

Empowering Educational Leadership

Harnessing Creativity and Technology for Student
Success in the Age of Ai

Marc Gobeil, PhD. Principals' Short Course, July 5, 2024



“The Illiterate of the 21st century will not be those who cannot read and write but those who cannot learn, unlearn and relearn”

Alvin Toffler

“The Illiterate of the 21st century will not be those who cannot read and write but those who cannot learn, unlearn and relearn”

1. Adaptability is the new literacy
2. Continuous learning is crucial in the AI era
3. Unlearning old methods is as important as learning new ones
4. Relearning emphasizes staying current in a rapidly changing world
5. Critical thinking skills are essential for navigating AI-driven changes
6. Education should focus on creating adaptable learners
7. Processing and applying information trumps mere knowledge possession
8. Modern literacy includes adapting to new technological tools


Alvin Toffler

Creativity

Think Differently, Design “Unlikely Futures”

“Creativity is as important as literacy and we should treat it with the same status.”

TED Ideas change everything WATCH

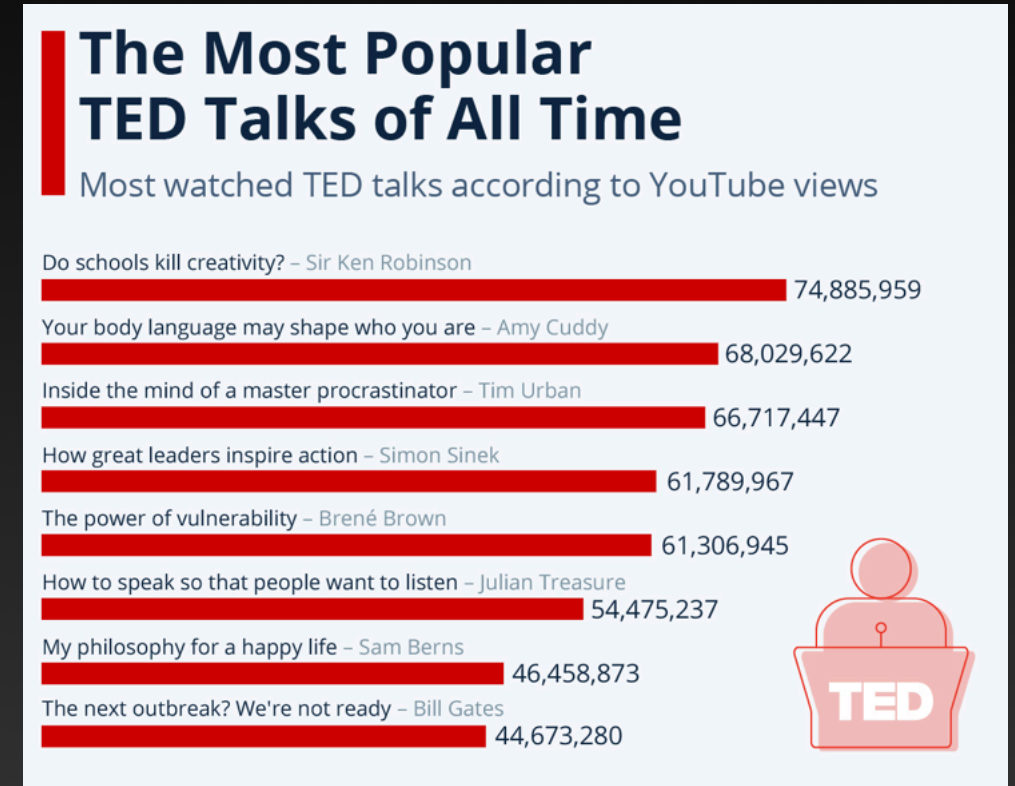


Do schools kill creativity?
77,155,331 views | Sir Ken Robinson | TED2006 • February 2006

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Sir Ken Robinson makes an entertaining and profoundly moving case for creating an education system that nurtures (rather than undermines) creativity.

