

# Sustainable Development Goals and Technology-enhanced Learning

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# SUSTAINABLE DEVELOPMENT GOALS



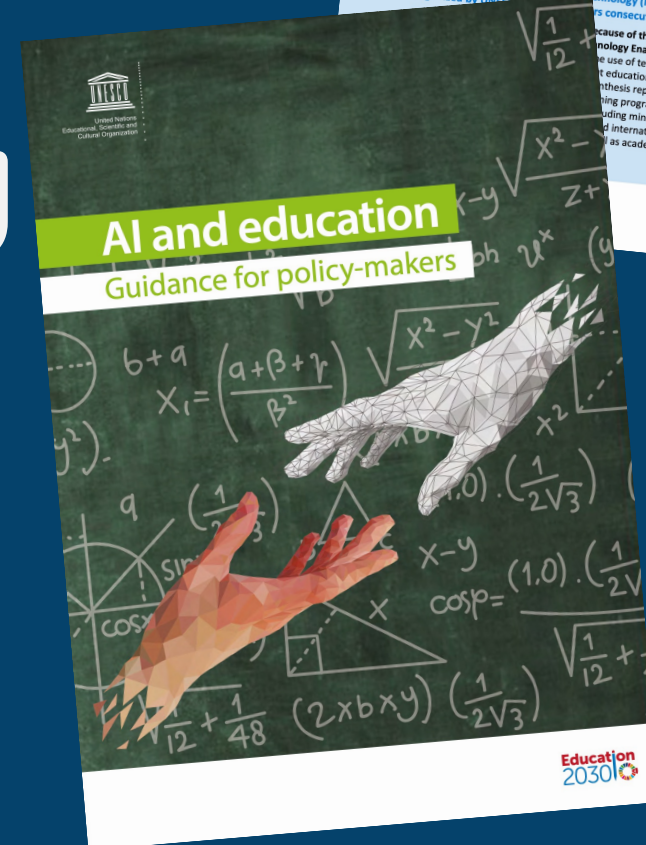
<https://www.un.org/en/sustainable-development-goals>



- **free education for all children**
- **joint learning outcomes**
- **affordable and quality education for adults**
- **skills for employment, decent jobs and entrepreneurship**
- **equal access to all levels of education**
- **both men and women achieve literacy and numeracy**
- **supply of qualified teachers**

# UNESCO

→ Mobile Learning  
→ AI in Education



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# 2019: Beijing Consensus on AI and Education – 36 Action Points

- Educational opportunities for **teachers**
- Review and define **teachers' roles** and required competencies
- **AI literacy skills**
- Create a **massive pool of local AI professionals**
- AI for **flexible learning**
- AI for the recognition and transfer of **individual learning outcomes**



# UNESCO AI in Education

- Data **ethics** and **algorithmic biases**
- Gender-equitable AI and AI for **gender equality**
- The **use of AI** in education
- Impact of AI on **teacher roles**
- Impact of AI on **learner agency**

# UNESCO Mobile Learning

- Digital competencies
- Disruption of educational processes
- Improve the quality of learning
- Computer, mobile phone, & TV a lifeline to education

<https://unesdoc.unesco.org/ark:/48223/pf0000377753>  
<https://unesdoc.unesco.org/ark:/48223/pf0000261278>



**This calls  
TEL researchers  
to action**

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# Solo-Exercise 1a: Use Cases

**What is your  
contribution to SDG4?**

# Solo-Exercise 1b: Use Cases

**What are the challenges for your contributions?**

**Solution-Problem  
Dilemma**

**Tools  
Compliance  
Education**

# Interoperability

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**Interoperability is about  
playing together**



# Interoperability in TEL

- SCORM (Packaging)
- IEEE LOM (Metadata/Discoverability)
- **IMS<sup>1</sup> LTI / LIS** (Access / Learner Information)
- IMS QTI (Assessment & Testing)
- IMS LD (Educational Design)
- ADL XAPI / TLA (Tracking)
- Caliper Analytics (Tracking)

# Interoperability in TEL

Year 2000 Problems

- SCORM (Packaging)
- IEEE LOM (Metadata/Discoverability)
- **IMS<sup>1</sup> LTI / LIS** (Access / Learner Information)
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*Year 2023 Problems*

**Granularity**

**Diversity**

**Use Cases**

**Educational Objectives**

**Organisations**

**Tools & Platforms**

# What is your part?

# Peer Exercise: Integrations

**How do you connect  
your results for a  
joint solution?**

**Keep changing  
Keep innovating**

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