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The Role of Artificial Intelligence (AI) Related to Open Educational Resources (OER)

ICDE OER Advocacy Committee



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AGENDA

7 November 2023

85TH
Anniversary

85 years of making education
accessible to all.



Setting the Scene

ICDE OER Advocacy Committee 2023-2024

UNESCO OER Definitions &
Recommendations

UNESCO AI and Ethics

Aligning OER and AI

Challenges of Using AI to create OER

Implementing AI Principles when using OER

“Wall of Wonder” - workshop



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ICDE OERAC MANDATE

2023-2024

85TH Anniversary

85 years of making education accessible to all.



Support the development of ICDE Global Advocacy Campaign for Open, Flexible and Distance Learning (OFLD) through several suggested contributions and tasks

Support the ICDE World Conference 2023 and ICDE Leadership Summit 2024 through one or several suggested contributions and tasks

Support key ICDE projects related to OER such as the ICDE OER Francophone Africa initiative, the ENCORE+ project and the ICDE Global Doctoral Consortium



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MEMBERS/AMBASSADORS OF THE ICDE OER ADVOCACY COMMITTEE 2023-2024



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ICDE ADVOCACY COMMITTEE 2023-2024

WORLDWIDE ACTIVITIES



Members/Ambassadors of the ICDE OER Advocacy Committee
2023-2024



 OER
ADVOCACY
COMMITTEE



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UNESCO OER RECOMMENDATION

... Recommendation 2019