[Culture](#), [Education](#), [Creativity](#), [Dance](#), [Parenting](#), [Teaching](#), [Kids](#)



“Creativity is as important as literacy and we should treat it with the same status.”



What is Creativity?

“The Process of having original ideas that have value, more often than not comes about through the interaction of different disciplinary ways of seeing things”

Ken Robinson

“Every education system on earth has the same hierarchy of subjects”

Mathematics & Languages

Humanities

The Arts

Art and Music

Drama and Dance

“Our Education System is predicated on the idea of academic ability”

Hierarchies were developed to meet the needs of Industrialism

- The Carnegie Unit 1906
- Standardization to facilitate the college admission process
- Industrialization of Education

Disruptive Technologies

Think Differently, Design “Unlikely Futures”

“ people think they are crazy and in that craziness we see genius and those are the people we are making products for”



Steve Jobs



The SAMR Model for Technology Integration

SAMR

I wonder what's in the ocean?



NO TECH

SUBSTITUTION
Tech acts as a direct tool substitute, with no functional change.

AUGMENTATION
Tech acts as a direct tool substitute, with functional improvement.

MODIFICATION
Tech allows for significant task redesign.

REDEFINITION
Tech allows for the creation of new tasks, previously inconceivable.

ENHANCEMENT

TRANSFORMATION

@sylviaaduckworth
@edappadvice

“Artificial Intelligence”

‘Can machines think’ I believe to be too meaningless to deserve discussion. Nevertheless I believe that at the end of the century the use of words and general educated opinion will have altered so much that one will be able to speak of machines thinking without expecting to be contradicted.’

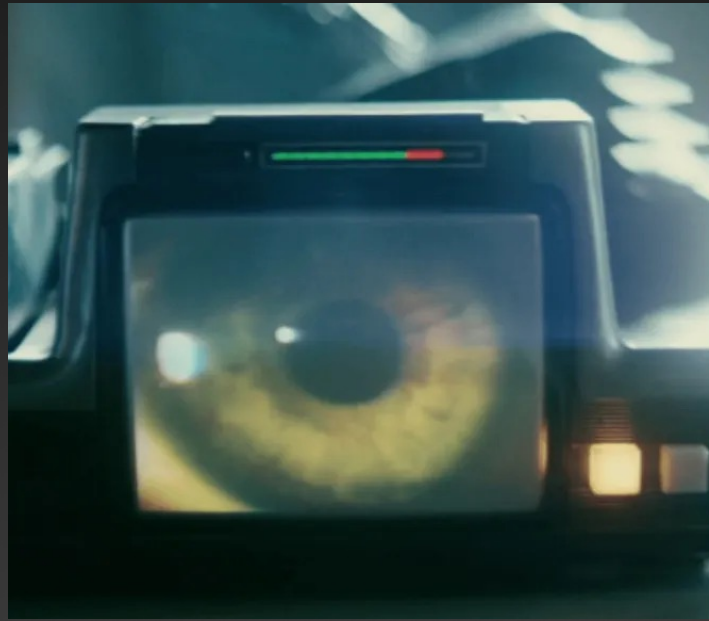
Allan Turing

What is AI?

Eliza, Perry, Racter, Alice, Eugene Goostman, Duplex, Lamda, ChatGPT, Bard, Claude

HISTORICAL TIMELINE OF CHATBOTS AND AI





HISTORICAL TIMELINE OF CHATBOTS AND AI



The importance of Education in the Age of AI

The Existential Crisis Over Importance and Purpose of Education in a Chat GPT World

Overview: Exploring the relevance and importance of education in an AI-driven world

Key Points:

- **Fostering critical thinking, empathy, and understanding through Education**
- **Limitations of AI systems like ChatGPT**
- **The complementary relationship between education and AI**

The importance of Education in the Age of AI

Limitations of ChatGPT and AI systems..... currently

Inherent biases in AI systems

Lack of empathy and understanding

Context and interpretation challenges

The Elephant in the room

Academic Dishonesty

What are the Universities doing?



