



Ask the ICDE Experts: Quality of Online Assessment & Impact of ChatGPT



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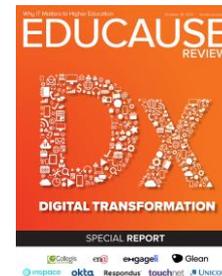
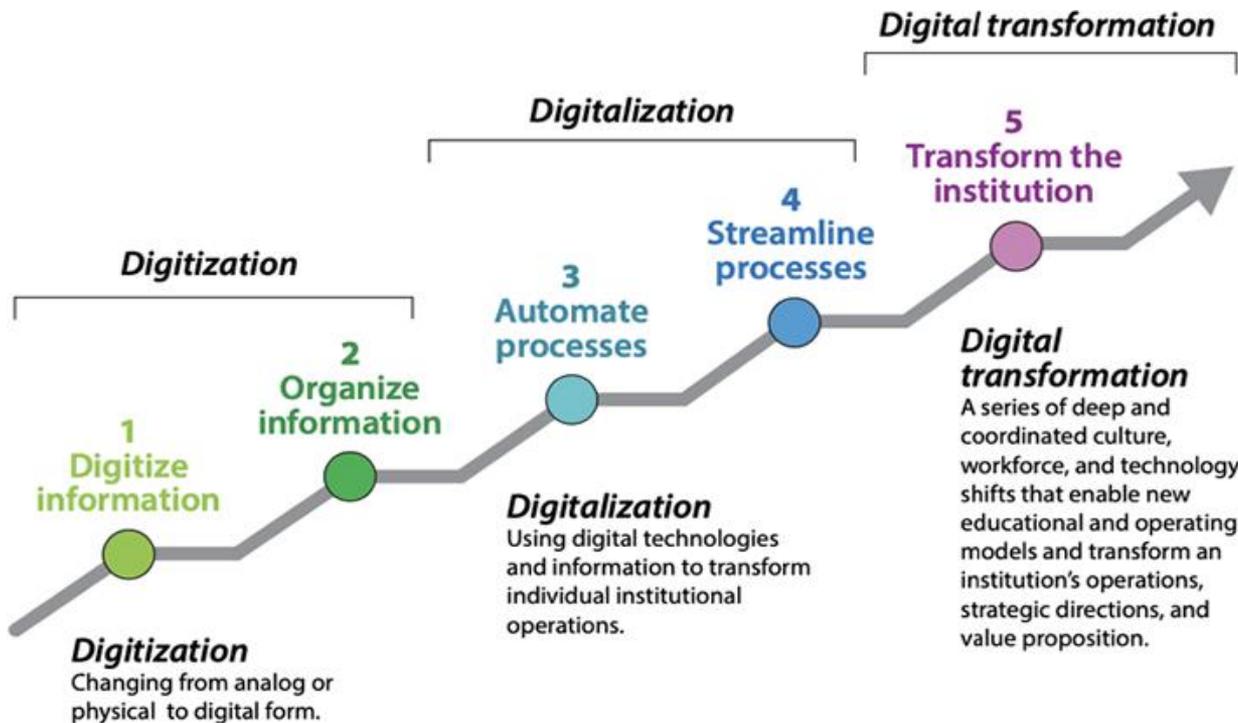
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Digital Transformation, Trends, **AI** Challenges & Opportunities



Source: AI-generated images

3 Ds for Digital Transformation





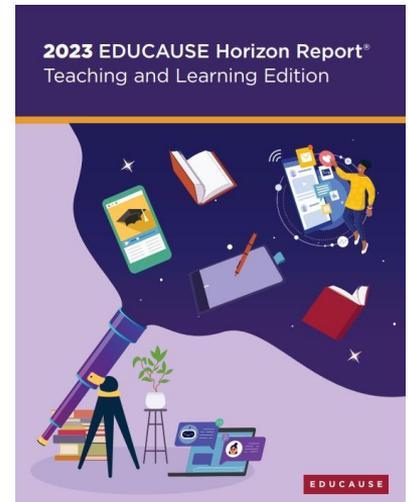
Trends in Higher Ed 2021-22-23

Social Technological Economic Environmental Political



Key Technologies & Practices:

- **AI-enabled applications for T&L**
- Hybrid modalities: work/teach/learn
- Students: sense of belonging/connectedness
- Quality in online ed & digital learning
- Micro-credentials / learning analytics / OER
- Faculty: continued support and prof. dev.



