



# Transforming Higher Education in the Age of AI

## INTERNATIONAL INSTITUTE OF ONLINE EDUCATION (IIOE)

### Global Partners Summit

## From Policy to Practice: Implementing Effective Governance in AI-Enabled Higher Education

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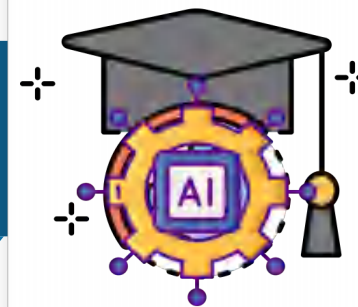
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# Introduction



01

In recent years, artificial intelligence has made significant strides in various industries, including education.



**AI  
is here  
to stay**

02

SpringerNature permits authors to use generative AI as long as they acknowledge it.

"Tools Such As ChatGPT Threaten Transparent Science; Here Are Our Ground Rules for Their Use," Nature, 2023.

03

In the very near future, AI models will be the primary way we access knowledge & HEIs will be where people learn to use technology effectively.

04

This new reality makes it clear that it's time for educators to master a new skill set relevant to AI and to teach those skills to their students.

# Highlights: International statistics overview

## Strategy

50%

In 2018

More than 50% of HEIs were actively working to integrate AI into their strategic plans.

40%

In 2021

More than 40% of higher education institutions listed *'Implementing AI'* as their top tech strategy.

10%

In 2023

A UNESCO global survey found that less than 10 % of universities had developed institutional policies concerning the use of generative AI.

47%

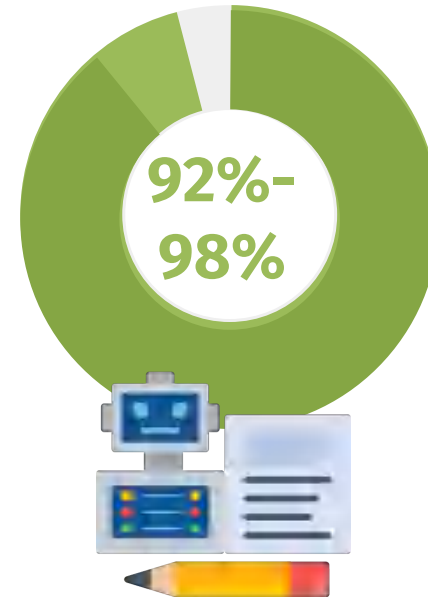
by 2025

47% of learning management tools will be enabled by AI capabilities.

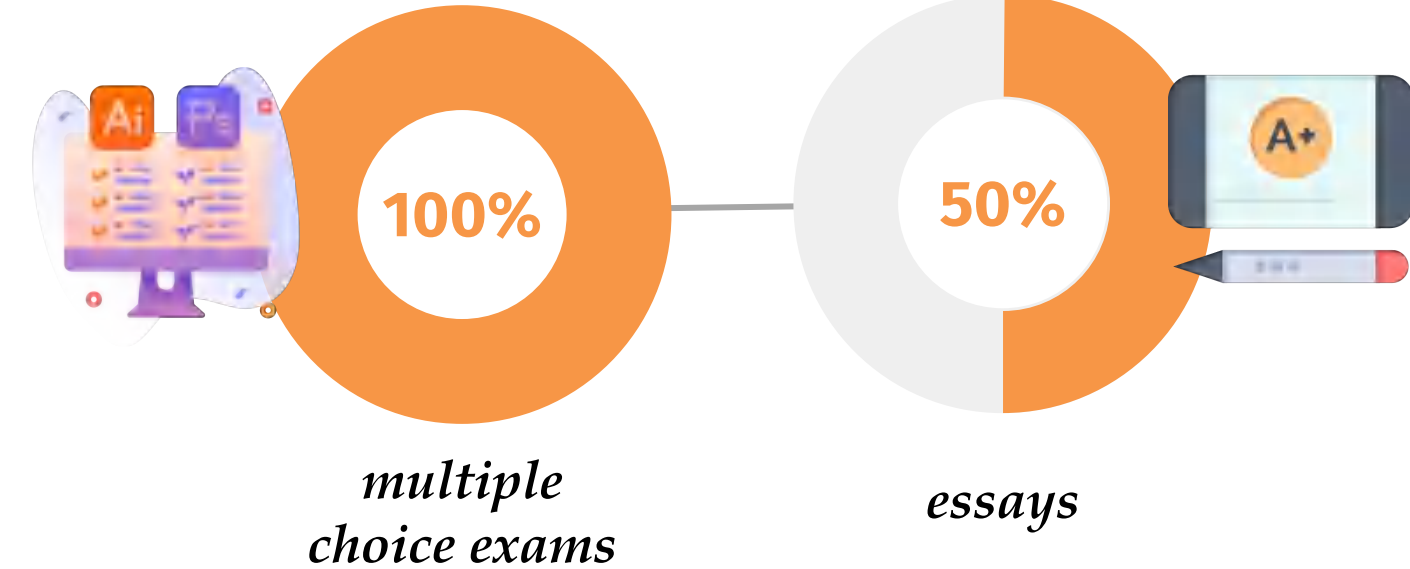
<https://zipdo.co/statistics/ai-in-higher-education/#:~:text=AI%20technologies%20in%20education%20are,of%20essays%20in%20higher%20education>