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What are the Universities doing?

Guidelines at USask

Guidelines at USask

Learn more about ChatGPT and GenAI

In Spring 2023, guidelines for assessment practices and recommendations for ethical use were shared with the campus community.

Article: 10 Guidelines for Assessment Practice in a GenAI Environment

Article: Recommendations for Ethical Use of Artificial Intelligence

GenAI is impacting everything from professional practice to educational practice, and it has a significant impact on assessment of learning.

As educators have the responsibility for assessment decisions, USask has not placed limits on instructional decisions about GenAI so that contextually-appropriate assessment decisions can be made by educators.

<https://academic-integrity.usask.ca/gen-ai.php>





What are the Universities doing?

Are you new to GenAI?

★ Complete the new module titled "*Understanding Generative AI*" in the [Student Academic Integrity Tutorial](#). The new module will take about 45 mins, the whole tutorial is about 3 hours.

- Short video: [what Large Language/Generative AI tools are and how they work](#).
- A [free PDF booklet](#) that provides a helpful overview of the technology and implications and applications for teaching (Broadview Press, booklet by Sidney I. Dobrin)
- Blog post: [Using AI to make teaching easier & more impactful](#) (oneusefulthing.org/Ethan Mollick)
- Library Guide - [Writing Help: ChatGPT and Other GenAI Writing Tools](#)
 - and this section - [Generative AI Writing Tools: Lists and Reviews](#)

Articulate expectations for acceptable use of GenAI

- Webpage: [USask Syllabus](#) for the University's syllabus template and creation guide
- Article: [Syllabus links to Academic Misconduct Regulations: necessary but not sufficient](#)
- Article: [Make your "ChatGPT" and other artificial intelligence expectations clear](#)
- Article: [Determining levels of acceptable GenAI use](#)

Use GenAI to support teaching

- Article: [Prompting Generative AI to help you plan for your class quickly](#)
- Article: [Getting AI to make questions for you](#)
- Article: [Generating Learning Outcomes with Generative AI](#)

<https://academic-integrity.usask.ca/gen-ai.php>





What are the Universities doing?

Detection Tools

IMPORTANT: Detection tools are not approved for use at USask

Tools to detect text or other outputs produced by GenAI are not reliable. False accusations can be devastating, and the detection tools are known to disproportionately generate false positives for those writing in an additional language.

Students, like faculty and others, whose intellectual property have been submitted to third parties without their permission would be able to complain about a violation of copyright.

- Article: [ChatGPT Detection Tools - Neither Approved Nor Recommended at USask](#)
- Article: [How to talk with Students about suspected Academic Misconduct](#)

[Academic Misconduct Regulations](#)



What are the Universities doing?



ABOUT CANVAS REMOTE TEACHING SEARCH



ACADEMIC INTEGRITY, ASSESSMENT AND EVALUATION, GENERATIVE AI

ChatGPT Detection Tools – neither approved nor recommended at USask

September 26, 2023

Within weeks of the release of ChatGPT, generative artificial intelligence (GenAI) detectors were claiming to be able to identify the text it produces. However, a growing body of research has found that these detection tools are not effective. Even the company that created ChatGPT (OpenAI) **abandoned their detector** in July 2023 due to its low rate of accuracy.

Consequently, such tools are neither approved nor recommended for use at the University of Saskatchewan.

Here is what recent research has demonstrated about the lack of efficacy of these tools:

1.) They are unreliable – False positives can lead to false accusations

False positives occur when a detector concludes that text was produced by GenAI when it was not. See [Why AI Detectors think the US Constitution was written by AI](#) to learn why some teaching practices likely to be flagged as

 Search

Topics

- (re)conciliation
- academic integrity
- academic misconduct
- accessibility
- active learning
- alignment
- assessment
- assessment and evaluation
- assessment principles
- Canvas
- Canvas-Discussion
- ChatGPT
- classroom environment
- collaboration
- competency





What are the Universities doing?