Source: <https://library.educause.edu/resources/2023/5/2023-educause-horizon-report-teaching-and-learning-edition>



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So, what IS AI?



Source: AI-generated images

The term 'Artificial Intelligence' was first used at a 1956 workshop held at Dartmouth College, a US Ivy League university, to describe the "science and engineering of making intelligent machines, especially intelligent computer programs" (McCarthy et al., 2006, p. 2)



Our life IS AI-enabled!

- ✓ Personal Assistants
- ✓ Social Media
- ✓ Customer service
- ✓ Healthcare
- ✓ E-Commerce
- ✓ Autonomous vehicles
- ✓ Smart home devices
- ✓ etc.



Source: AI-generated images

ChatGPT has arrived ...

- **Now what?**
or
- **So what?**



Initially released by OpenAI
Nov. 30, 2022

Visit: chat.openai.com or mobile APP



**GPT =
Generative
Pretrained
Transformer**

YG

What is ChatGPT



ChatGPT is a large language model created by OpenAI, which is based on the GPT (Generative Pretrained Transformer) architecture. It is designed to understand natural language and generate human-like responses to a wide range of prompts or questions. ChatGPT has been trained on a massive amount of data and has the ability to generate coherent and contextually appropriate responses to a wide range of queries, making it useful for various natural language processing tasks such as language translation, text completion, and question-answering. As a virtual assistant, ChatGPT can assist with tasks and provide information on a wide range of topics, depending on the user's needs.

Default (GPT-3.5)



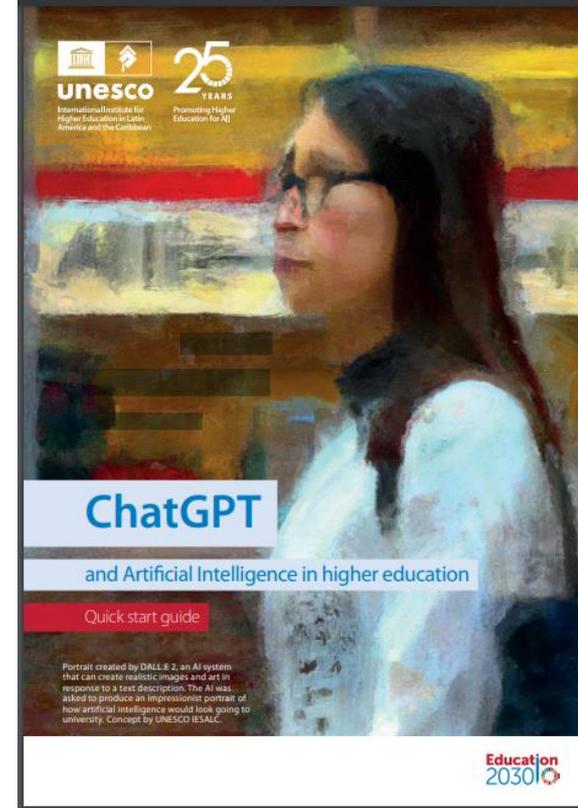
What is ChatGPT?



ChatGPT is a language model developed by OpenAI, based on the GPT-3.5 architecture. It's designed to understand and generate human-like text based on the input it receives. Users can interact with ChatGPT to ask questions, get information, generate text, or have conversations on a wide range of topics. It's trained on a vast amount of text data and can provide responses that are contextually relevant and coherent. How can I assist you today?



- What is ChatGPT
- How to get started
- Applications in Higher education
- Challenges & ethical implications
 - UNESCO recommendations
- Adapting to ChatGPT at your institution



Source: https://www.iesalc.unesco.org/wp-content/uploads/2023/04/ChatGPT-and-Artificial-Intelligence-in-higher-education-Quick-Start-guide_EN_FINAL.pdf



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Applications of ChatGPT in Higher Education

Possible/potential roles and uses for:

Teaching
Learning
Research
Engagement



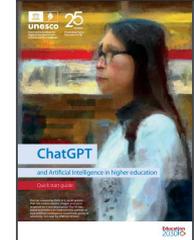
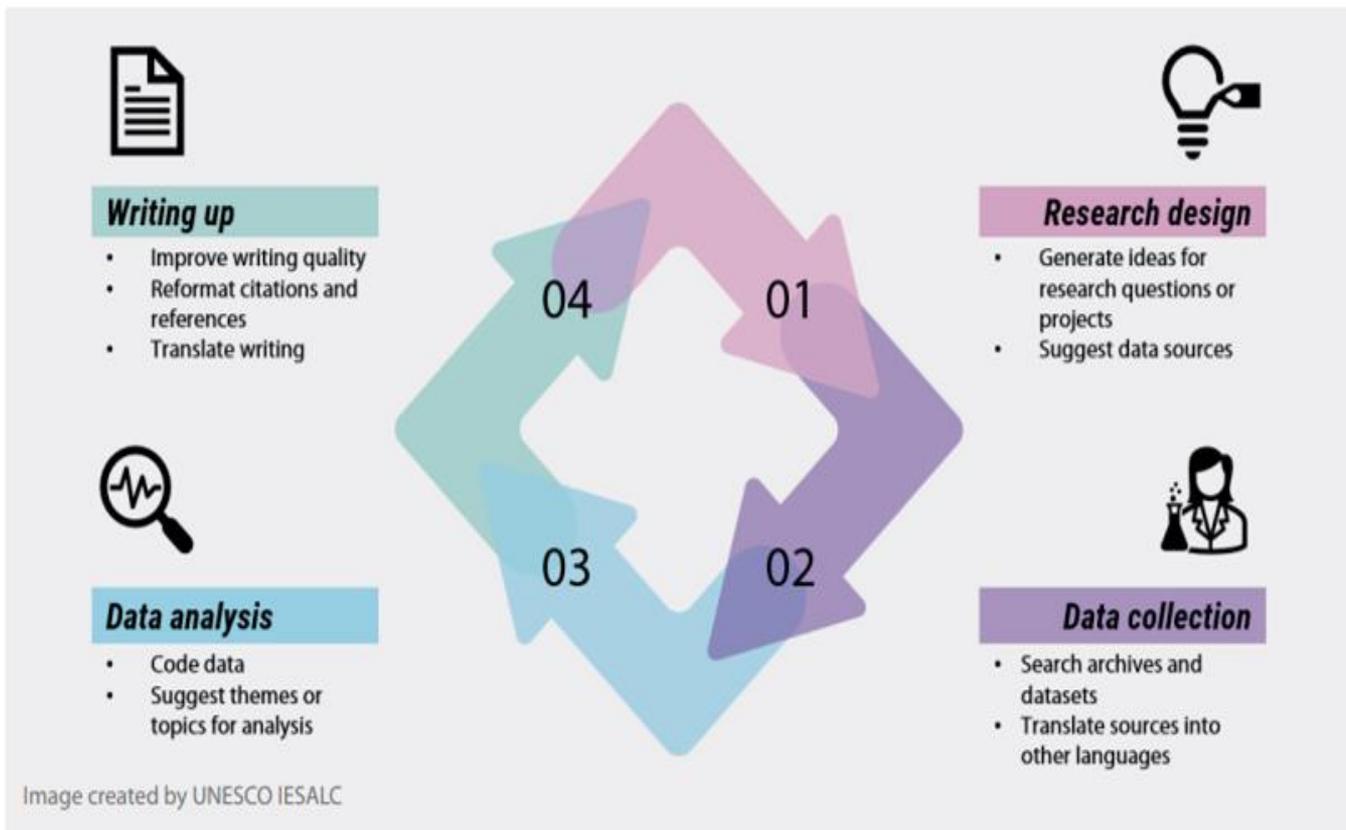
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Role ⁶	Description	Example of implementation
Possibility engine	AI generates alternative ways of expressing an idea	Students write queries in ChatGPT and use the Regenerate response function to examine alternative responses.
Socratic opponent	AI acts as an opponent to develop and argument	Students enter prompts into ChatGPT following the structure of a conversation or debate. Teachers can ask students to use ChatGPT to prepare for discussions.
Collaboration coach	AI helps groups to research and solve problems together	Working in groups, students use ChatGPT to find out information to complete tasks and assignments.
Guide on the side	AI acts as a guide to navigate physical and conceptual spaces	Teachers use ChatGPT to generate content for classes/courses (e.g., discussion questions) and advice on how to support students in learning specific concepts.
Personal tutor	AI tutors each student and gives immediate feedback on progress	ChatGPT provides personalized feedback to students based on information provided by students or teachers (e.g., test scores).
Co-designer	AI assists throughout the design process	Teachers ask ChatGPT for ideas about designing or updating a curriculum (e.g., rubrics for assessment) and/or focus on specific goals (e.g., how to make the curriculum more accessible).
Exploratorium	AI provides tools to play with, explore and interpret data	Teachers provide basic information to students who write different queries in ChatGPT to find out more. ChatGPT can be used to support language learning.
Study buddy	AI helps the student reflect on learning material	Students explain their current level of understanding to ChatGPT and ask for ways to help them study the material. ChatGPT could also be used to help students prepare for other tasks (e.g., job interviews).
Motivator	AI offers games and challenges to extend learning	Teachers or students ask ChatGPT for ideas about how to extend students' learning after providing a summary of the current level of knowledge (e.g., quizzes, exercises).
Dynamic assessor	AI provides educators with a profile of each student's current knowledge	Students interact with ChatGPT in a tutorial-type dialogue and then ask ChatGPT to produce a summary of their current state of knowledge to share with their teacher/for assessment.





