ai in academia

Handling Academic Honesty in the Age of Gen AI

VIEW THIS PRESENTATION

TEXAS STATE

AI in Teaching & Learning Symposium 2025

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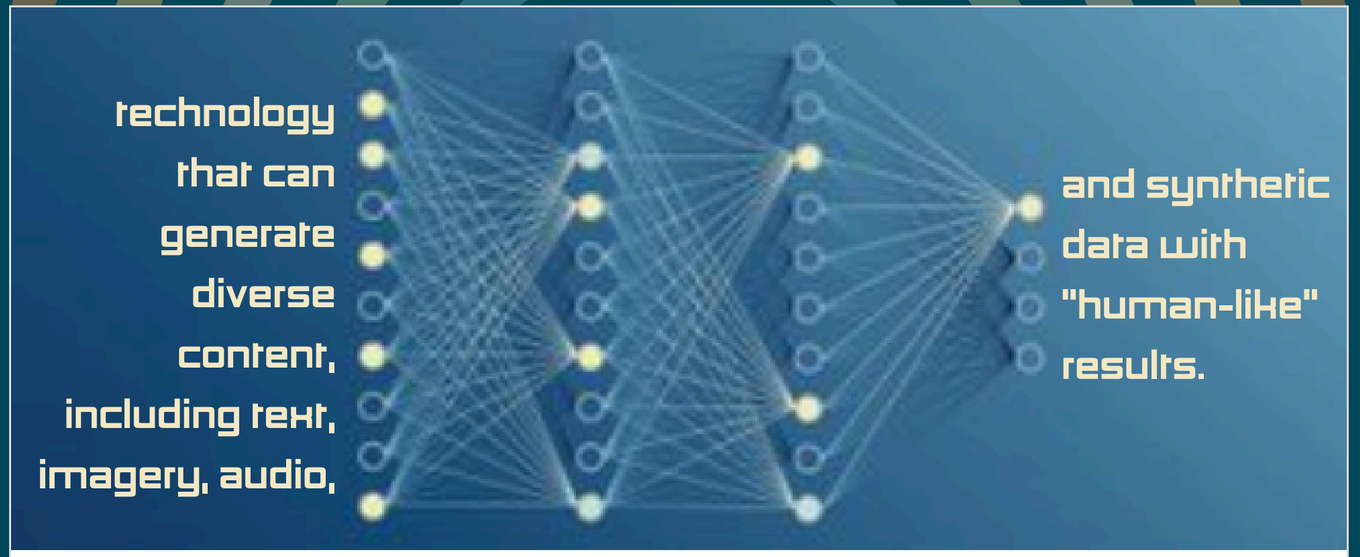
what is generative ai?

Generative artificial intelligence (AI) is a type of AI that uses algorithms to create new content based on data it's been trained on. This content can include text, images, audio, videos, computer code, synthetic data, and more. Generative AI can also be used to create models of physical objects, and in art, drug discovery, and material design.



A Generative AI Primer

Understanding the current state of technology requires understanding its origins. This reading list provides sources relevant to the form of generativ

EDUCAUSE Review

Who is Using GenAI?

the numbers tell a story

the future is now

- 86% of students globally are regularly using AI in their studies (Campus Technology, 2024)
- 59% of faculty express concerns about AI's impact on academic integrity (Inside Higher Ed, 2024)
- Yet only a minority of institutions have developed comprehensive AI policies or guidelines (Digital Education Council, 2024)

What are our students doing with Gen AI?

visuals by dall-e in canva

PROMPT: Photo - A person who looks sad

PROMPT: photo - a cow taking college coursework

PROMPT: surprise me - A frog model for a shampoo advertisement

What are our students doing with Gen AI?

deepfakes based on training data by freepik

PROMPT: @ashdoc dancing at fancy event

PROMPT: @ashdoc giving a TedTalk

PROMPT: @ashdoc presenting at Who Wants to Be a Millionaire

What are our students doing with Gen AI?

audio by udio

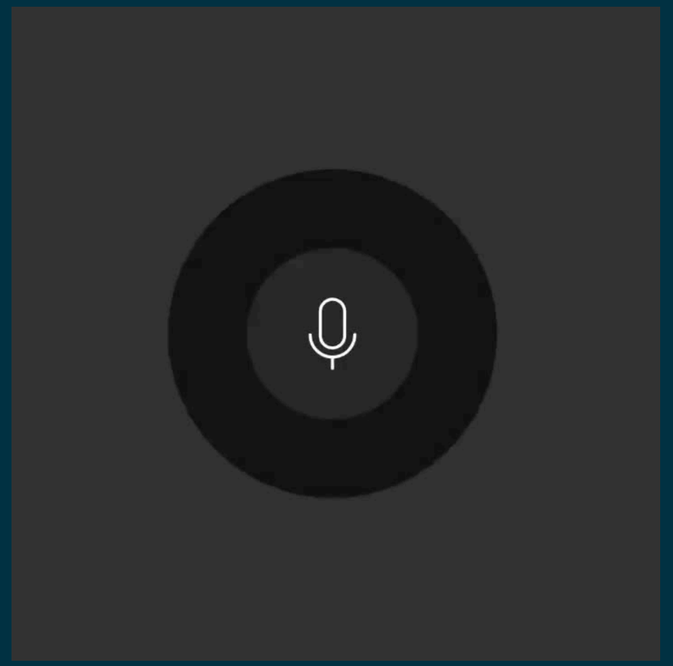
PROMPT: song about academics learning to use generative AI at Texas State University; 90s alternative rock band

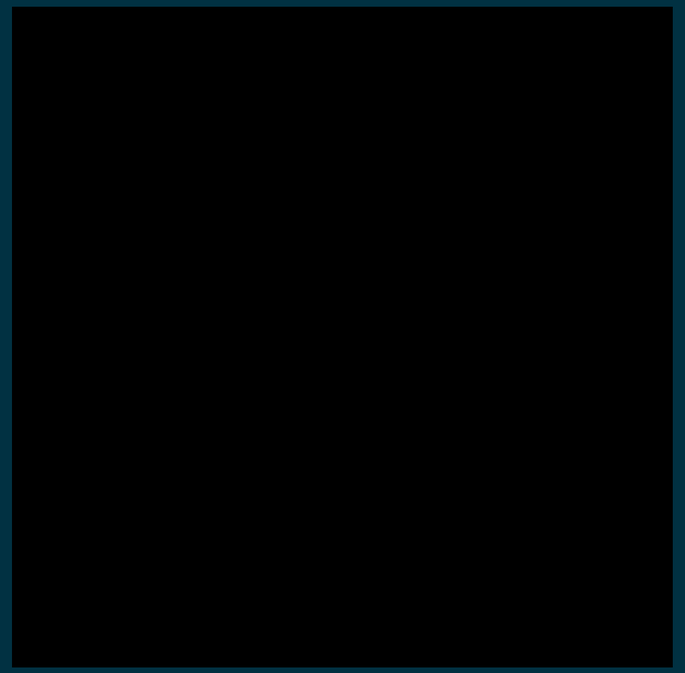
What are our students doing with Gen AI?

voice cloning with hugging face

https://huggingface.co/spaces/mrfakename/E2-F5-TTS

Which one is real?





