

Generative AI in Education

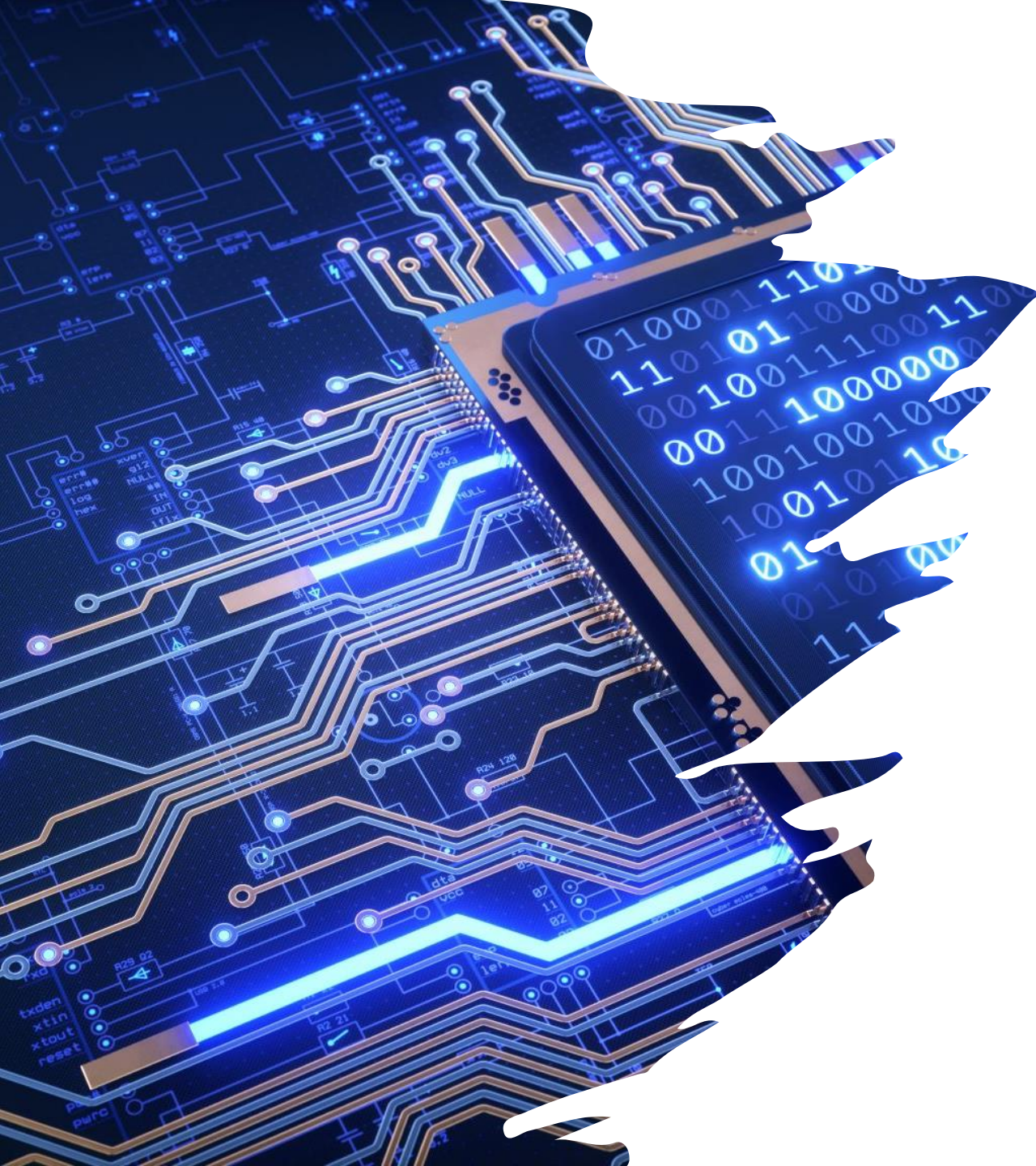
OPPORTUNITIES & CHALLENGES

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What is Generative Artificial Intelligence (AI)?

- Generative AI tools like ChatGPT, Bard, and Bing are trained on massive datasets to create new content.
- They can generate text, code, images, audio, and more.
- These tools have evolved significantly since their chatbot origins in the 1960s.



DISCUSSION

For how long have you been using
Generative AI Tools?

Which tools do you know and
actively use?

How do you use them?

How do they support you?