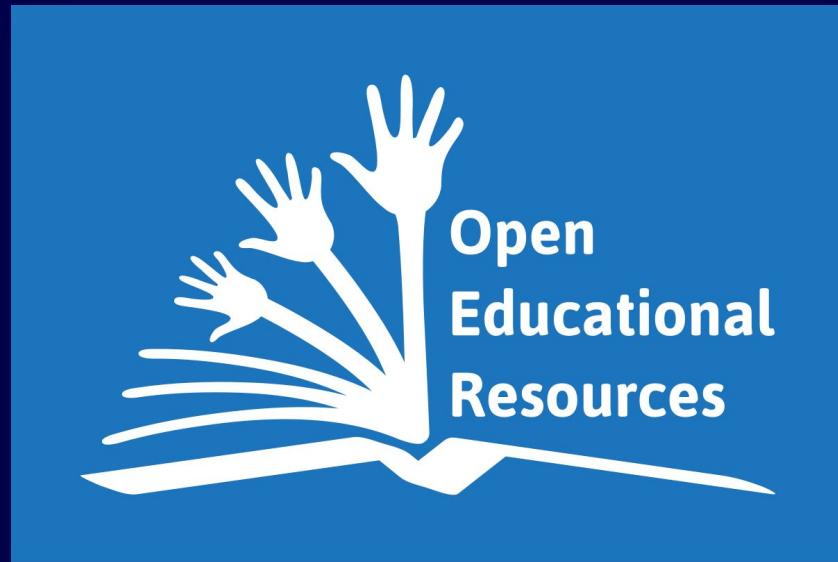
Definition

Overall Aim

Recommendation

5 Key Areas

Ethical Principles



<https://www.unesco.org/en/artificial-intelligence/recommendation-ethics>



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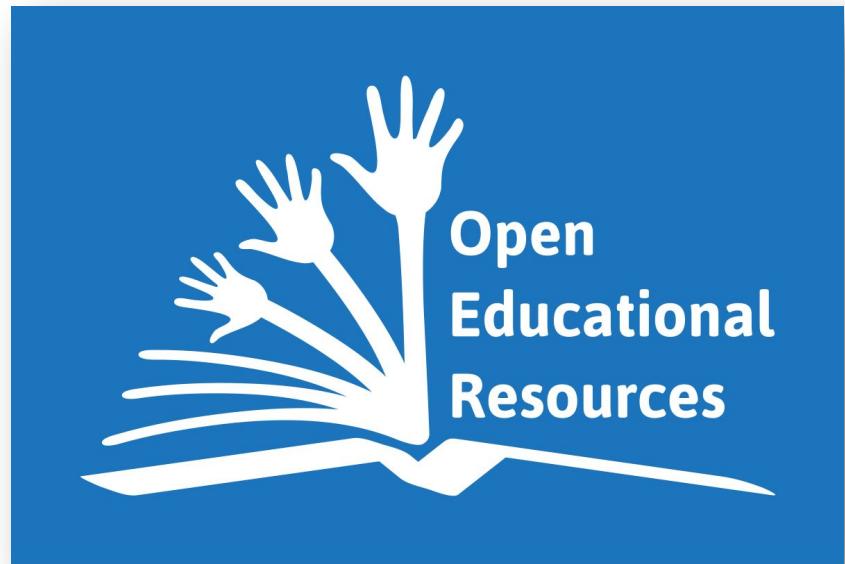
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UNESCO OER RECOMMENDATION

Definition 2019

Open Educational Resources (OER) are learning, teaching and research materials in any format and medium that reside in the public domain or are under copyright that have been released under an open license, that permit no-cost access, re-use, re-purpose, adaptation and redistribution by others



UNESCO OER RECOMMENDATION

Overall Aim

Building on the Ljubljana OER Action Plan 2017 to mainstream OER to help all Member States to create inclusive knowledge societies and achieve the 2030 Agenda for Sustainable Development, namely SDG 4 (Quality education), SDG 5 (Gender equality), SDG 9 (Industry, innovation and infrastructure), SDG 10 (Reduced inequalities within and across countries), SDG 16 (Peace, justice and strong institutions) and SDG 17 (Partnerships for the goals)

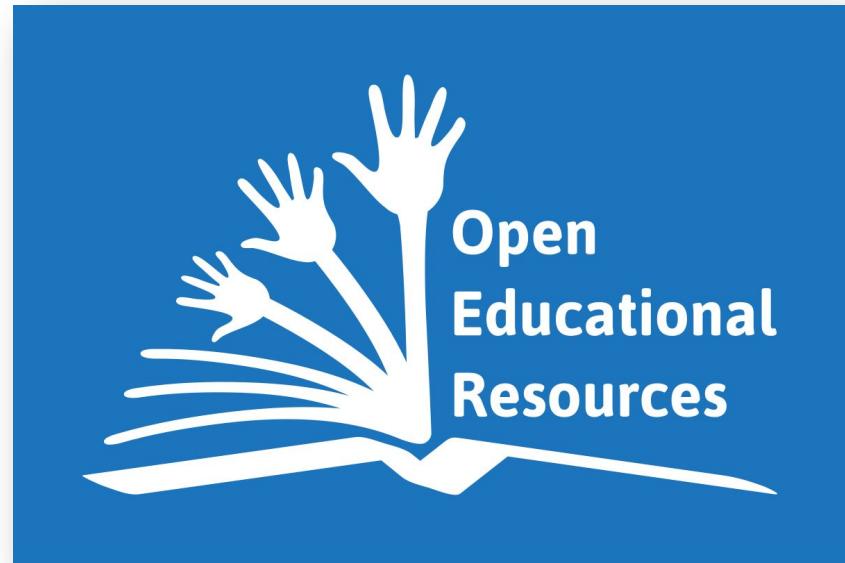


UNESCO OER RECOMMENDATION

Recommendation, 2019

The UNESCO recommendation report establishes a set of values in line with the promotion and protection of human rights, equity, social justice, inclusion, diversity, human dignity, ecosystem, and environmental sustainability

It advances essential principles such as transparency, accountability, and the rule of law online