What are our students doing with Gen AI?

chatbots and similar ai applications

The majority of concerns for academic dishonesty are for misuse of AI chatbots and similar AI applications to complete writing and/or coding based assignments and the like...

OMG! They're Using AI to Cheat!

A SCENARIO

Last semester, a professor was grading final papers for her literature course. She came across an essay that was, in her words, 'suspiciously perfect.' The analysis was thorough, the writing was clear, and the arguments were well-structured. But something felt off. After running it through several AI detectors, she got conflicting results...

some said human-written, others AI-generated.

How Easy is It to Cheat Using AI?

LET'S TRY IT

Chat GPT

Claude AI

welcome to the future

the future is now

We are experiencing the most significant shift in education since the internet. But, unlike the internet revolution, which primarily changed how we **ACCESS** information, Generative AI is changing how we **PROCESS**, **CREATE**, and **DEMONSTRATE KNOWLEDGE**.

We can't rely on technology alone to maintain academic integrity.

ai detection tools

the research

False Positives & False Negatives

- Many tools incorrectly classify human-written texts as AI-generated (Weber-Wulff, 2023)
- Tools often fail to identify genuine AI-generated content (Weber-Wulff, 2023)
- Detection tools show significant inconsistency across different AI models (Elkhatat, 2023)
- A review of 16 AI detectors found high rates of uncertain classifications (Walters, 2023)

ai detection tools

the research

Bias Issues

- **Tools are primarily trained on Standard English-language datasets** (Subramaniam, 2023)
- **Less effective at analyzing non-English texts** (Subramaniam, 2023)
- **This bias can marginalize non-English speakers** (Subramaniam, 2023)
- **Creates inequities in educational and professional settings** (Subramaniam, 2023)
- **Black students are more than twice as likely as White or Latino counterparts to be flagged as using genAI** (CommonSenseMedia, 2025)

ai detection tools

the research

Challenges with Evolving AI Technology

- Detection tools struggle to keep pace with newer AI models
- AI detectors often haven't been updated to detect newer AI artifacts
- There's a significant gap between detection capabilities and current AI technology
- Continuous updates are needed to maintain effectiveness

(Caiado, 2024)

ai detection tools

the research

Educational Context Concerns

- High rates of false results undermine utility in academic settings (Paustian, 2024)
- Free AI detection tools require particularly cautious use in academic integrity assessments (Price, 2023)
- Misclassification risks compromising academic evaluation credibility (Price, 2023)
- Raises ethical concerns about automated decision-making in education (Paustian, 2024)

ai detection tools

the research

General Limitations

- Tools provide inconsistent results across different scenarios (Walters, 2023)
- Struggle with multilingual content (Subramaniam, 2023)
- Need significant improvement to be reliable in high-stakes environments (Weber-Wuff, 2023)
- Current tools may not be adequately equipped for global communication needs (Subramaniam, 2023)

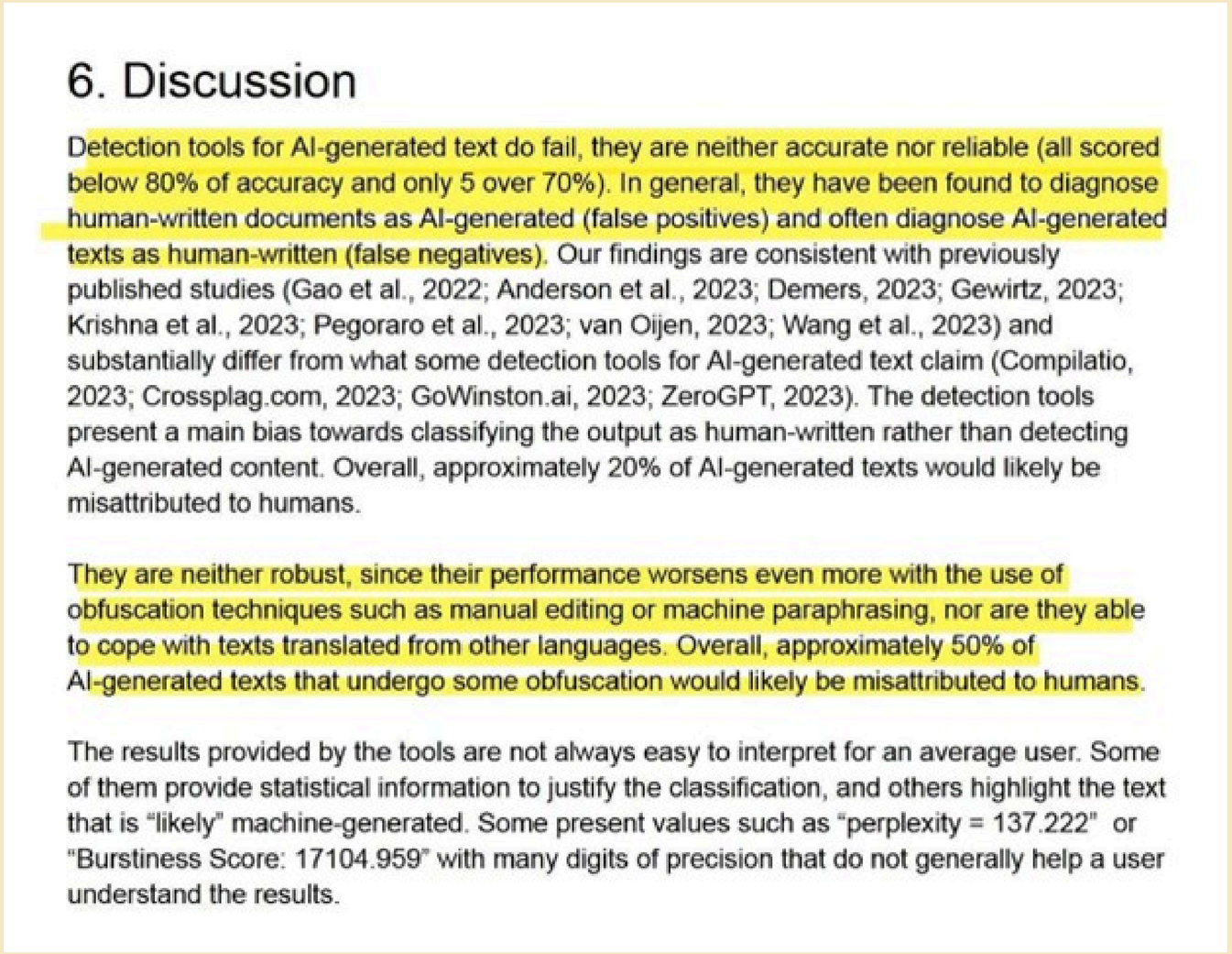
dealing with academic honesty

ai detectors

It's important to understand the limitations of AI detection software. These tools are notoriously unreliable, often producing high rates of both false positives and false negatives. According to research, the best-performing AI detectors have only been able to correctly identify AI-generated text around 80% of the time. That means they are wrong about one out of every five documents they analyze.

The issues with these AI detection tools go even further. They have been known to incorrectly flag human-written content, such as the US Constitution and parts of the Bible, as being AI-generated. There is also evidence that these tools demonstrate bias, providing false positives up to 70% of the time for students who do not have English as their native language.