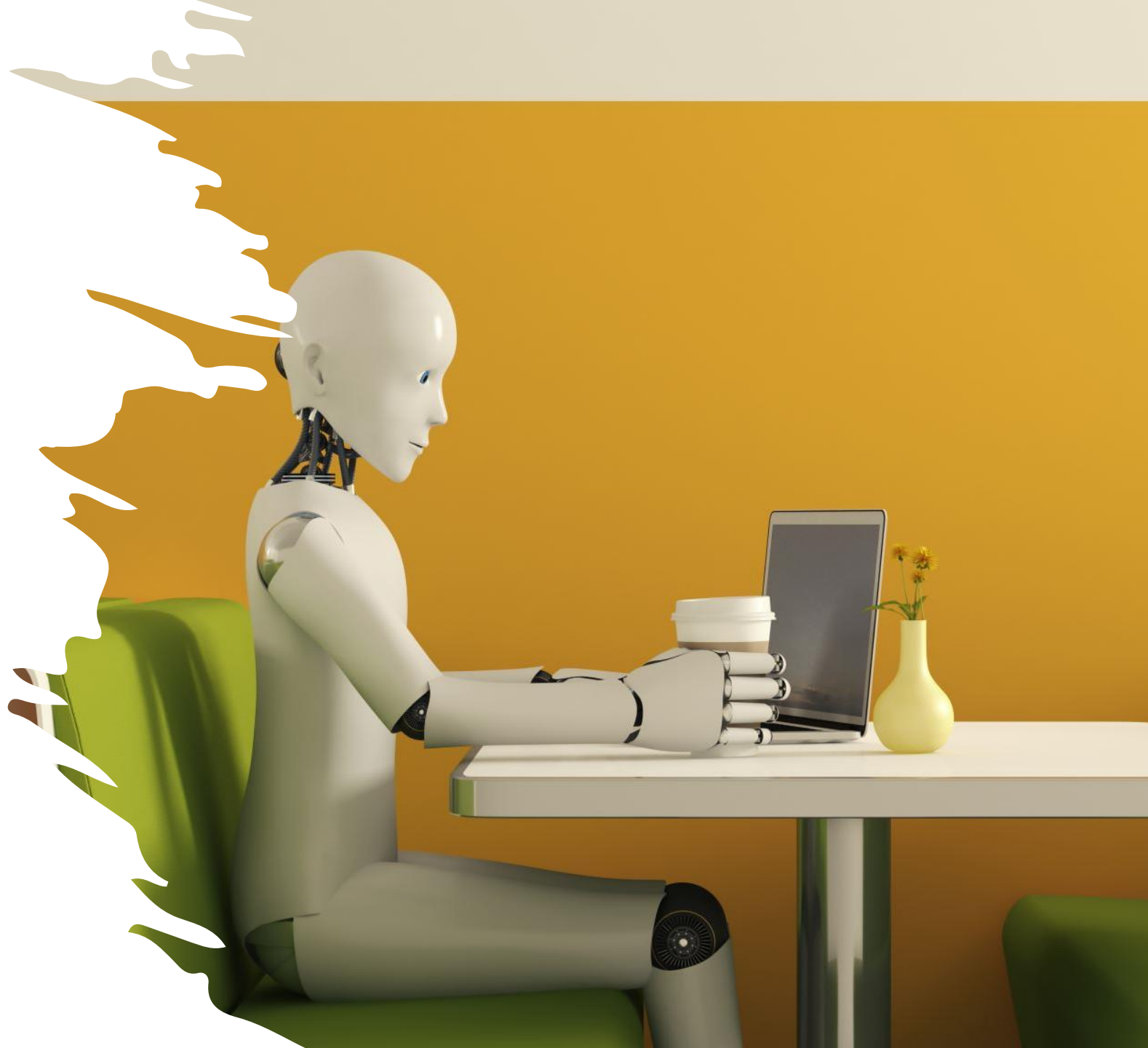
What are the challenges they
present?

Weaknesses of Generative AI



Generative AI is Inaccurate

- ChatGPT and other AI technologies can be faulty and produce false results.
- This includes factual inaccuracies, biases, and content that is deceptive.
- Directly copying from AI tools is not advantageous and may be dangerous.



Transparency and Oversight

Corporations frequently build and own generative AI tools, keeping their internal processes unknown.

Supervision and openness are essential for ensuring that these tools are used in an ethical and responsible manner.

Questions to consider:

How are tools trained?

What safeguards are in place to protect against bias and dangerous content?

How is user data protected and who has access to it?

Environmental Impact



- Environmental issues are raised by the considerable energy consumption required for training and operating generative AI models.
- We must figure out how to improve AI's efficiency and sustainability.
- How can the energy footprint of AI be minimized?
- What ethical consequences result from AI's effects on the environment?

Diversity, Non-discrimination, and Fairness

Diversity, inclusivity, and nondiscrimination should be incorporated into the design of generative AI.

To guarantee equitable results, biases in algorithms and training data must be addressed.

How do we make sure AI takes into account a range of viewpoints and experiences?

How can we stop negative stereotypes and biases perpetuated by AI?

Equity and Bias in Generative AI



Privacy, Data Governance, and Safety

User data and copyrighted material used by generative AI tools must be protected.

Robust data governance and safety measures are essential.

How is user data used, stored, and shared?

Who has access to data and how is it protected?

How can we ensure the safety and security of AI systems?