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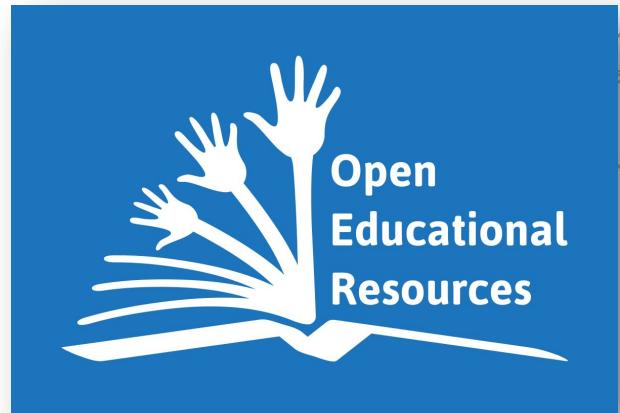
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UNESCO OER Recommendation

5 Key Areas

1. Building capacity of stakeholders to create, access, re-use, adapt and redistribute OER
2. Developing supportive policy
3. Encouraging effective, inclusive and equitable access to quality OER
4. Nurturing the creation of sustainability models for OER
5. Promoting and reinforcing international cooperation



https://www.unesco.org/en/legal-affairs/recommendation-open-educational-resources-oer?TSPD_101_R0=080713870fab200027ee08b7f0f675708aec24ae846f23b5ed09b10f05baab65db7d83fbdc84ca710834d3daea1430009f01d2b413970fbe8633f37aebaacf88408c2949ed8ed6ee01541054d8c6ecf42f69db7374da0793aef410053db12dc1



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UNESCO & AI

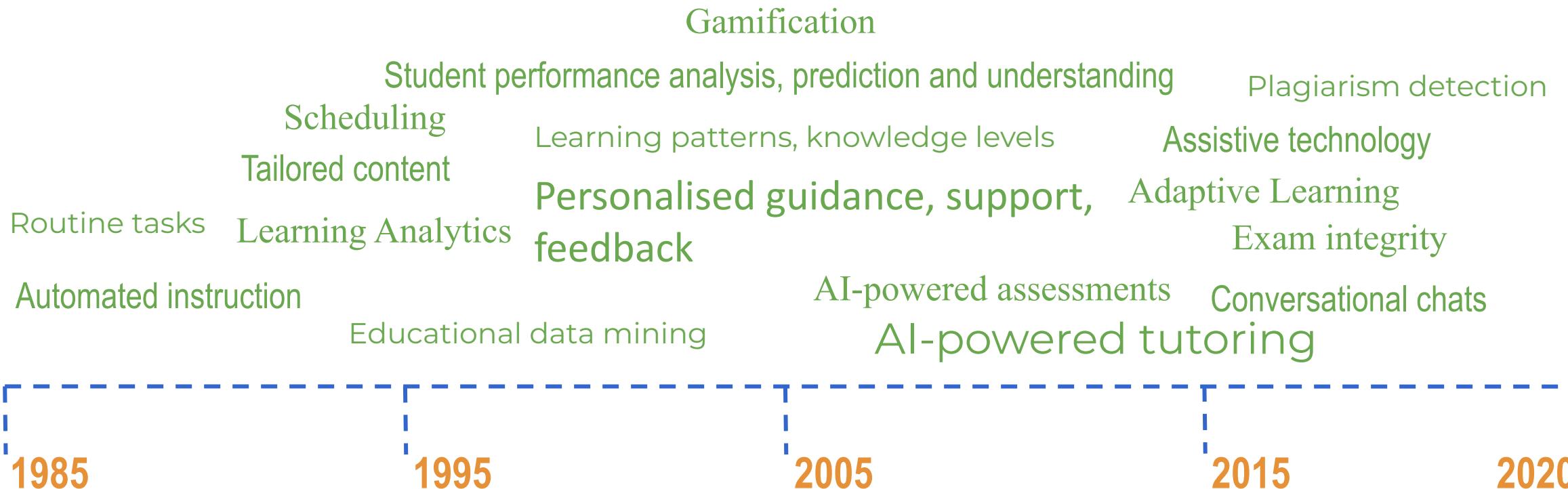
...Ethical Principles

Rapid technological advancements in Artificial Intelligence (AI), as well as other advancing technologies such as robotics, cloud computing, and the 'Internet of Things', are **transforming** disciplines, economies, and industries, and **challenging** ideas about what it means to be human