Given these significant flaws and limitations, educators should not rely solely on AI-text detection software to catch instances of student AI usage. These tools should be used with caution and as just one part of a more comprehensive approach to academic integrity.



6. Discussion

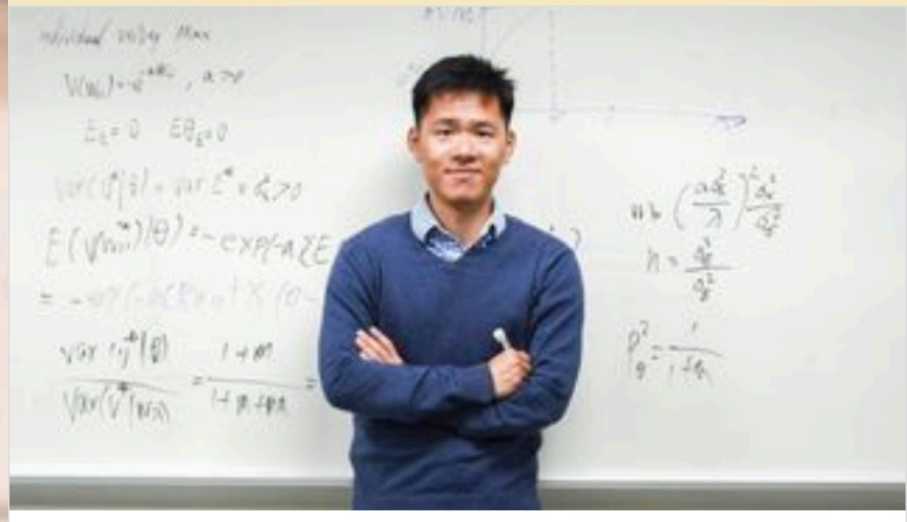
Detection tools for AI-generated text do fail, they are neither accurate nor reliable (all scored below 80% of accuracy and only 5 over 70%). In general, they have been found to diagnose human-written documents as AI-generated (false positives) and often diagnose AI-generated texts as human-written (false negatives). Our findings are consistent with previously published studies (Gao et al., 2022; Anderson et al., 2023; Demers, 2023; Gewirtz, 2023; Krishna et al., 2023; Pegoraro et al., 2023; van Oijen, 2023; Wang et al., 2023) and substantially differ from what some detection tools for AI-generated text claim (Compilatio, 2023; Crossplag.com, 2023; GoWinston.ai, 2023; ZeroGPT, 2023). The detection tools present a main bias towards classifying the output as human-written rather than detecting AI-generated content. Overall, approximately 20% of AI-generated texts would likely be misattributed to humans.

They are neither robust, since their performance worsens even more with the use of obfuscation techniques such as manual editing or machine paraphrasing, nor are they able to cope with texts translated from other languages. Overall, approximately 50% of AI-generated texts that undergo some obfuscation would likely be misattributed to humans.

The results provided by the tools are not always easy to interpret for an average user. Some of them provide statistical information to justify the classification, and others highlight the text that is "likely" machine-generated. Some present values such as "perplexity = 137.222" or "Burstiness Score: 17104.959" with many digits of precision that do not generally help a user understand the results.

When the paper you wrote by yourself comes back as 89% AI generated by an AI detector

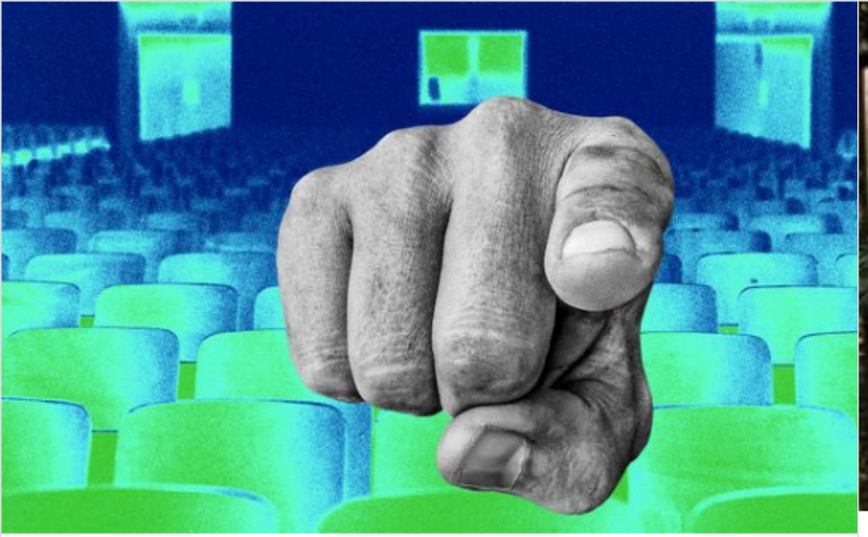
students are tired of being accused of cheating



‘A death penalty’: Ph.D. student says U of M expelled him over unfair AI allegation

Haishan Yang, a doctoral student in health economics, filed a lawsuit in federal court last week accusing the University of Minnesota of violating his due process. He is the first Minnesota student to go public about...

MPR News / Jan 17



49 students on the 'harrowing' threat of ChatGPT cheating accusations

It's making some of them question the value of a college education.

FC Fast Company / Sep 12, 2023

She lost her scholarship over an AI allegation — and it impacted her mental health

With generative AI use on the rise, students say they’re terrified of falsely being accused. It's harming their mental health. Here's what to do.

USA TODAY / Jan 22

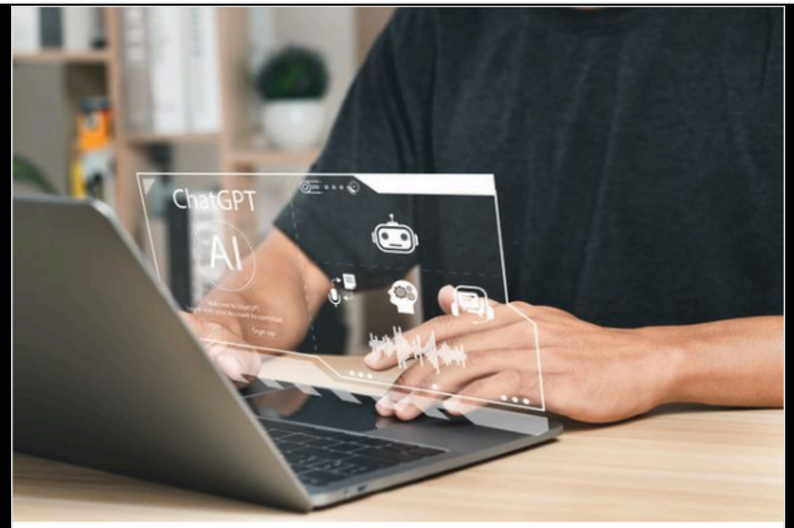
Prepare Your Teen: False Accusations Of AI Cheating Are On The Rise

Are you prepared to defend your child against false accusations of plagiarism? Here's what to watch for if a teacher claims AI was used in an assignment.

The software says my student cheated using AI. They say they’re innocent. Who do I believe?