University Position on Generative AI



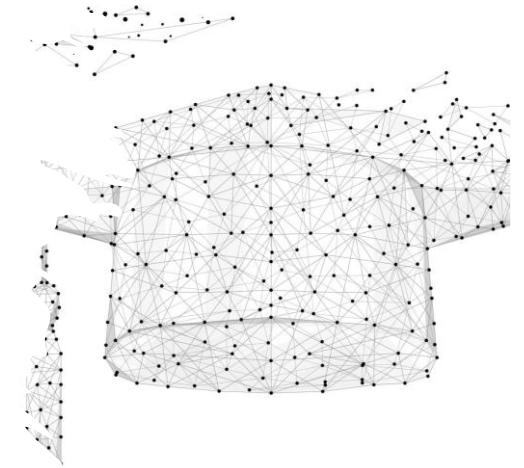
All good universities recognized the impact of Generative AI on teaching, learning, and assessment.



Their goal is to apply AI to the advantage of staff and students while maintaining ethical and responsible use.



A key objective is to equip students with "AI literacy" skills.



*Reflection
Questions for
Ethical Use*



Does using AI contribute to the common good?



Am I taking shortcuts and cheating myself?



Is AI hindering my learning and development?



Am I acting with integrity and being my best self?



***Ethical
Concerns with
ChatGPT***

Never directly copy AI-generated content.

Be wary of AI biases and seek diverse information sources.

Use AI as a learning tool, not a shortcut for academic work.

Double-check all information generated by AI.

Ethical Guidelines for ChatGPT Use



Be specific and concise when interacting with AI.



Consider your own capabilities and the value of problem-solving.



Use AI with academic integrity and seek professor approval.

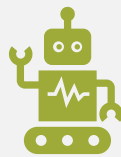
Impact on Learning and Moral Development



Overreliance on AI can weaken critical thinking and moral reasoning.



Students need to develop these skills through independent effort.



AI should be used as a tool to enhance learning, not replace it.



***Academic
Misconduct and
Generative AI***

Submitting AI-generated content as your own is considered plagiarism and academic misconduct.

Become AI-literate

Write how you used AI in your assignment

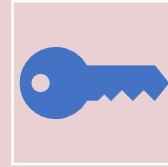
Give full credit

Seek clarification and guidance from your professors

Generative AI as a Study Aid



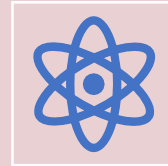
Using Generative AI as a personal learning tool.



Exploring key ideas,



Developing study resources,



Personalized revision materials.

Ways to Use Generative AI for Study



GENERATE
SUMMARIES
OF COMPLEX
CONCEPTS OR
RESEARCH
PAPERS.



CREATE
FLASHCARDS
AND QUIZZES
FOR
MEMORIZATIO
N AND SELF-
TESTING.



BRAINSTORM
IDEAS AND
OUTLINES FOR
ESSAYS AND
ASSIGNMENTS.



TRANSLATE
LANGUAGES
AND
PRACTICE
WRITING IN
DIFFERENT
STYLES.



VISUALIZE
DATA AND
GENERATE
DIAGRAMS
OR CHARTS.

Ways to Use Generative AI for Study

Generating summaries and study guides:

AI technologies can improve comprehension while saving students time and effort by analyzing complex materials and producing concise summaries.

Personalized practice and revision:

AI can customize study guides and tests to each student's unique learning preferences and areas of difficulty, allowing for more focused practice and improved memory of the subject.

Ways to Use Generative AI for Study

1

Brainstorming and idea generation:

With the use of AI technologies, one can overcome writer's block and come up with fresh concepts for essays, presentations, and other homework.

2

Overcoming language barriers:

Students' horizons are expanded when they can access and comprehend instructional materials in other languages thanks to AI-powered translation systems.

3

Visualizing data and concepts:

AI is capable of producing dynamic data visualizations and diagrams that turn difficult ideas into understandable, entertaining teaching tools.

Ways to Use Generative AI for Study



Exploring different writing styles and perspectives:

Students can experiment and improve their writing abilities because AI can produce content in a variety of voices and styles.



Receiving feedback and suggestions:

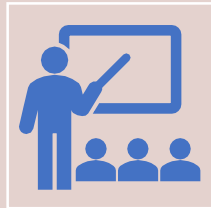
Grammar mistakes can be found, stylistic tweaks can be suggested, and content and structural criticism can be given via AI-powered writing helpers.

Ways to Use Generative AI for Study



Finding relevant academic resources:

Based on certain subjects and interests, AI-powered search engines can filter and suggest research papers, articles, and other academic content.



Engaging in collaborative learning:

Artificial intelligence (AI) tools have the potential to connect students from different backgrounds and foster active learning through group projects and online debates.

Alternatives to Generative AI



Utilizing reliable sources for research and information.

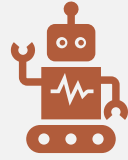


Engaging in critical thinking and analysis of information.



Developing strong communication and writing skills through practice.

Conclusion



Generative AI can be a powerful tool, but it has limitations.



Ethical considerations and potential harm must be understood.



You should use AI responsibly and focus on developing your own skills.

Recomended AI Tools

- <https://rb.gy/ao8l10>