## Highlights: International statistics overview

### Assessment



AI-based automated essay scoring systems are found to agree with human scoring 92-98% of the time.



by 2030

AI will automate grading for nearly 100% of multiple-choice exams and 50% of essays in higher education.

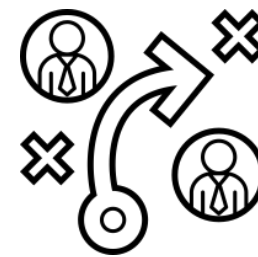
<https://zipdo.co/statistics/ai-in-higher-education/#:~:text=AI%20technologies%20in%20education%20are,of%20essays%20in%20higher%20education>

## Highlights: Status of Egyptian Universities

An Egyptian study done with the collaboration of the Ministry of Communications and Information Technology and Dell Technologies.

1 Faculty members are generally willing to adopt using AI.

### Conclusion



2 The use of AI in HEIs in Egypt has the potential to revolutionize the way students learn, professors teach, & institutions operate.

Interviews of Professors from AUC, GUC, AAST, Ain Shams and Cairo University were included.

*However, the adoption of AI in higher education institutions in Egypt is still in its early stages, and there are several challenges that need to be addressed, such as data privacy concerns, lack of infrastructure, and the need for upskilling educators, and the availability of a policy text or strategy.*

# Implication of AI-Enabled Higher Education

## Enhance the student experience and support learning:

1

Enhance efficiency, equity and accessibility

2

Allow tailored curriculum offerings (personalized learning)

3

Improve student learning experience and academic outcomes by using Intelligent tutoring systems (ITS):

- Designing and delivering lessons
- Crafting personalized learning paths for students, adapted to their unique needs and learning patterns
- Assessing student performance
- Analyzing student performance data to offer tailored feedback and guidance

4

Aid in creating educational content, including textbooks, assessments, and multimedia materials.

5

Automate assessment and provide adaptive testing opportunities

6

Enhance student engagement

7

Provide immersive and interactive learning experiences through incorporating AI-enabled virtual reality (VR), augmented reality (AR), and extended reality (XR) technologies into education

8

Support Learner Inclusion and Wellbeing

# Implication of AI-Enabled Higher Education

## Support academic and administrative management:

1

Automate tasks such as grading and tracking attendance, allowing educators to dedicate more time to teaching and mentoring students.

3

deliver personalized assistance to boosting administrative efficiency  
(Intelligent chatbots and virtual assistants)

2

Reduce the workload for administrative staff as AI systems can handle admissions, enrollment, course scheduling, resource allocation, and student services  
( Intelligent Campus and Administrative Support)

4

Lower costs of deployment

# Concerns and Argument about AI in Education

## ● Ethical concerns: data privacy, copyright and intellectual property issues:

- Students may use generative AI tools to cheat or plagiarize their written assignments and exams.
- Collecting and utilizing data in educational AI systems must be done responsibly, with strict safeguards for student privacy.