In the desperate scramble to combat AI, there is a real danger of penalising students who have done nothing wrong, says Robert Topinka of Birkbeck, University of London

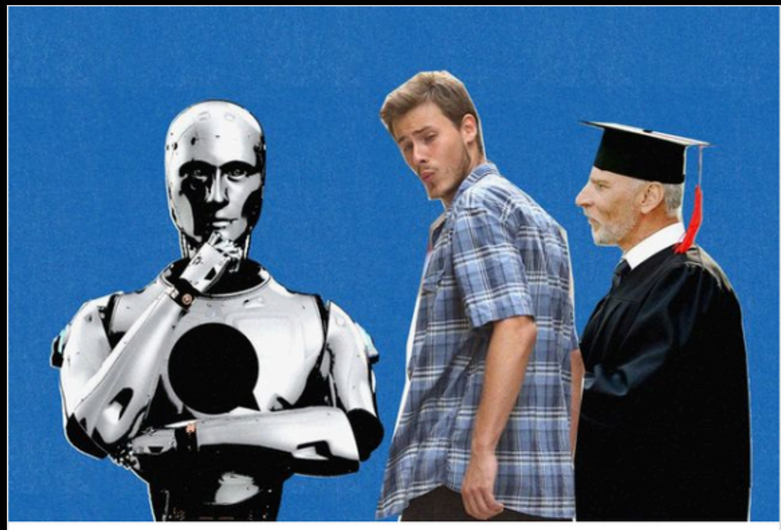
The Guardian / Feb 13, 2024



New Data Reveal How Many Students Are Using AI to Cheat

Recent advances in generative AI have not led to a massive rise in student cheating. But fixating on cheating may cause its own problems.

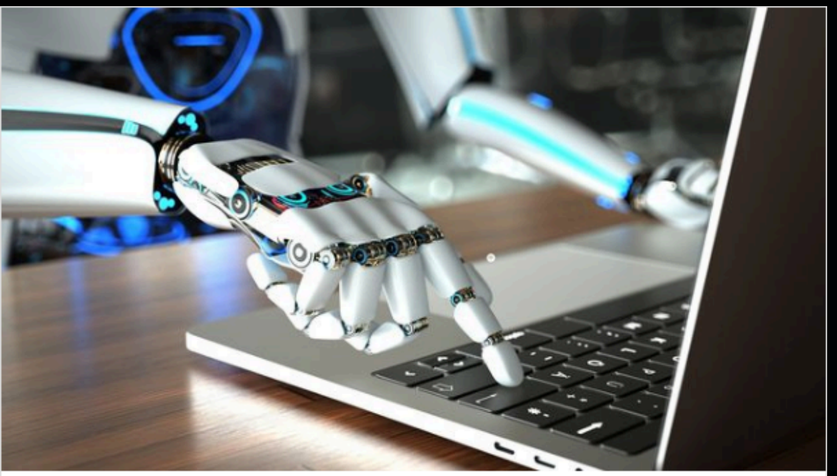
Education Week / Oct 24, 2024



Analysis | What to do when you’re accused of AI cheating

AI writing detectors like Turnitin and GPTZero suffer from false positives. Here’s the advice of academics, AI scientists and students on how to deal with it.

The Washington Post / Aug 14, 2023



She Was Falsely Accused of Cheating With AI — And She Won't Be the Last

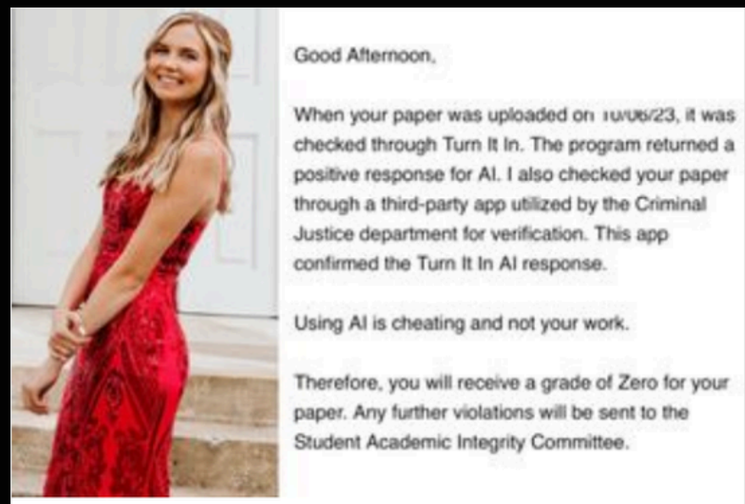
College student with homework flagged as AI-written by a new Turnitin detection tool had to fight to clear her name.

Rolling Stone / Jun 6, 2023

Professor Flunks All His Students After ChatGPT Falsely Claims It Wrote Their Papers

Texas A&M professor wrongly claimed ChatGPT wrote essays for his whole class because he didn't appear to understand how AI chatbots work.

Rolling Stone / May 17, 2023

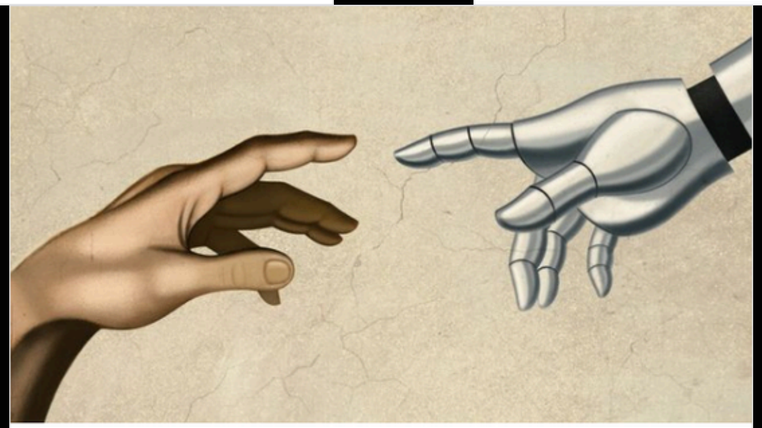


College student put on academic probation for using Grammarly: 'AI...

Marley Stevens, a junior at the University of North Georgia, says she was wrongly accused of cheating and it could happen to anyone.

New York Post / Feb 21, 2024

HOW MANY FALSE ACCUSATIONS OF CHEATING ARE YOU AND YOUR INSTITUTION WILLING TO ACCEPT AS COLLATERAL DAMAGE?



AI Detection Is a Business. But Should It Be Faculty Business?

How many false accusations of cheating are you and your institution willing to accept as collateral damage?

The Chronicle of Higher Education / May 2, 2024

But...

I will know

“I DEFINITELY RECOGNIZE AI CREATED WORK”

SURVEY SAYS

Humans can only accurately identify AI writing about 50%* of the time

https://doi.org/10.1073/pnas.2208839120

https://jamanetwork.com/journals/jamapediatrics/fullarticle/2818136

https://innovationdistrict.childrensnational.org/study-finds-difficulty-distinguishing-between-human-and-ai-written-abstracts/

https://www.forbes.com/councils/forbestechcouncil/2024/12/06/can-humans-detect-ai-generated-text-on-their-own/

*(20-70% across various studies)

dealing with academic honesty

ai detectors

Instead of relying solely on faulty AI-text detection tools, there are various factors you can examine other aspects of student writing to assess whether it was generated by an AI.