3.) Their use raises copyright concerns

It is a potential copyright violation to put the work of another person into a third-party tool without their permission. If you, as the instructor, do not acquire permission from each student for submitting their work to GenAI or plagiarism detectors, doing so could be a copyright infringement issue and/or a violation of the University's **Use of Materials Protected by Copyright Policy**.





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What are the Universities doing?



ABOUT
US

SUPPORT

PROGRAMS

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NEWS



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Generative AI at the U of Regina

Guidelines for faculty and instructors

Menu

[AI Guidelines](#)

[L'IA générative à l'Université de Regina](#)

[Sample Syllabus Statements](#)

[U of R AI Working Group](#)

Introduction:

The emergence of generative AI systems like [ChatGPT](#) presents both opportunities and challenges for teaching, learning, and research at all academic institutions including the [University of Regina](#). These technologies have the potential to enhance and augment human capabilities but also raise serious concerns about social impacts, academic integrity, and the role and purpose of AI in teaching and learning. In light of these complexities, the University of Regina has formed a Working Group on Generative AI in Teaching and Learning. This group has been tasked with establishing guidelines for the appropriate and responsible use of AI as it relates to U of R coursework. The information below represents the initial work of the committee; further guidance will be added in the coming weeks and months.

As an institution that strives to provide high-quality and accessible education, the [University of Regina](#) approaches these new technologies carefully. We are committed to fostering informed discussions about the responsible use of AI, developing policies that uphold the principle of academic integrity, and identifying constructive applications of AI that will enrich the student experience. This is uncharted territory, but the [University of Regina](#) community is committed to facing it with curiosity, care, and humanity.

Please see the FAQ below for important definitions, information, and guidelines for the use of generative AI at the University of Regina. Please keep in mind that as our collective understanding of Generative AI evolves, so too will these guidelines. As such, this is considered to be a living document. *(Last updated August 23, 2023)*





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What are the Universities doing?

Can/should instructors use tools to detect AI-generated content?

Tools designed to detect AI-generated content have demonstrated varying degrees of reliability; therefore, such tools should not be relied upon to ensure academic integrity. At present, [Turnitin](#), the University of Regina's institutionally adopted plagiarism-detection tool, produces an AI-detection report alongside the originality report when used for text-based assignments. This additional report is only available to the instructor. Due to the unreliability of AI-detection tools, and the possibility of false positives, the AI-detection report cannot be considered conclusive proof of academic misconduct; however, the report may be presented to the investigating dean alongside other potential evidence of cheating (see below for other possible signs). It should also be noted that [Turnitin](#) is presently the only institutionally adopted plagiarism- and AI-detection tool and that instructors are not permitted to use non-approved tools for the purpose of AI-detection.

Detection Tool Reliability

Just move on

- Turnitin recently launched a new tool to detect language written with artificial intelligence.
- The company claims its tool is 98% accurate in detecting content created by AI.
- A test of the tool using various forms of ChatGPT-generated copy revealed remarkable accuracy.
- Whether or not this technology curbs student cheating remains to be seen.



“To date, Turnitin gives no detailed information as to how it determines if a piece of writing is AI-generated or not”

Michale Coley, 2023

Guidance on AI Detection and Why We're Disabling Turnitin's AI Detector

Posted by [Michael Coley](#) on Wednesday, August 16, 2023 in [Announcements](#), [News](#).

In April of this year, Turnitin released an update to their product that reviewed submitted papers and presented their determination of how much of a paper was written by AI. [As we outlined at that time](#), many people had important concerns and questions about this new tool, namely how the product exactly works and how reliable the results would be. After several months of using and testing this tool, meeting with Turnitin and other AI leaders, and talking to other universities who also have access, ***Vanderbilt has decided to disable Turnitin's AI detection tool for the foreseeable future.*** This decision was not made lightly and was made in pursuit of the best interests of our students and faculty.