Figure 3: Possible uses of ChatGPT in the research process

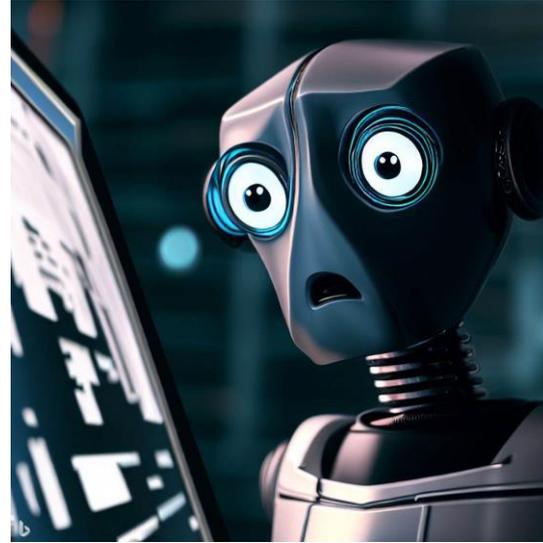




Challenges/Ethical Implications



- Academic integrity
 - Lack of regulation
 - Privacy concerns
 - Cognitive bias
- Gender and diversity
 - Accessibility
- Commercialization



Source: AI-generated images



How to use ChatGPT ethically and responsibly for teaching and learning in higher education?



Using ChatGPT ethically and responsibly for teaching and learning in higher education involves several key considerations:

1. **Disclosure:** Clearly inform students that they are interacting with an AI, not a human. Transparency is essential to maintain trust.
2. **Supplemental Tool:** Use ChatGPT as a supplementary tool to enhance learning, not as a replacement for human instructors. It can assist with answering questions and providing additional resources.



3. **Encourage Critical Thinking:** Encourage students to critically evaluate the information provided by ChatGPT and cross-reference it with other sources.
4. **Privacy and Data Security:** Ensure that student data is protected, and that interactions with ChatGPT are conducted in a secure environment in compliance with data protection regulations.
5. **Set Boundaries:** Define the scope and limitations of ChatGPT's involvement in the course. Make it clear when and how students should use it.
6. **Monitor Usage:** Keep an eye on how students are using ChatGPT to prevent misuse or overreliance.