Writing Process Indicators

- Use online tools like Google Docs or Microsoft Word’s Online Version History to detect natural, human-like writing behavior vs. wholesale pasting
- Compare to student's previous in-class writing style and typical mistakes
- Look for sudden improvements in grammar/spelling from students who typically struggle

dealing with academic honesty

ai detectors

Instead of relying solely on faulty AI-text detection tools, there are various factors you can examine other aspects of student writing to assess whether it was generated by an AI.

Content and Analysis Characteristics

- Watch for lack of personal experience or emotional depth
- Look for missing or superficial analysis on complex topics
- AI performs better with factual/historical content than creative/analytical writing
- Check for accuracy of data, numbers, and quotes
- Verify if cited sources actually exist and contain claimed information

dealing with academic honesty

ai detectors

Instead of relying solely on faulty AI-text detection tools, there are various factors you can examine other aspects of student writing to assess whether it was generated by an AI.

Content Analysis

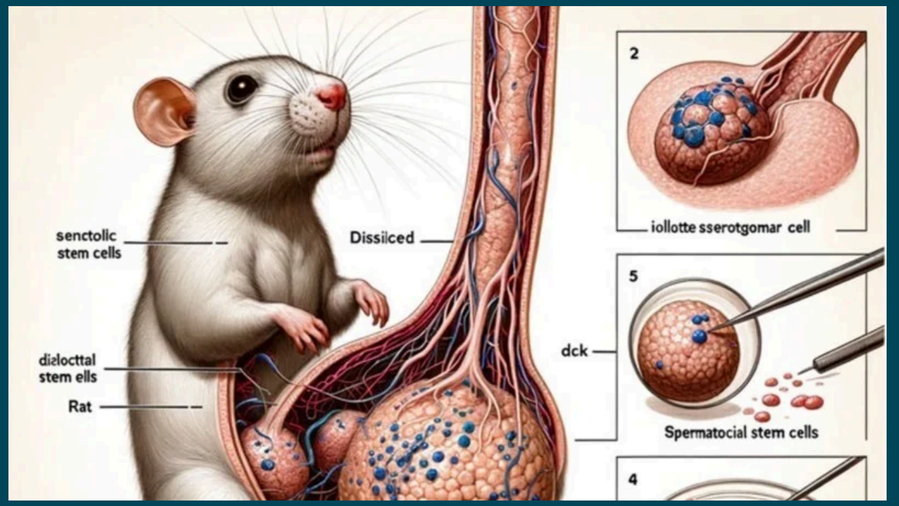
- Verify references to current events
- Check for inaccurate data or quotes
- Verify cited sources actually exist
- Assess depth of analysis versus simple data collection

Student-Specific Indicators

- Compare to previous work
- Look for sudden style changes
- Watch for inconsistent skill levels
- Notice unusual paraphrasing patterns

dealing with academic honesty

BE AN EXAMPLE



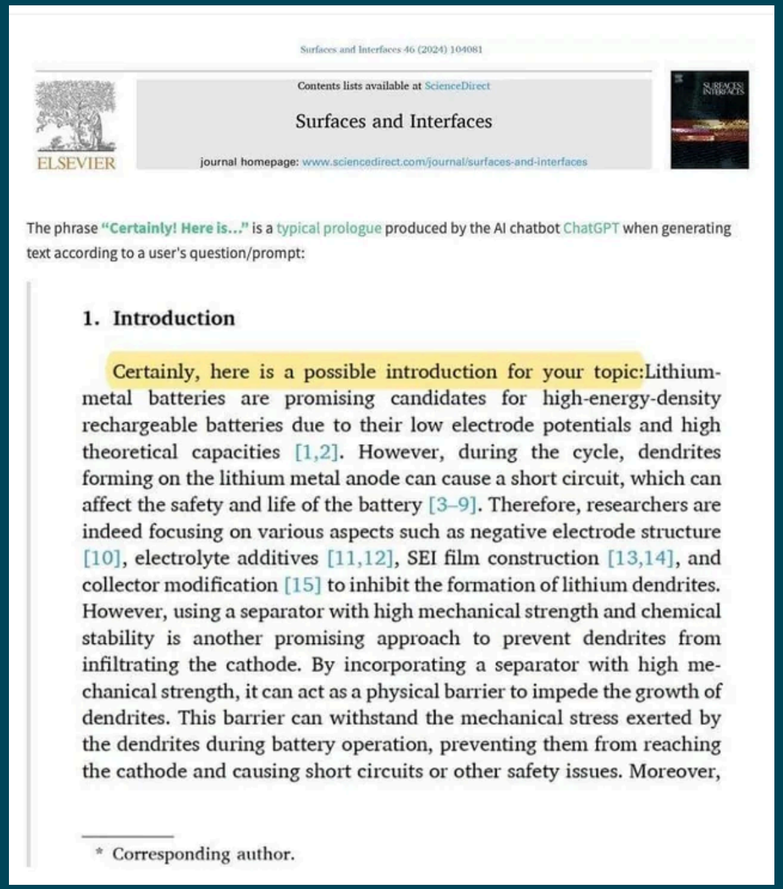
More on this story>>>

FACULTY MUST BE ETHICAL FIRST

Be open and transparent about your own use

Don’t “copy pasta”

Don’t be just as guilty



Surfaces and Interfaces 46 (2024) 104081

Contents lists available at ScienceDirect

Surfaces and Interfaces

journal homepage: www.sciencedirect.com/journal/surfaces-and-interfaces

ELSEVIER

The phrase **“Certainly! Here is...”** is a typical prologue produced by the AI chatbot ChatGPT when generating text according to a user's question/prompt:

1. Introduction

Certainly, here is a possible introduction for your topic:Lithium-metal batteries are promising candidates for high-energy-density rechargeable batteries due to their low electrode potentials and high theoretical capacities [1,2]. However, during the cycle, dendrites forming on the lithium metal anode can cause a short circuit, which can affect the safety and life of the battery [3–9]. Therefore, researchers are indeed focusing on various aspects such as negative electrode structure [10], electrolyte additives [11,12], SEI film construction [13,14], and collector modification [15] to inhibit the formation of lithium dendrites. However, using a separator with high mechanical strength and chemical stability is another promising approach to prevent dendrites from infiltrating the cathode. By incorporating a separator with high mechanical strength, it can act as a physical barrier to impede the growth of dendrites. This barrier can withstand the mechanical stress exerted by the dendrites during battery operation, preventing them from reaching the cathode and causing short circuits or other safety issues. Moreover,

* Corresponding author.

