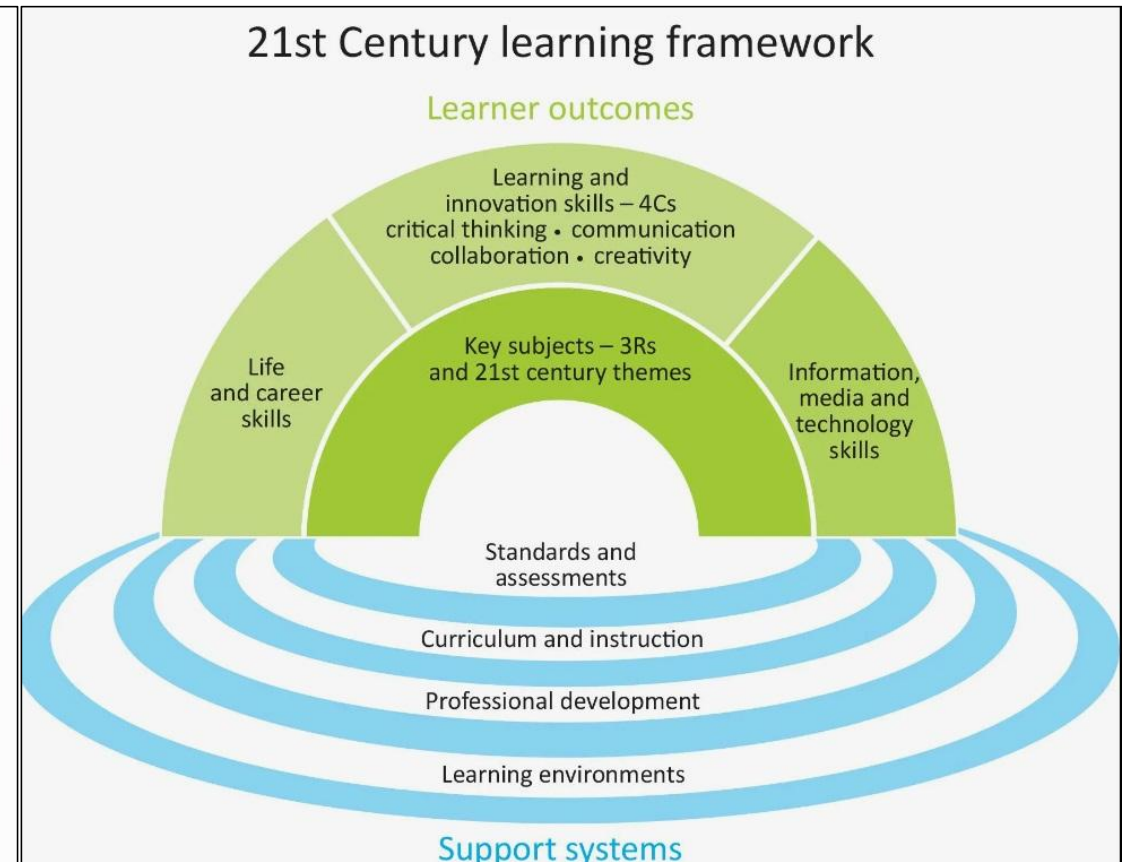


only 23% of UK teachers felt prepared