ARTIFICIAL INTELLIGENCE INTERACTIONS

...with Education



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ALIGNING AI MODELS

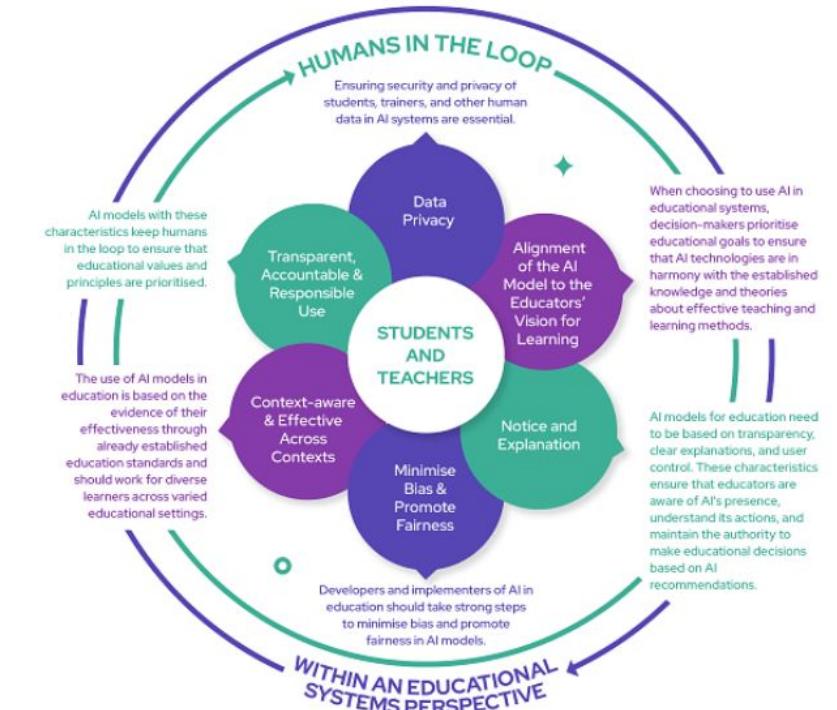
...To a shared vision for education

AI is grounded in models developed by individuals

AI is only an approximation to reality

Still need humans to define the use of AI and map it to educational goals

6 desirable qualities of AI tools to align to education, and to question how AI-enabled the educational environment actually is



© Digico Toolkit



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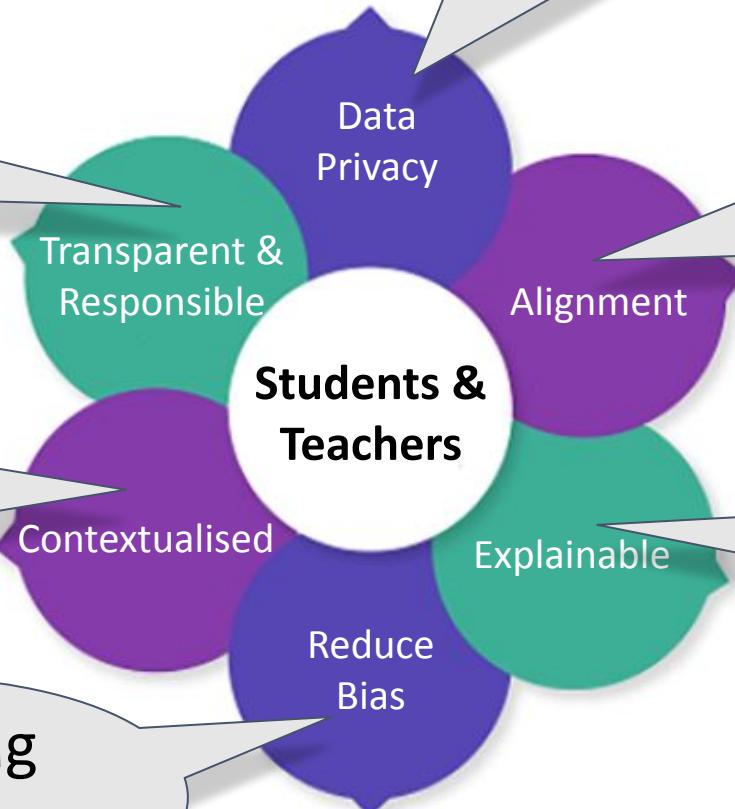
ALIGNING AI MODELS