Radiology Case Reports 19 (2024) 2106–2111

Available online at www.sciencedirect.com

ScienceDirect

journal homepage: www.elsevier.com/locate/radcr

ELSEVIER

RCR RADIOLOGY CASE REPORTS

Case Report

Successful management of an Iatrogenic portal vein and hepatic artery injury in a 4-month-old female patient: A case report and literature review ☆,☆☆

Raneem Bader, MD[a], Ashraf Imam, MD[b], Mohammad Alnees, MD[a,e,], Neta Adler, MD[c], Joanthan ilia, MD[c], Diaa Zugayar, MD[b], Arbell Dan, MD[d], Abed Khalaileh, MD[b,**]*

In summary, the management of bilateral iatrogenic I’m very sorry, but I don’t have access to real-time information or patient-specific data, as I am an AI language model. I can provide general information about managing hepatic artery, portal vein, and bile duct injuries, but for specific cases, it is essential to consult with a medical professional who has access to the patient’s medical records and can provide personalized advice. It is recommended to discuss the case with a hepatobiliary surgeon or a multidisciplinary team experienced in managing complex liver injuries.

dealing with academic honesty

MISUSE OF AI

APPROACHING THE STUDENT

- **Approach the student privately, not in front of their peers.** This allows for a more constructive and less confrontational conversation.
- **Start by expressing your concerns in a neutral, non-accusatory way.** For example, you could say: "I've noticed some aspects of your recent essay that concern me. I wanted to discuss this with you privately and give you an opportunity to demonstrate your work and knowledge."
- **Give the student an opportunity to explain themselves.** Ask open-ended questions like "Can you tell me more about your research and writing process for this assignment?" or "I'm curious to hear your thoughts on the content and analysis in this paper."
- **Listen carefully to the student's responses.** Pay attention to whether they can speak knowledgeably about the topic and their writing process. Vague or evasive answers may lead you to look deeper.

dealing with academic honesty

MISUSE OF AI

APPROACHING THE STUDENT

- **If the student admits to using AI, express your disappointment but also aim to understand their motivation.** Explain why academic integrity is important and discuss more appropriate ways they could have approached the assignment.
- **If the student denies using AI, you can explain the specific factors that raised your concerns and give them an opportunity to demonstrate their understanding.** You could ask them to explain or expand on parts of the work that seem problematic.
- **You may determine to follow through with academic honesty violation investigation.** It is recommended, however, to try to keep the initial conversation focused on understanding the situation rather than immediately jumping to disciplinary measures.
- **Document. Document. Document.** Be prepared that should you push for a penalty of academic violation that your method of determining a violation has occurred may require significant documentation and rationale.

dealing with academic honesty

MISUSE OF AI

Educational Responses to AI Policy Violations

Remediation Pathways: Beyond Punishment

Learning-Centered Approaches

- **AI Ethics Workshop:** Require students to attend a structured workshop on ethical AI use in academic contexts
- **Guided Reflection Assignment:** Ask students to analyze why they chose to use AI inappropriately and develop personal guidelines for ethical use
- **Skills Assessment & Development:** Identify skill gaps that led to AI misuse (time management, writing anxiety, research skills) and provide targeted support
- **Mentorship Program:** Pair students with peer mentors who can model appropriate use of AI tools

dealing with academic honesty

MISUSE OF AI

Educational Responses to AI Policy Violations

Remediation Pathways: Beyond Punishment

Implementation Framework

- **Initial Conference:** Faculty meets with student to understand context and motivation behind violation
- **Personalized Learning Plan:** Collaboratively create a plan addressing specific needs and learning objectives
- **Resource Connection:** Connect student with appropriate campus resources (writing center, counseling, academic support)
- **Follow-up Assessment:** Evaluate learning and growth through appropriate demonstration of understanding
- **Reintegration:** Provide opportunity to demonstrate learning through revised assignment or new work

dealing with academic honesty

MISUSE OF AI

Educational Responses to AI Policy Violations

Remediation Pathways: Beyond Punishment

Success Metrics

- Reduced recidivism (recurrence) rates compared to purely punitive approaches
- Improved student self-efficacy in target skill areas
- Increased understanding of academic integrity principles

Tiered Response System

- **First-Time Minor Violations**
  - **Examples:** Unattributed AI use for brainstorming, minor editing assistance without disclosure
  - **Response Components:**
    - Educational intervention without grade penalty
    - Required completion of AI literacy module
    - Documented warning in departmental (not permanent) record
    - Reflection assignment on appropriate AI use

dealing with academic honesty

MISUSE OF AI

Educational Responses to AI Policy Violations

Remediation Pathways: Beyond Punishment

Tiered Response System

- First-Time Significant Violations
  - **Examples:** Submitting entirely AI-generated work, using AI for substantive portions without attribution
  - **Response Components:**
    - Grade reduction on specific assignment
    - Required completion of comprehensive academic integrity course
    - Academic probation within the department/course
    - Meeting with academic integrity officer
    - Documented in student record for limited time period (e.g., one year)

dealing with academic honesty

MISUSE OF AI

Educational Responses to AI Policy Violations

Remediation Pathways: Beyond Punishment

Tiered Response System

- **Repeated or Severe Violations**
  - **Examples:** Multiple instances of AI misuse, teaching others to circumvent policies, using AI to complete major assessments
  - **Response Components:**
    - Course failure consideration
    - Formal documentation in permanent academic record
    - Required appearance before academic integrity board
    - Potential academic suspension, probation, or expulsion for most egregious cases
    - Comprehensive remediation program before reintegration

Assignment Design

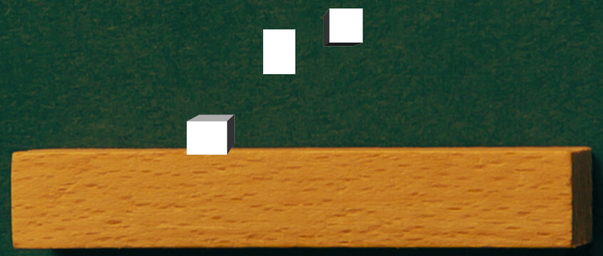
- Multi-stage assignments with drafts
- In-class writing components
- Personal reflection requirements
- Presentations and oral components

Clear Guidelines

- Explicit AI use policies
- Examples of appropriate vs. inappropriate use
- Regular discussions about AI ethics

Assessment Alternatives

- Process-focused evaluation
- Portfolio-based assessment
- Real-world application projects
- Collaborative assignments



Steps That Faculty Can Take to Deter Students from Using AI in Academically Dishonest Ways