## ● The use of Gen AI may lead to a decline in students' writing & critical thinking skills:

as they become more reliant on automated tools to complete their work which could have a negative impact on the quality of education and ultimately harm the students' learning outcomes.

### Human Connection

As AI becomes more prevalent in classrooms, maintaining human interaction and emotional connections must remain a priority.

## ● Limited resources

lack of technological infrastructure for emerging economies

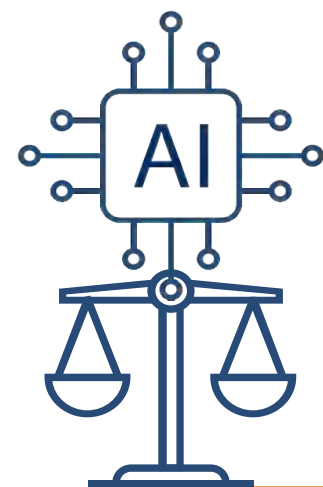
### Teacher Training

Educators need support and training to effectively integrate AI tools into their teaching practice.



## *Rational for comprehensive AI policy in higher education*

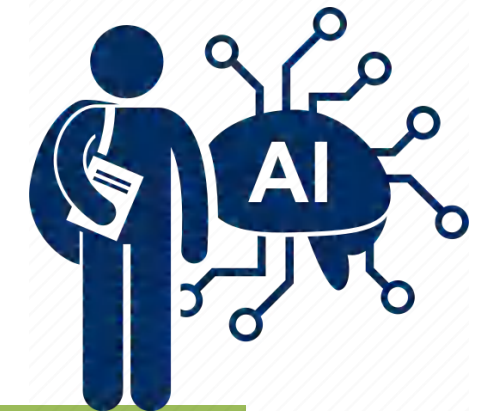
In view of these and other concerns surrounding generative AI, we shall work on comprehensive AI education strategies and policies to provide:



Responsible  
governance of AI  
technologies



Clear guidance  
on AI usage in  
education



# UNESCO recommendations for developing AI education policy framework

UNESCO provides recommendations HEIs' policy makers as a basis for developing AI education policy framework for university teaching and learning:

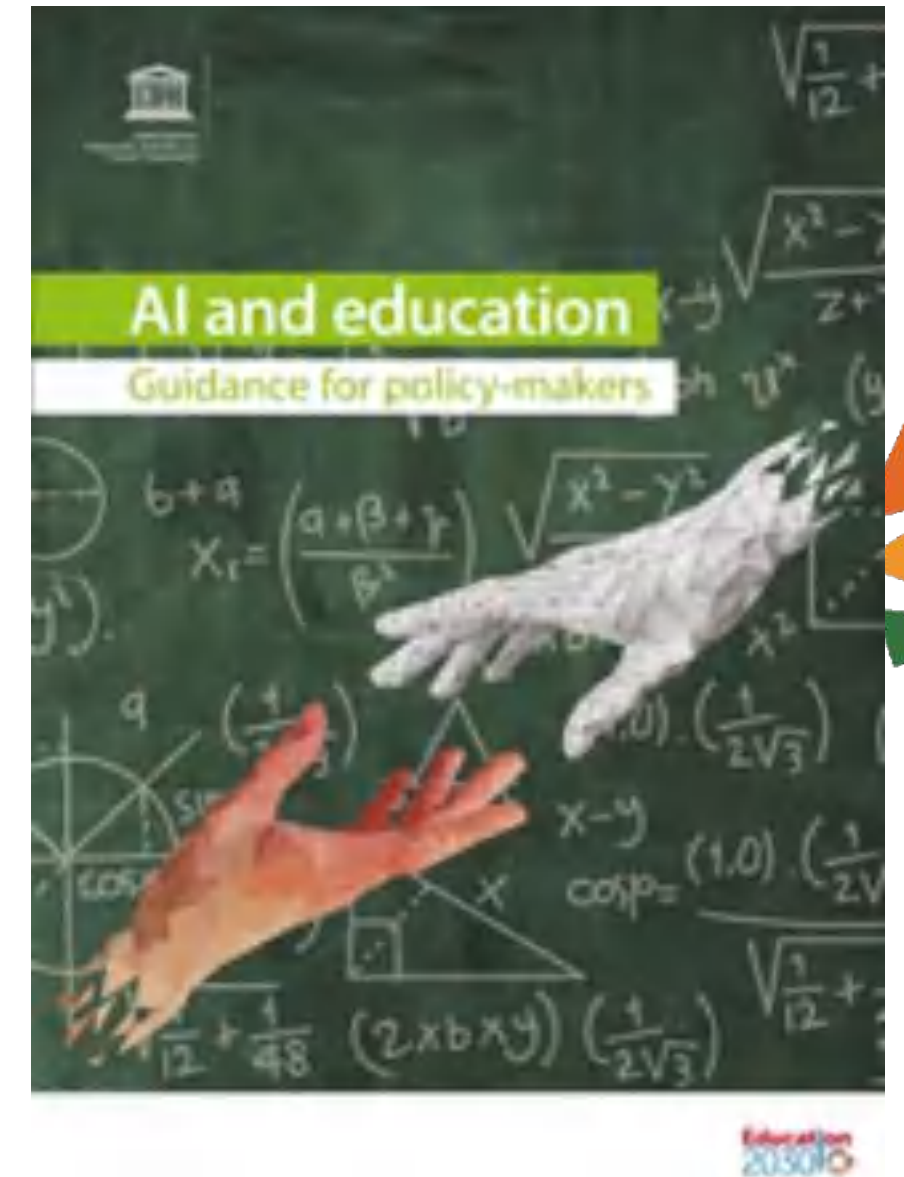
Interdisciplinary planning and inter-sectoral governance

Encouraging local AI innovations for education

Policies on equitable, inclusive, and ethical use of AI

Pilot testing, monitoring and evaluation, and building an evidence base

Develop a master plan for using AI for education management, teaching, learning, and assessment