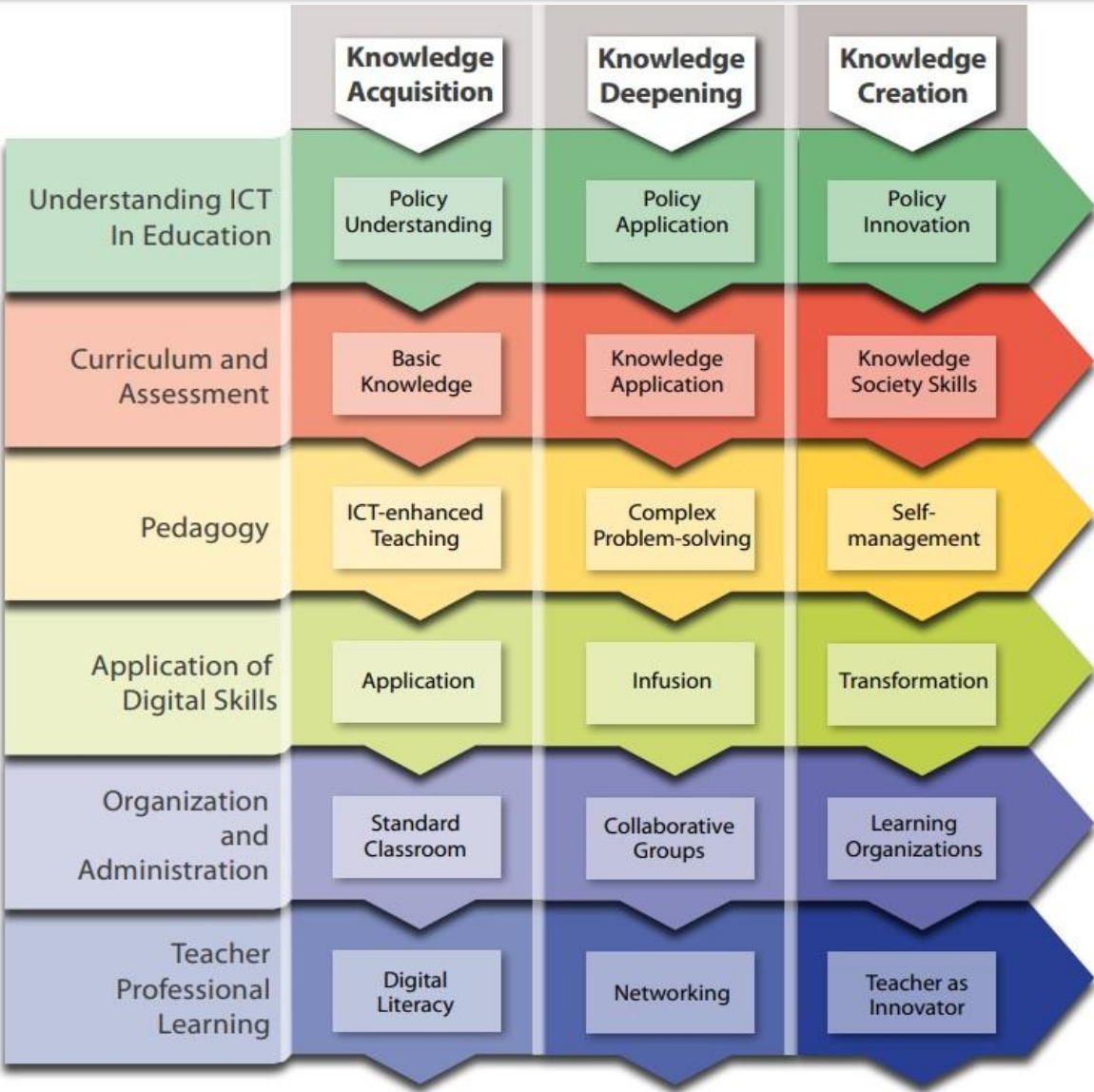
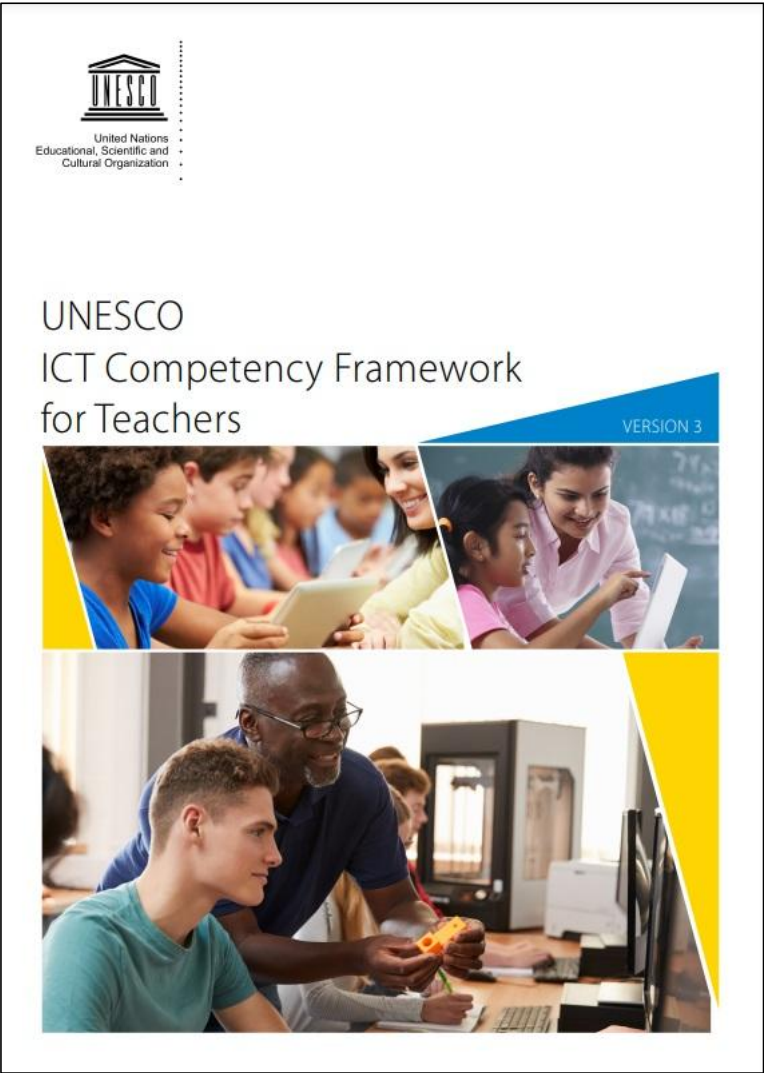
ICT Competencies Frameworks