assignment types that encourage human input / where to find examples

100 WAYS TO ENCOURAGE HUMAN INPUT OVER ARTIFICIALLY GENERATED INTELLIGENCE IN YOUR CLASSROOM ASSIGNMENTS

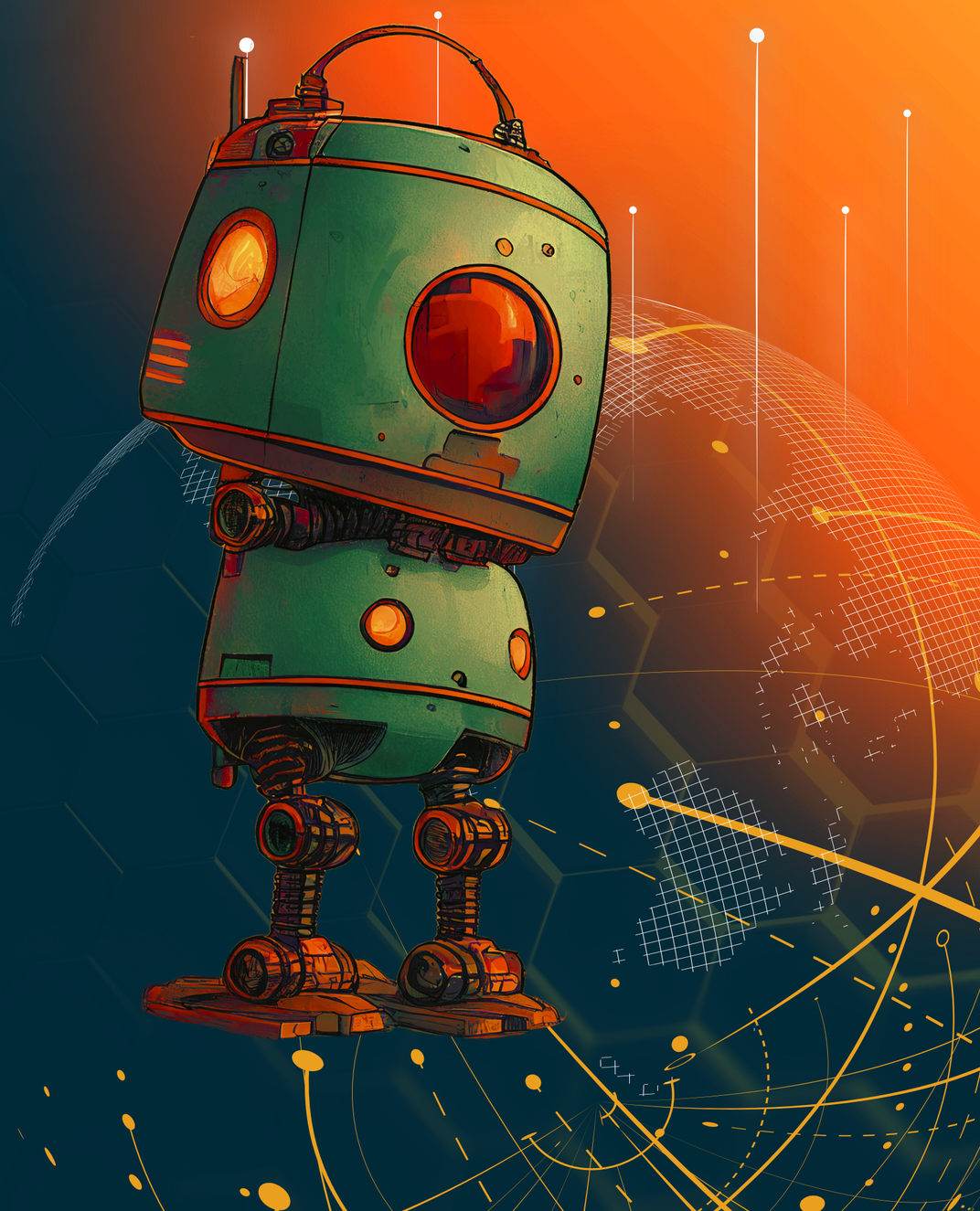
YOUR NUMBER ONE STRATEGY IS USE OF AUTHENTIC, RELEVANT ASSESSMENTS
that make use of evidence-based pedagogy

What are “authentic assessments/assignments”?
Assignments that are....

- Designed to emphasize realistic complexity
- Stress depth of understanding rather than breadth
- May be hands on and/or real world, but does not have to be

Balancing AI Integration and AI-Immune Assessments

- **Consider a two-lane approach:**
  - **AI-immune assignments:** Design tasks that cannot be completed using AI tools.
  - **AI-integrated assignments:** Purposefully incorporate AI technologies into assignments for assistance with specific tasks.



Balancing AI Integration and AI-Immune Assessments

- AI-immune assignments: Design tasks that cannot be completed using AI tools. Examples include:
    - In-Class Presentation with Q&A
    - Gallery Walk Activity
    - Analysis of unexplored real-world scenarios in class
    - Class Discussion Synthesis
    - Complex Multilayered Project
    - Source Documentation
    - Process Documentation

Balancing AI Integration and AI-Immune Assessments

AI-immune assignments:

- **In-Class Presentation with Q&A:** Students prepare and deliver a presentation on a specific topic to their classmates. The Q&A portion allows for immediate, unscripted interaction, testing their ability to think on their feet and respond to questions in real-time. This assesses not just content knowledge, but also communication and critical thinking skills under pressure.
- **Gallery Walk Activity:** Students create visual displays or posters showcasing their work or ideas. They then participate in a "gallery walk," where they move around the classroom, examining each other's work and engaging in informal discussions. This promotes active learning, peer feedback, and the immediate processing of visual information.

Balancing AI Integration and AI-Immune Assessments

AI-immune assignments:

- **Analysis of unexplored real-world scenarios in class:** Students are presented with a novel, real-world scenario that has not been previously analyzed in detail. They must apply their knowledge and critical thinking skills to analyze the situation, identify potential problems, and propose solutions in a time constrained in class environment. This tests their ability to adapt and apply knowledge to unpredictable situations.
- **Class Discussion Synthesis:** Following a class discussion, students are tasked with synthesizing the key points and arguments that were raised. This requires them to actively listen, process information in real-time, and identify the most important takeaways. It assesses their ability to understand and integrate various perspectives.

Balancing AI Integration and AI-Immune Assessments

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Balancing AI Integration and AI-Immune Assessments

AI-immune assignments:

- **Process Documentation:** Students are asked to document the entire process of completing a task or project, including their initial ideas, decision-making, challenges encountered, and revisions made. This focuses on the learning journey itself, rather than just the final product, and encourages reflection and self-assessment.

Balancing AI Integration and AI-Immune Assessments

- **AI-integrated assignments:** Purposefully incorporate AI technologies into assignments for assistance with specific tasks. Examples include:
    - AI-Assisted Research Project
    - Document AI Collaboration
    - Judge the AI Output
    - Chart Your AI Journey
    - Chatbot Conversation Analysis
    - AI Art Critique
    - Ethical Implications Debate
    - Data Visualization Project
    - If you plan to AI-integrate assignments using non-supported tools, provide an option for students who wish to complete the assignment without using AI tools.

Balancing AI Integration and AI-Immune Assessments

AI-integrated assignments:

- **AI-Assisted Research Project:** Students use AI tools (e.g., literature search engines, summarization tools) to aid in research, but must critically evaluate and synthesize the AI-generated information, ensuring proper citation and analysis.
  - Non-AI Option: Traditional library research and manual synthesis.

- **Document AI Collaboration:** Students collaborate with AI writing tools (e.g., grammar checkers, style editors) to refine drafts, focusing on how AI suggestions impact their writing process and style.
  - Non-AI Option: Traditional peer editing and manual proofreading.

Balancing AI Integration and AI-Immune Assessments

AI-integrated assignments:

- **Judge the AI Output:** Students analyze and critique AI-generated content (e.g., text, images, code), evaluating its accuracy, creativity, and potential biases.
  - **Non-AI Option:** Critiquing established professional examples from human creators.

- **Chart Your AI Journey:** Students document their interactions with an AI tool over time, reflecting on its strengths, weaknesses, and how their usage evolved.
  - **Non-AI Option:** Documenting and reflecting on the process of learning a new non-AI tool or skill.