Trusted GPT-4, ChatGPT and AI Detector tool by ZeroGPT

ZeroGPT the most Advanced and Reliable Chat GPT, GPT4 & AI Content Detector



thanksgiving, present your requests to God. And the peace of God, which transcends all understanding, will guard your hearts and your minds in Christ Jesus.

Finally, brothers and sisters, whatever is true, whatever is noble, whatever is right, whatever is pure, whatever is lovely, whatever is admirable—if anything is excellent or praiseworthy—think about such things. Whatever you have learned or received or heard from me, or seen in me—put it into practice. And the God of peace will be with you.

I rejoiced greatly in the Lord that at last you renewed your concern for me. Indeed, you were concerned, but you had no opportunity to show it. I am not saying this because I am in need, for I have learned to be content whatever the circumstances. I know what it is to be in need, and I know what it is to have plenty. I have learned the secret of being content in any and every situation, whether well fed or hungry, whether living in plenty or in want.”

Detect Text

Upload File

1,186/15,000 Characters
(Get up to 100,000 [here](#))

Your Text is AI/GPT Generated



Philippians 4:4-9 (NIV)

“Rejoice in the Lord always. I will say it again: Rejoice! Let your gentleness be evident to all. The Lord is near. Do not be anxious about anything, but in every situation, by prayer and petition, with

3.) Their use raises copyright concerns

It is a potential copyright violation to put the work of another person into a third-party tool without their permission. If you, as the instructor, do not acquire permission from each student for submitting their work to GenAI or plagiarism detectors, doing so could be a copyright infringement issue and/or a violation of the University's **Use of Materials Protected by Copyright Policy**.

Caution: privacy violations

- If you are considering pasting student work into a detector, consider whether you have the legal right.
- Have you looked at the privacy policy attached to the tool?
- How might the student data be used?
- Has your institution's IT department vetted the software and approved it?



HOW WILL STUDENTS FEEL WHEN WE TELL THEM THEIR WRITING MAY BE WRONGLY FLAGGED AS LIKELY AI?

To help students prepare for the possibilities of false positives, emphasize the importance of the process. Include pre-work, rough drafts, feedback.

Is it fair to ask students to prove their humanity?

How will students know what this means or how to do it?

As AI gets better establishing one's "Voice" may not be enough



And another thing: it's simple for students to get around Turnitin's AI detection with Quillbot.

From the [Washington Post on Turnitin's AI detector](#): "It couldn't spot the ChatGPT in papers we ran through Quillbot, a paraphrasing program that remixes sentences."

LET'S GO BACK TO WHY WE ASSIGN WORK, NOT FOR THE PRODUCT BUT FOR THE THINKING PROCESS

“ Writing is a mode of learning. Students develop understanding and insights through the act of writing. Rather than writing simply being a matter of presenting existing information . Writing is a fundamental means to create deep learning and foster cognitive development”

-The Association for Writing Across the Curriculum

Different Perspective on Educational Implications:

Progressives:

ChatGPT proves Knowledge is obsolete. If we want to compete with AI for the jobs of the future we need to teach more creativity!

Traditionalists:

ChatGPT proves the need for Knowledge. We cannot outperform AI without a deep, rich source or domain-specific knowledge.

Assessment Reformers:

In the Real world of work, People will be able to use ChatGPT, just further proving that paper exams are obsolete. We need to assess how well people can use it and other resources through coursework and teacher moderated assessments.

Assessment Conservatives:

Allowing students access to resources like this further widens inequality, as those who have the means will be able to access them more readily. This is why we need standardized and controlled pen and paper assessments

EdTech Evangelists:

CHATGPT WILL CHANGE EVERYTHING!!!!