DigCompEdu framework for teachers' AI competency (European Commission, [2022](#))



UNESCO ICT Competency Framework for Teachers



Challenges to be considered

- **Changes are so rapid:** new technologies require constant updating of competencies
- **Digital divide:** the uneven rollout of AI across education risks exacerbating the digital divide
- **To keep up with the shift in pedagogy:** technologies are changing approaches to teaching and learning
- **Robust evidence on digital technology's added value in education:** good, impartial evidence on the impact of education technology is in short supply
- **Limited institutional capacities for mass renewal of ICT competencies:** the teachers' professional development institutes are often more conservative institutions than the educational organizations themselves

Challenges to be considered

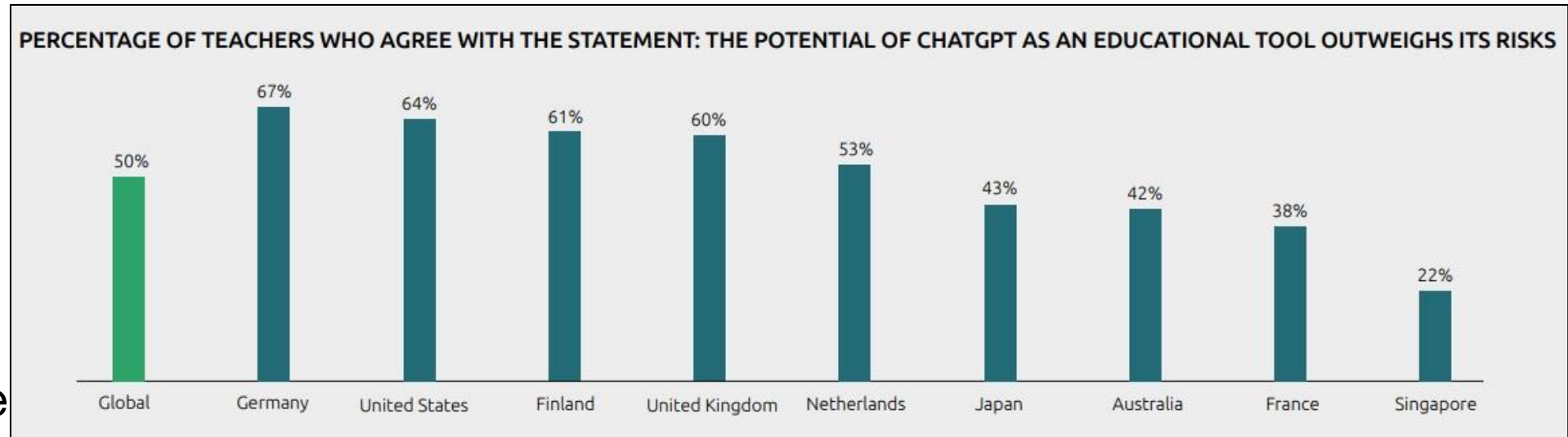
- **The aggravation of ethics and safety issues:** apart from technical skills, developing a positive leadership attitude and ethical mindset is important for educators to use AI technologies for teaching
- **[Potential] changes in the labor market structure caused by the widespread introduction of AI technologies:** even in regions with reasonable digital access, anticipated teacher shortages mean there is a risk that cheap or free AI tools are seen as an adequate substitute for teacher-led instruction and the acquisition of skills and knowledge
- **Digital skills are hard to measure:** there are multiple definitions of ICT or digital skills
- **Teachers' workloads are so high:** the burden on teachers, who are forced to adapt their working methods to automated technologies, is constantly increasing