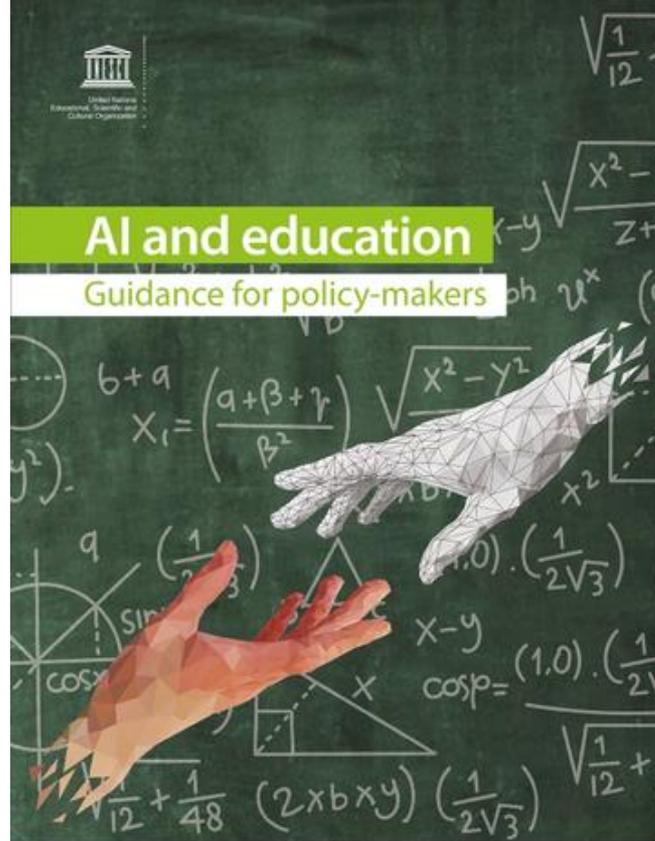
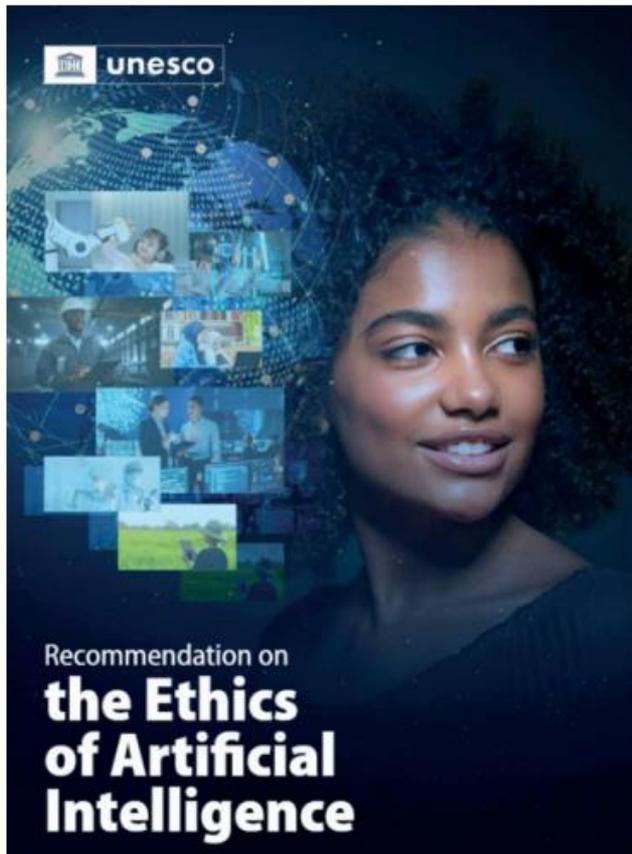


7. **Avoid Plagiarism:** Emphasize the importance of original work and discourage students from using ChatGPT to generate essays or assignments without understanding the material.
8. **Address Bias:** Be aware of potential biases in ChatGPT's responses and guide students on how to critically assess and address bias.
9. **Feedback and Improvement:** Provide feedback to OpenAI or the platform you're using to help improve ChatGPT's responses and reduce inaccuracies.
10. **Continuous Evaluation:** Regularly assess the impact of ChatGPT on student learning and make adjustments as needed.

By following these guidelines, you can harness the potential of ChatGPT as a valuable tool in higher education while ensuring ethical and responsible use.



UNESCO Recommendation on the Ethics of AI, adopted in 2021



Education
2030



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GUIDELINES FOR USING AI RESPONSIBLY

PARTIALLY GENERATED WITH THE USE OF CHATGPT



1) ORIGINAL WORK

Students must understand that all work submitted must be their own original work. Using AI-generated content as their own work is considered plagiarism and will not be tolerated.

2) ATTRIBUTION

Students must give credit to the source of any AI-generated content used in their work. This includes providing proper citations and referencing any materials used.



3) TRANSPARENCY

Students should be transparent about their use of AI in their work. This includes identifying any AI-generated content used in their work and explaining how it was used.

4) AVOIDING BIAS

Students should be aware of the potential for AI to perpetuate bias and discrimination and should strive to use AI in an ethical and unbiased manner.