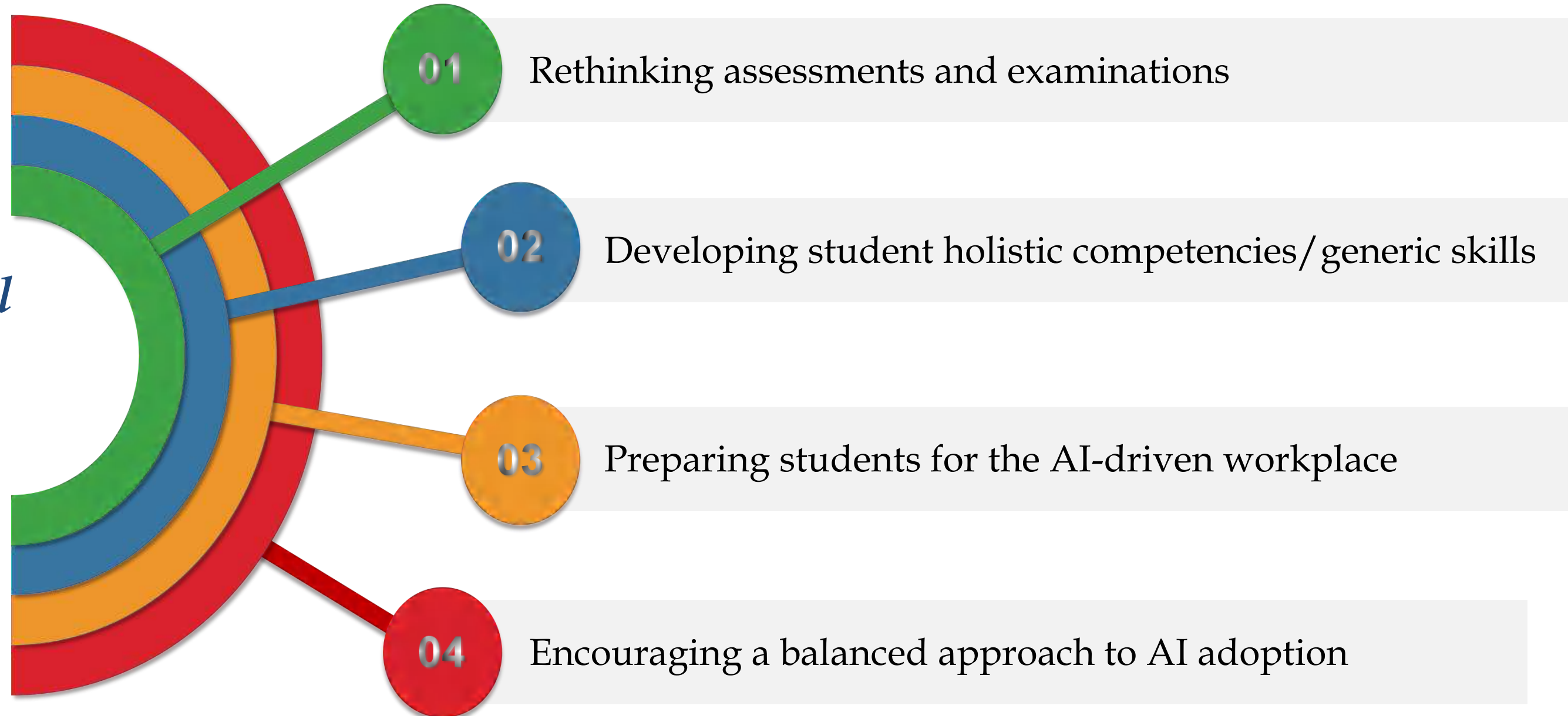


# AI Ecological Education Policy Framework

## KEY AREAS

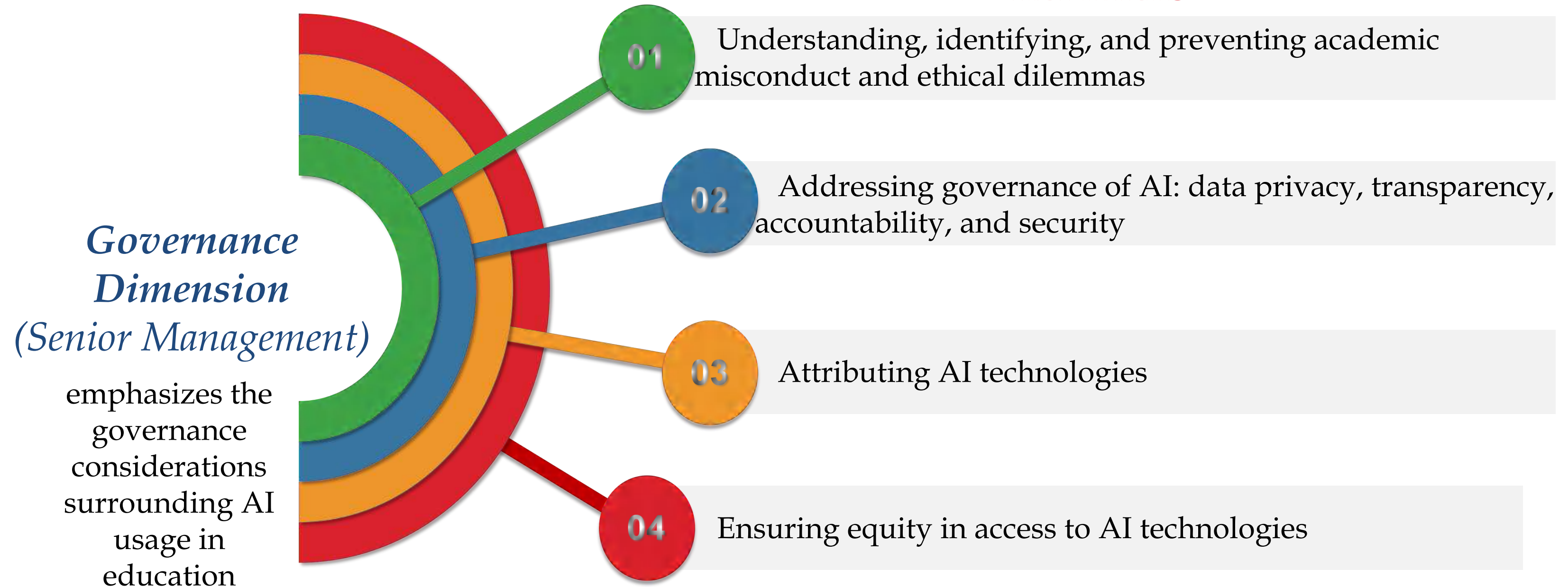
### *Pedagogical Dimension (Teachers)*

focuses on  
teaching &  
learning  
aspects of AI  
integration



# AI Ecological Education Policy Framework

## KEY