...To a shared vision for education

... to keep '*Humans in the Loop*' with principles & values

... to be effective in existing educational systems

... to take strong action and promote fairness



... to apply to all human data in the AI system

... to educational goals in harmony with teaching

... to be clear that AI is being used

<https://digico.global/toolkit-aligning-ai-models-to-a-shared-vision-for-education/#:~:text=In%20this%20Toolkit%2C%20we%20propose,function%20in%20their%20educational%20environment>

CHALLENGES OF USING AI

... to Create OER

Quality Assurance

Bias and fairness

Customisation and
personalisation

Learner privacy

Accessibility

Lack of human touch

Costs and sustainability

y



Source: OpenAI, 2023

Technical infrastructure
Pedagogical integration
Training and professional
development
Intellectual Property and Licensing
Adaptability to diverse learning
styles



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CHALLENGES OF USING AI

... to Create OER - Summary

Addressing these challenges requires **collaboration** among educators, researchers, policymakers, and technologists to ensure that AI-enhanced OER contributes positively to the field of education while upholding the **principles** of openness, inclusivity, and quality.



Image created with generative AI software genCraft.com

OpenAI, (2023)



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HOW AI APPS SUPPORT OER CREATION

Content generation
Language translation and localisation
Content enhancement
Adaptive learning materials
Content creation
Data analytics
Interactive simulations

Auto-Tagging and Metadata Generation
Voice and speech recognition
Content recommendation
Peer review and feedback
Accessibility features
Plagiarism detection
Natural Language Processing (NLP)
Content versioning and updating



Source: OpenAI, 2023



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HOW AI APPS SUPPORT OER CREATION

By harnessing the power of AI in these ways, educators and content creators can not only produce **high-quality OER** more efficiently but also enhance the accessibility, personalisation, and overall **effectiveness** of open educational resources.



Image created with generative AI software genCraft.com

OpenAI, 2023



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IMPLEMENTING AI PRINCIPLES

... When creating and using OER content

Professional



Ethical



Sustainable



Equitable



Images created with generative AI software genCraft.com



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IMPLEMENTING AI PRINCIPLES

...When creating and using OER content

Professional:

Provide writing support (create draft text, check spelling, grammar, ensure use of plain language...)

Find/check suitable sources

Personalise learning for different contexts

Encourage public annotation of different texts/resources

Foster collaboration between learners and teachers, regardless of location



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IMPLEMENTING AI PRINCIPLES

...When creating and using OER content



Ethical:

Ensure transparency when using AI - how/where has it been used?
(And how has it supported learning?)

Foster critical thinking to review accuracy, credibility, and relevance of AI-created content (including citations!)