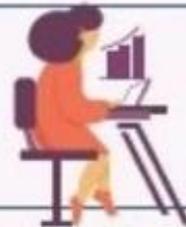


5) EVALUATING THE SOURCE

Students should critically evaluate the source of any AI-generated content used in their work and assess its reliability, credibility, and potential biases.

6) RESPECT FOR PRIVACY

Students should be aware of the privacy implications of using AI and should take steps to protect personal information when using AI-powered tools.



7) RESPONSIBLE USE

Students should use AI responsibly and in accordance with the guidelines provided by their teacher. They should not use AI for any malicious or harmful purposes.

8) COMPLIANCE WITH LAWS AND REGULATIONS

Students should be aware of and comply with all laws and regulations regarding the use of AI and data protection. Explore Privacy Policies with students.



www.linclearning.com

Source:
<https://linclearning.com>



3 Effective Ways to use ChatGPT for Studying & Teaching (2023 Edition)

Create customised assessments and generating practice questions of various types

Crafting memory devices for studying - getting inspiration from ChatGPT to create Mnemonics and Analogies for conceptual learning

Summarising Information learnt using Pareto's Principle (80/20 Rule) & retrieving case study resources efficiently

Source: <https://introspectingmedic.com/3-useful-ways-to-use-chatgpt-for-learning-teaching/>



20

ways to use ChatGPT in the classroom



1
Use it as a more complex source of information than Google.



2
Use it to provide students access to lots of good examples.



3
Use it to remix student work.



4
Ask it for definitions (on a variety of levels).



5
Ask it for feedback for student work.



6
Ask it to do some teacher tasks for you.



7
Add it to the "think pair share" thinking routine.



8
Grade the bot.



9
Debate the bot.



10
Ask the bot for advice.



11
Use it to summarize texts.



12
Use it for insight into big, difficult-to-solve problems.



13
Ask ChatGPT to write your lesson plans.



14
Anticipate the response you'd expect from AI.



15
Take several responses and make a better product.



16
Create personalized learning experiences.



17
Provide tutoring or coaching.



18
Generate prompts and questions to facilitate discussions.



19
Provide information and answer questions.



20
Supplement in-person instruction.

Source: www.ditchthattextbook.com/ai/



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Get an overview of ChatGPT in the classroom at ditchthattextbook.com/ai/.
Infographic by Matt Miller (@jmattmiller / DitchThatTextbook.com)



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AI decision tree

This document is intended to help the Ecampus Course Development Team, as well as faculty and staff, use a principles-based approach in deciding if and how to incorporate artificial intelligence (AI) into course development, research, and other work projects. After reviewing the risks identified below, consider whether the overall benefits of using the tool outweigh the risks.

Existing Policy

Does the department or program have an established policy on use of AI tools in teaching and learning?

1

Yes

Refer to department policy.

No

Pause and seek consultation.*

2

Pedagogical Purpose

Can you explain the ways in which using this tool would serve to support the course outcomes or pedagogy in this course?

Bias and Accuracy

Could biased or inaccurate information potentially be provided by this tool?

3

Yes

Pause and seek consultation.*

No

Pause and seek consultation* because the human author is accountable for the content.

4

Quality and Accountability

Are you or the learners prepared to vet the information produced by the AI tool?

Access and Affordability

If the tool will be used by learners in the course, is it available and free to all?

5

No

Pause and seek consultation.*

Yes

Mitigate the risk for lower performance by learners who only have access to the free version.

6

Equity

Is there a paid version available and would it place learners who only use the free version at a disadvantage?

Accessibility

Does the tool meet or exceed the standards of Web Content Accessibility Guidelines (WCAG)?

7

No

See if this poses a barrier to access; seek consultation if unsure.

Yes

Redesign task to eliminate use of personal information.

8

Privacy and Security

Will the users of the tool be inputting personal information into the system?

Copyright

Could copyright rules be violated with the use of the tool in the manner intended?

9

Yes

Pause and reconsider use.

Yes

Redesign usage in a way that doesn't circumvent critical thinking.

10

Critical Thinking

Does the potential exist for critical thinking to be avoided by use of this tool by learners, staff, or faculty?

Transparency

Are all stakeholders informed of the desire to use AI in this way, and do they approve?

11

No

Inform all stakeholders of intended use and ask for consent. Do not use the tool's without consent.

Yes

Consider how the tool could be used in a way that enhances opportunities for human connection.