EdTech Skeptics:

This is just another “thing” nothing ever changes



“BAN IT, PROBLEM SOLVED”

New York City Department of Education Bans ChatGPT

Jan. 10th, 2023

 Send to Kindle

The New York City Department of Education has banned access to ChatGPT, an AI-driven chatbot prototype, from school-owned networks and devices, citing unspecified concerns about its potential to undermine student learning.

Launched by the San Francisco-based artificial intelligence research firm OpenAI last November, ChatGPT can execute various tasks including answering follow-up questions, challenging incorrect premises, admitting to mistakes and rejecting inappropriate requests, according to a [company blog](#). The tool uses reinforcement learning from human feedback and is fashioned after OpenAI's InstructGPT, a tool that follows instructions and provides detailed responses.

According to an email from NYC DoE spokeswoman Jenna Lyle, the department blocked the tool in December after schools requested that it do so. Some [educators have expressed concern](#) about the potential for AI to enable cheating by writing essays for students, and Lyle said the negatives of ChatGPT outweigh the positives.

THE SHIFT

Don't Ban ChatGPT in Schools. Teach With It.

OpenAI's new chat bot is raising fears of cheating on homework, but its potential as an educational tool outweighs its risks.

Transform and Empower your Teaching

Sal Khan's 2023 TED Talk: AI in the classroom can transform education

POSTED ON MAY 1, 2023

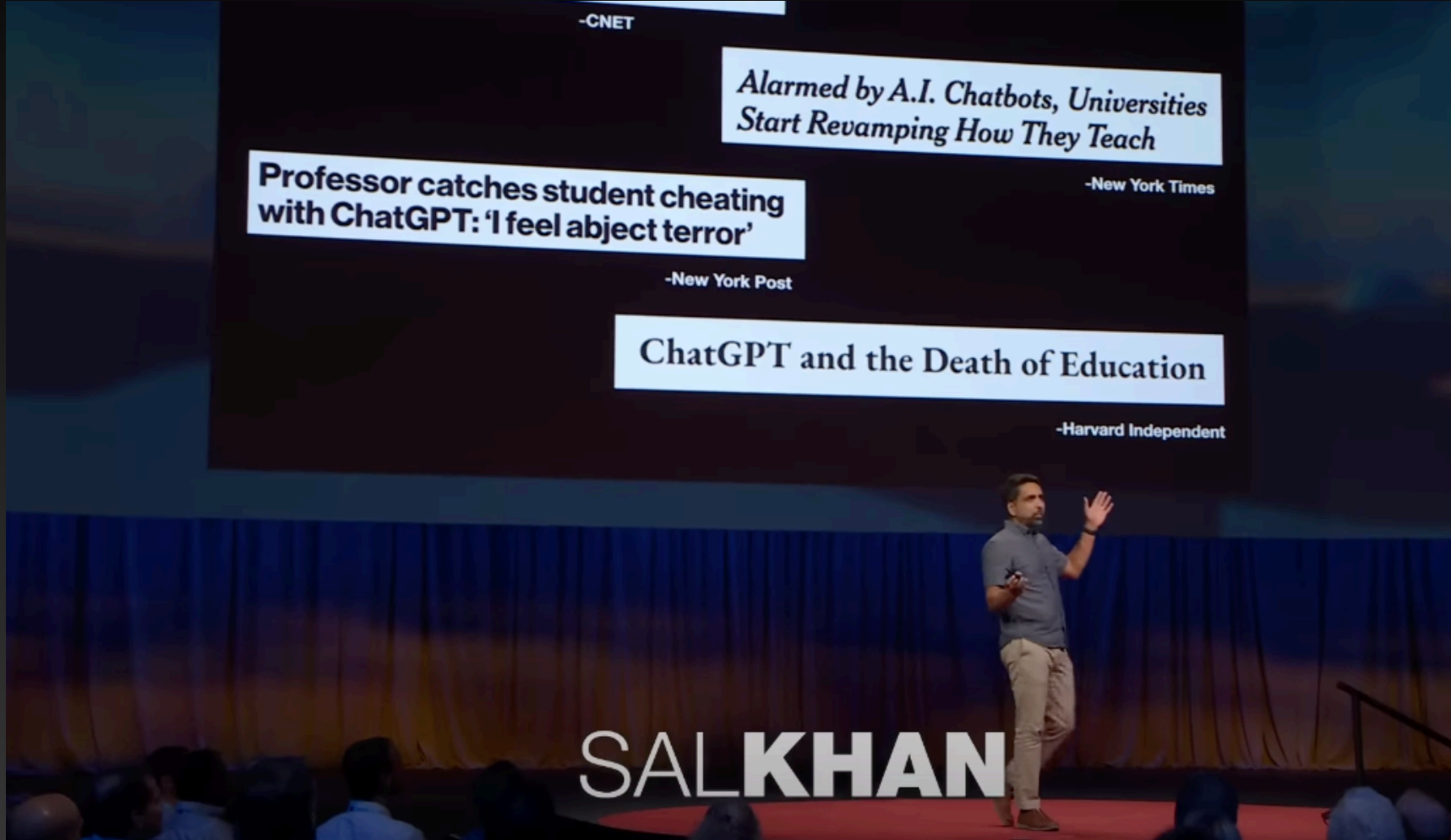


Sal Khan believes that artificial intelligence (AI) has the potential to transform education for the better. "We're at the cusp of using AI for probably the biggest positive transformation that education has ever seen," he said in his 2023 TED talk.





How AI could Save (Not Destroy) Education



SALKHAN

How AI could Save (Not Destroy) Education

Microsoft | Education Products for your school ▾ Featured solution areas ▾ Browse by audience ▾ Getting started ▾ Contact sales