Understand how AI responds to different prompts to create OER content

Fine tune AI so that it doesn't replicate existing biases within OER content creation



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IMPLEMENTING AI PRINCIPLES

...When creating and using OER content

Sustainable:

Use to help brainstorm ideas

Summarise information - avoid using '*as is*'

Use to generate questions for learners

Provide real-time feedback (e.g. in formative tasks/assessments)

Empower learners to be OER creators

Build improvements in digital literacy

Suggest learning pathways/adaptive learning for individual students

Generate ideas for funding to keep local OER initiatives alive



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IMPLEMENTING AI PRINCIPLES

...When creating and using OER content

Equitable:

- Provide supplementary reading/writing support
- Check simple language is used for accessibility
- Use captioning and/or transcripts for video resources
- Translate content into other languages
- Ensure that AI is a force for equity and quality



Coming next...



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“WALL OF WONDER”



Image created with generative AI software genCraft.com



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“WALL OF WONDER” Workshop



During the next 30 minutes we will have a series of small group discussions around the 5 UNESCO OER Recommendation areas:

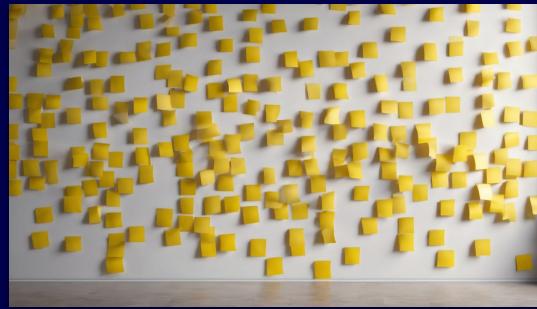
1. Capacity Building
2. Policy
3. Models
4. Encouragement and Access
5. International Collaboration

There will be 1 question relating to each of these 5 areas and you will be guided to answer each in turn - in an '*Agile*' way



“WALL OF WONDER”

Group ‘Rapporteur’



Working in one of 5 small groups, your guide will be an OER Advocacy Committee member who will act as both Facilitator and Rapporteur, helping you to speedily address each of the key questions

You will visit each Rapporteur in turn, and spend a **maximum of 5 minutes** brainstorming your ideas using post-it notes provided

When the bell sounds, you will move across to the next ‘Rapporteur’ and a new question until all are addressed



“WALL OF WONDER”

Key Area Questions



1. How can AI be used for capacity building?

2. What policies must be in place that relate to OER and AI?

3. Which models are needed to support the creation and use of OER?

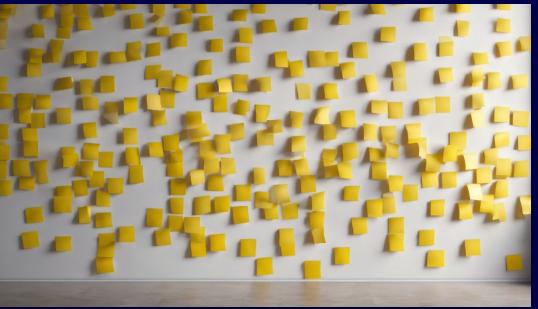
4. How can we use AI to encourage access to quality OER?

5. What can we do to enable better international collaboration related to OER and AI?



“WALL OF WONDER”

Take Away



When all 5 questions are answered, please return to your seats for the ‘wrap up’ and your virtual ‘take-away’

Please wait to be allocated to your groups...



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“WALL OF WONDER”

Final Question 6 to everyone...

https://padlet.com/JFIA/ICDE_Q6

“Where are our biggest challenges in using generative AI tools to create OER content?”



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Thank you!

Ossiannilsson, E., de la Pena, Bandalaria, M.,
Blomgren, C., Cheniti, L., Fawcett, J., Goode, C.,
Gusmão, C., Kajumbula, R., Mansour, C., Ulloa
Cazarez, R., Zhang, X.



29th ICDE World Conference
Costa Rica, 2023

**Joining Hands in Peace
for the Futures of Education**



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TAKE US BACK TO WORK WITH YOU AND SPREAD THE WORD ABOUT ICDE AND OER - WE CAN DO THIS TOGETHER!



<https://me-qr.com/f/ICDE-OERAC>



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85TH Anniversary

*85 years of making education
accessible to all.*

