

Higher Education Sustainability Initiative (HESI)  
**Futures of Higher Education and Artificial Intelligence Action Group – Concept Note**  
United Nations University

## 1. Background

Accelerated developments in Artificial Intelligence (AI), especially with the widespread adoption of generative AI applications such as ChatGPT, is hugely impacting the higher education sector. With the emergence of AI-powered applications and robots replacing human labour, it has become common that trained machines perform much better than the top 10% of human performers in most standardized tests including bar exams, university entrance exams ([OpenAI, 2023](#)) and adult literacy tests ([OECD, 2023](#)). Additionally, AI-enabled deepfake technologies have become so sophisticated that differentiating them from real images is increasingly difficult, influencing critical human decisions such as elections and financial investments. This rapid advancement of AI questions the long-term relevance of what schools are teaching today, compelling the higher education sector to reevaluate teaching, learning, research, engagement, and management and administration. Alarming, a [2023 UNESCO global survey](#) found that only fewer than ten per cent of schools and universities have developed institutional policies and/or formal guidance concerning the use of generative AI applications.

In the meantime, the progress towards the SDGs has been significantly stagnant. In 2023, the UN SDG progress report revealed that a mere 15 per cent of the 138 assessed targets are on track toward the 2030 while nearly half (48%) of the targets have no progress or even regressed below the 2015 baseline ([UN, 2023](#)). The sluggish progress is attributed to various global challenges such as the recent COVID-19 pandemic, climate change, biodiversity loss, widening inequality and political unrests. These interconnected global issues call for a fundamental shift and groundbreaking innovation to put sustainable development back on track.

In this regard, higher education institutions (HEI) play a crucial role in harnessing the potential of AI in accelerating sustainable development while mitigating its harms. HEIs can take the lead in exploring, examining and understanding the complexities that AI will bring to higher education and the education sector at large. This new role entails ensuring inclusive access to AI for all learners without widening technological divides and compromising data security; innovative use of AI to tackle challenges towards achieving a sustainable society; and ethical development of AI with the human rights at its core principle.

This Action Group under HESI serves as a transdisciplinary collaborative platform to build a knowledge base on the current trends, opportunities and risks that AI poses to higher education through the lens

of sustainable development. It aims to bridge the academic community with UN agencies through evidence-based and research-oriented recommendations and global guidelines for maximizing the potential of AI in achieving the sustainable future while closely scrutinizing the impact of AI in environment, employability and human rights. It seeks to establish a concrete mechanism that fosters synergies among key stakeholders in the fields of higher education, sustainability and AI, such as UNU AI Network, UNESCO, United Nations Academic Impact, Academic Council on the United Nations Systems, Global Digital Compact and other Actions Groups of HESI.

## 2. Priority areas and objectives

By fostering collaboration, sharing best practices, and developing evidence-based policies, this Action Group will explore both the potential benefits and threats of AI as a powerful tool to transform higher education in the following, but not limited to, priority areas and objectives:

- **Transformative teaching and learning:** To examine how AI-integrated curricula can enhance student learning outcomes and foster student competencies for future employment markets, and evolve to meet contemporary global challenges, including the integration of Environmental, Social, and Governance (ESG) principles and strategies for achieving a sustainable, resilient and inclusive society. It will also consider innovative delivery methods such as AI-driven personalized learning and the recognition of informal learning through micro-credentialing and blockchain technology to promote lifelong learning.
- **Transformative research and development (R&D):** To explore mission-oriented R&D that conjures innovative AI solutions to global challenges—such as climate change, renewable energy, biodiversity loss, sustainable cities, and social inequality, etc.
- **Transformative community and industry engagement:** To look into systematic mechanisms to enhance the use of AI to maximize Science, Technology, and Innovation (STI) transfer from academic institutions to communities and industries, particularly in areas corresponding to the SDGs.
- **Transformative institutional management and administration:** To scrutinize how AI can enhance the efficiency and effectiveness of higher education management and administration, while considering its impacts on educators' future employability.
- **Ethics, safety, and inclusivity:** To ensure the ethical, inclusive and equitable collection and storage of AI-generated data and responsible development and use of AI applications in educational settings, following ethical standards such as transparency, accountability, and respect for human rights.

### 3. Main activities (Provisional)

#### 1. Research

- Identify, review and assess AI use in the higher education sector, focusing on risks and opportunities that AI poses in relation to the 2030 Agenda
- Conduct case studies of innovative AI use for sustainability in higher education institutions across the globe

#### 2. Outreach

- Publish policy briefs, publications and newsletter to enhance Action Group impact and visibility
- Launch webinar series and podcast series to delve into nuanced topics related to AI and sustainability
- Present at key UN events such as HLPF, Summit of the Future and COP

#### 3. Membership

- Build a network among HESI partner organizations and foster active member engagement
- Extend reach to non-HESI members including experts and institutions that specialize in tech, sustainability, education, ethics, etc.

### 4. Coordinators

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**5. Partners: To be updated**

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