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AI in education · Published May 21, 2024 · 5 min read

Enhancing the future of education with Khan Academy

By Microsoft Education Team



Looking for SAT Math?

Today, we announced a [new partnership with Khan Academy](#) to help turn the promise of AI in education into reality and increase access to innovation. As part of the partnership, Microsoft is enabling Khan Academy to provide free

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How AI could Save (Not Destroy) Education

Today, we announced a [new partnership with Khan Academy](#) to help turn the promise of AI in education into reality and increase access to innovation. As part of the partnership, Microsoft is enabling Khan Academy to provide free access to Khanmigo for Teachers to all US educators, we're collaborating to explore opportunities to improve AI-powered math tutoring with a new open-source small language model, and bringing high-quality education experiences to more learners.

Guidelines on Best Practices for using Generative AI Systems in Education:

1. Use AI tools as a tool and not a replacement:
2. Verify the reliability of AI tools:
3. Respect Copyright and Plagiarism laws:
4. Balance the use of AI tools with traditional learning methods:
5. Use AI tools to enhance creativity:
6. Consider ethical and moral implications:
7. Collaborate with others:

EVALUATE YOUR COURSES

CAN YOUR CURRENT COURSES BE COMPLETED BY AI?

FURTHER READING

[ChatGPT: ChatBots and Artificial Intelligence in Education](#)

[What ChatGPT Will Mean for Teaching](#)

[AI Won't Destroy High School English](#)

[ChatGPT: Game Changing App](#)

[An AI Wrote this Post](#)

[Unlocking the Potential of K-12 Students with ChatGPT](#)

[Unlocking the Power of ChatGPT - 100 Use Cases to Try](#)

[AI, Instructional Design and OER](#)

[Future Tools](#)

[Let's Talk About AI in Teaching and Learning](#)

[Four Things Teachers Can Do to Avoid AI Cheating](#)

[Making New Tech Tools Work for Your Classroom](#)

[Grappling with AI Writing Technologies in the Classroom](#)