Challenges to be considered

Capgemini Research Institute's Report
“Future-Ready Education”: the adoption of and attitudes towards AI are not consistent across the world.

The percentage of teachers agree that curricula and assessments need to adapt to the emergence of AI:

- 56% globally
- 70% in the US
- 69% in the UK
- 36% in Japan
- 24% in Singapore



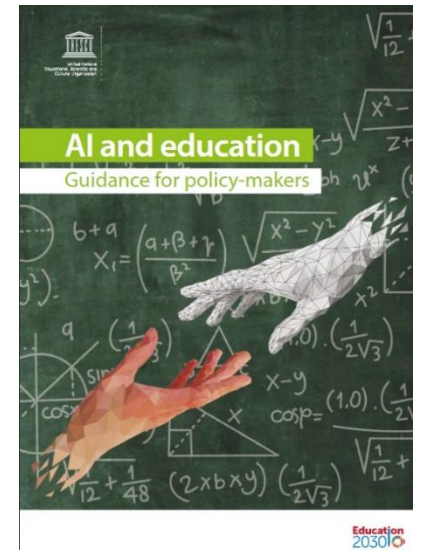
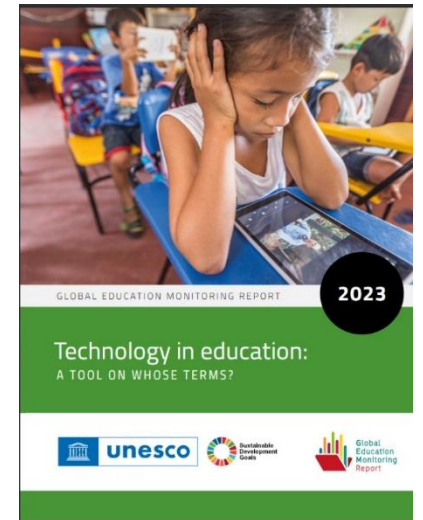
Value foundations for education resources development

UNESCO 2023 Global Education Monitoring Report “Technology in Education: a Tool on Whose Terms?”:

- the importance of learning to live both with and without digital technology
- to let technology support, but never supplant, the human connection on which teaching and learning are based
- the focus should be on learning outcomes, not digital inputs
- education should drive technology—not the other way around

UNESCO Guidance for Policy-Makers “AI in Education”:

AI shouldn't be used where it can impact the development of cognitive and social skills gained through real-life observations, interactions with other human beings, and practical experimentation



Joint UNESCO IITE and UNESCO-ICHEI project

“Digital transformation of higher education in Central Asia”

Aims: to contribute to enhancing the quality of higher education through the use of digital technologies and educational resources in the Russian-speaking countries including Central Asia

Duration: Oct 2021 – Dec 2023

Target region: Central Asia other Russian-speaking countries

Outputs:

- Two online training courses for HEIs faculty members
- Analytical report on competencies of higher education workforce developed within the trainings

Thematic areas:

- Learning Analytics
- Media and Information Literacy



Thank you

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Digital Pedagogy and Learning Materials
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