AREAS



# AI Ecological Education Policy Framework

## KEY AREAS

*Operational  
Dimension*  
(Teaching & Learning/ IT staff)

concentrates on  
the practical  
implementation  
of AI in  
university  
settings

01

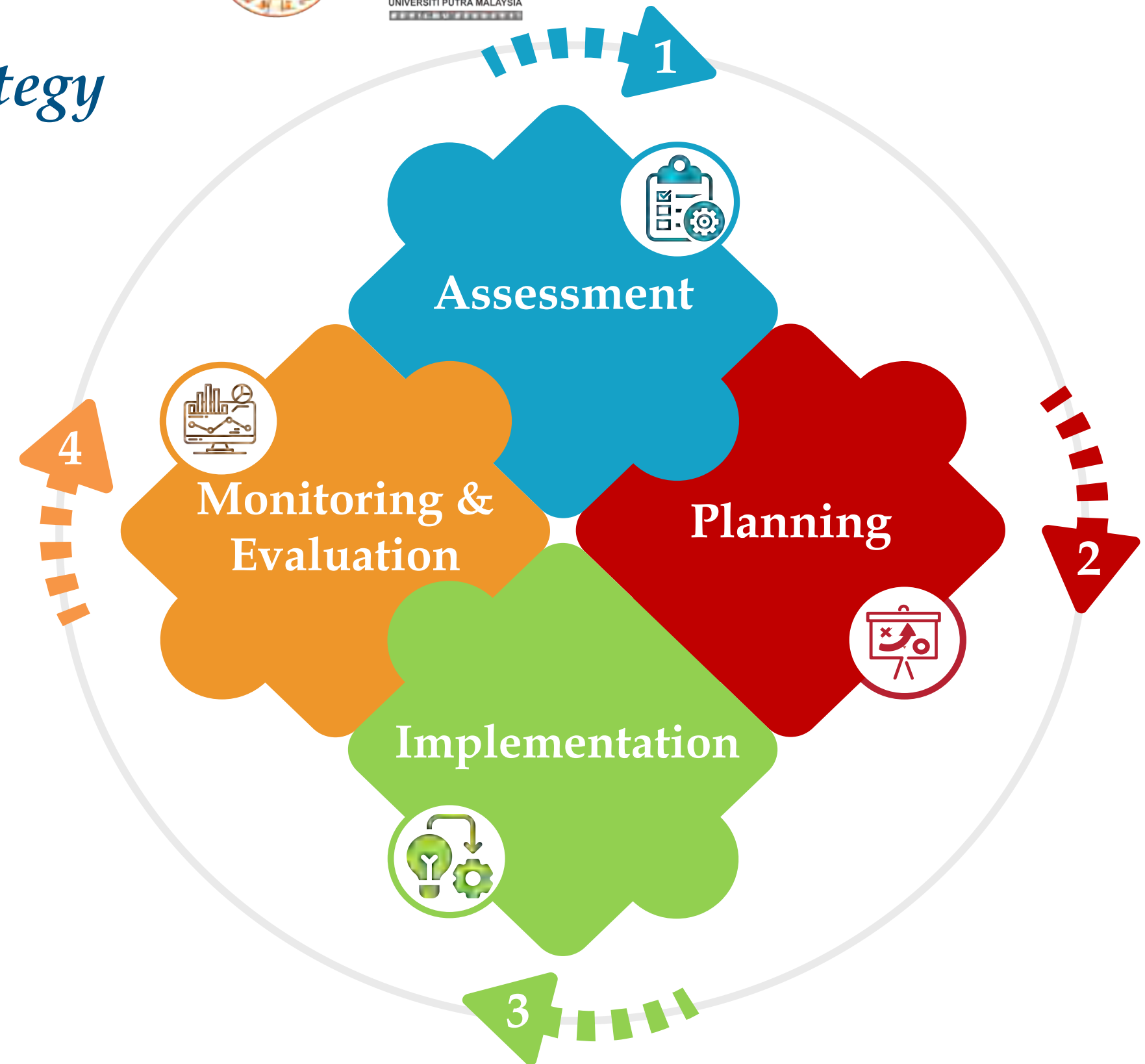
Monitoring and evaluating AI implementation