12

Human Connection

Does the use of AI significantly reduce human connection in a course or work project?

*Consult a supervisor or other person who can provide expertise.

Source:

<https://ecampus.oregonstate.edu/faculty/artificial-intelligence-tools/ai-decision-tree.pdf>



Bloom's Taxonomy Revisited

Use this table as a reference for evaluating and making changes to aligned course activities and assessments (or, where possible, learning outcomes) that account for generative Artificial Intelligence (AI) tool capabilities and distinctive human skills.

All course activities and assessments will benefit from **review** given the capabilities of AI tools; those at the **Remember** and **Analyze** levels may be more likely to need **amendment**.



Attribution 4.0 International (CC BY 4.0)

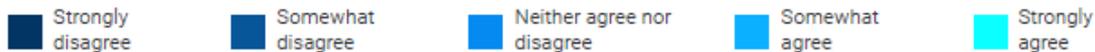
	RECOMMENDATION	AI CAPABILITIES	DISTINCTIVE HUMAN SKILLS
CREATE	Review	Suggest a range of alternatives, enumerate potential drawbacks and advantages, describe successful real-world cases	Formulate original solutions incorporating human judgement, collaborate spontaneously
EVALUATE	Review	Identify pros and cons of various courses of action, develop rubrics	Engage in metacognitive reflection, holistically appraise ethical consequences of alternative courses of action
ANALYZE	Amend	Compare and contrast data, infer trends and themes, compute, predict	Critically think and reason within the cognitive and affective domains, interpret and relate to authentic problems, decisions, & choices
APPLY	Review	Make use of a process, model, or method to illustrate how to solve a quantitative inquiry	Operate, implement, conduct, execute, experiment, and test in the real world; apply creativity and imagination to idea & solution development
UNDERSTAND	Review	Describe a concept in different words, recognize a related example, translate	Contextualize answers within emotional, moral, or ethical considerations
REMEMBER	Amend	Recall factual information, list possible answers, define a term, construct a basic chronology	Recall information in situations where technology is not readily accessible

Source:

<https://ecampus.oregonstate.edu/faculty/artificial-intelligence-tools/blooms-taxonomy-revisited.pdf>



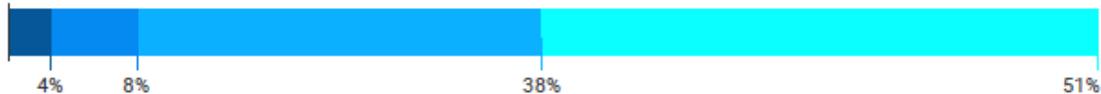
To what extent do you agree or disagree with the following statements regarding how AI may affect higher education instruction?



Working with AI software will become a core skill needed in the workforce. (n=185)



Working with AI software will become a core skill institutions will need to teach. (n=184)



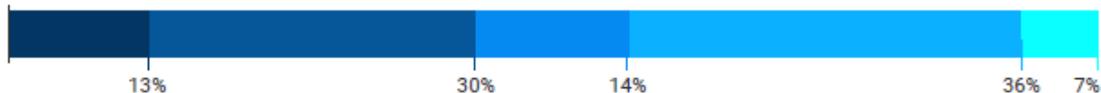
In the next five years, the implementation of AI software will dramatically change higher education instructional practices. (n=183)



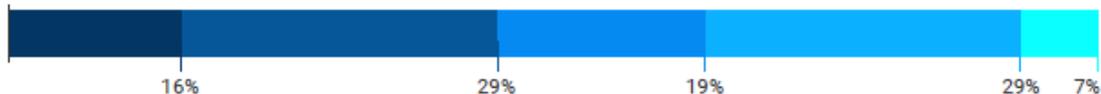
In the next five years, the implementation of AI software will dramatically change the type of material taught in the classroom. (n=185)



Faculty at my institution will be receptive to adjusting their curricula to include teaching students how to use AI. (n=184)



My institution will have adequate resources to support faculty as they learn how to use new AI technology. (n=186)



Source:
<https://access.ihenow.com/emerging-technology-and-ai/>



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The Crucial Multi-Faceted & Evolving Role of Faculty



Source: AI-generated images

Takeaway/ Q&A

Let's support and learn from each other on how to use AI technologies to engage all students for success!



Source: AI-generated images



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