02

Providing training and support for teachers, staff, and students in AI literacy

## AI in education: implementation strategy

Successful AI implementation  
in the education requires  
careful consideration and  
strategic planning.



# AI in education: implementation strategy



1

## Assessment



Understand and examine the use cases and applications of ML, NLP, and deep learning.

Assess the current state of AI-based solutions in educational contexts.

Analyze the availability of products and services that can be incorporated into an AI-based approach

Understand the legal and ethical implications of implementing AI-based systems in educational settings.

<https://www.itransition.com/ai/education>

# AI in education: implementation strategy

2

## Planning



Establish a governance structure for AI-based solutions in educational settings

Creating guidelines and protocols to ensure that the AI-based system is compliant with all applicable ethical considerations, laws and regulations

Develop a comprehensive plan for implementing AI-based solutions in educational institution (defining specific objectives, setting appropriate metrics, and timeline)

Identify the necessary skills, resources, and technologies required to build an AI-based system.



<https://www.itransition.com/ai/education>

## *AI in education: implementation strategy*

3

### Implementation

Build internal capacity

Providing training for both students and teachers on effectively using AI

Integrating generative AI technologies into teaching and learning practices.



<https://www.itransition.com/ai/education>

## AI in education: implementation strategy

4

### Monitoring & evaluation



Creating a process for monitoring the use of AI-based solutions  
Ensuring that data privacy is maintained throughout the implementation process.  
Assessing the impact of AI implementation on the educational process using Key Performance Indicators (KPIs).




<https://www.itransition.com/ai/education>

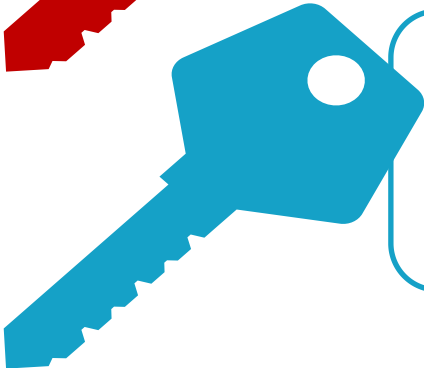
## Take home messages




*“Do not confine your students to your own learning, for they were born in another time.”*  
Chinese Proverb



*While there are many issues surrounding AI, we shall focus on the governance of education while integrating it into higher education teaching and learning*



*The transformative potential of AI in higher education continue to evolve, thus it is crucial to embrace them thoughtfully, ensuring they align with educational goals, ethical considerations, and the well-being of students and educators.*



Artificial intelligence  
is a tool, not a threat.

Rodney Brooks



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- Liu, B. L., Morales, D., Roser-Chinchilla, J., Sabzalieva, E., Valentini, A., Vieira do Nascimento, D., & Yerovi, C. (2023). *Harnessing the era of artificial intelligence in higher education: a primer for higher education stakeholders*





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Thanks

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Спасибо

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