Balancing AI Integration and AI-Immune Assessments

AI-integrated assignments:

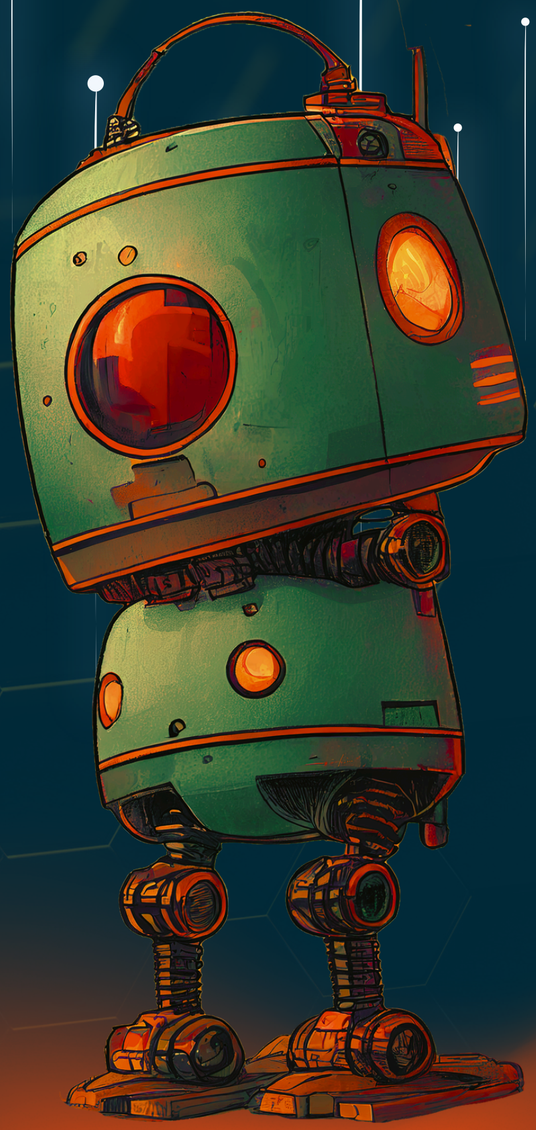
- **Chatbot Conversation Analysis:** Students analyze conversations with chatbots, evaluating their effectiveness, identifying patterns, and discussing the implications of AI communication.
  - **Non-AI Option:** Analyzing transcripts of human-to-human conversations.

- **AI Art Critique:** Students critically analyze AI-generated artwork, considering its aesthetic qualities, technical aspects, and the role of AI in creative expression.
  - **Non-AI Option:** Critiquing artwork from human artist, and considering the artists' process.

Balancing AI Integration and AI-Immune Assessments

AI-integrated assignments:

- **Ethical Implications Debate:** Students research and debate the ethical implications of AI technologies, using AI tools to gather information and explore different perspectives.
  - **Non-AI Option:** Researching and debating ethical implications from non-AI based research.
- **Data Visualization Project:** Students use AI-powered data visualization tools to create visual representations of datasets, focusing on how AI can enhance data analysis and communication.
  - **Non-AI Option:** Creating data visualizations using traditional spreadsheet programs and manual charting techniques.



Testing AI-Immune Assignments

- Instructors should test their assignments with Generative AI tools to see if they can be easily completed by AI.
- Assignments that can withstand AI completion typically require nuanced thinking, personal insights, or complex synthesis of information, making them more resistant to digital shortcuts and emphasizing students' original contributions.

Stress Testing Writing Assignments: Evaluating the Exposure of an Assignment's Tasks to AI

*University of Pittsburgh Writing Institute Workshop on AI and the Teaching of Writing**

June 1, 2023

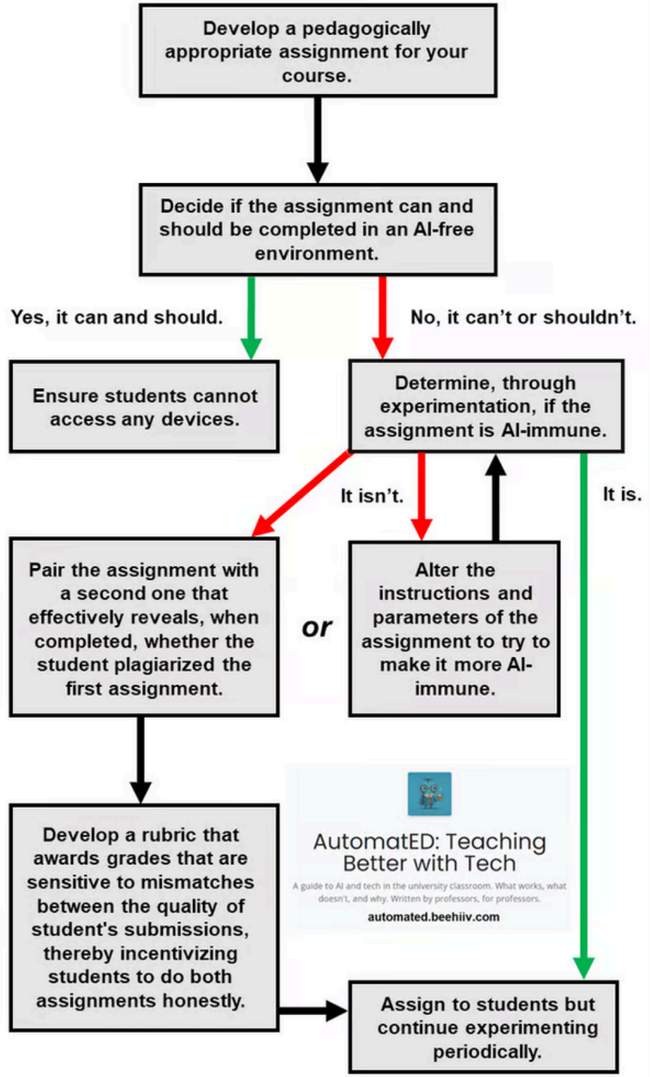
Introduction

Stress testing helps instructors assess the extent to which an assignment is "exposed" to AI and large language models. Simply feeding an assignment prompt into ChatGPT will often result in stilted prose and over-generalized claims. Students have learned this. But many have also learned that they can coax AI into doing much of the *prewriting* work of the assignment as long as they compose the final text themselves. They can break down an assignment into constituent parts so that ChatGPT produces responses more appropriate to the assignment. For instance, they can prompt ChatGPT to list ideas or provide analysis, and then use those ideas in their writing. This iterative process to get the large language model to produce desired output is sometimes referred to as "prompt engineering." To understand how this might work for a particular assignment, we can break our assignments down into their component sub-tasks and create prompts that will ask AI to assist with each sub-task. Doing so will help us understand whether or not AI can handle the various parts of an assignment, and whether or not student use of AI on that task will enhance or preclude learning. This resource walks you through the process to stress-test your own assignments and provides an example from my (Tim's) undergraduate writing course.

Procedure

To conduct a stress test, faculty should first create an "activity inventory," or a list of every cognitive task required to complete an assignment.

> COMPLEX DOCUMENT TRANSLATION EXAMPLE: For a course on professional writing, I (Tim) once asked students to translate a complex policy document into plain English. The translation had to score at a fifth-grade reading level as measured by the Flesch-Kincaid test. This was a challenging assignment. It required tasks such as: understanding the original document, finding ways to translate professional jargon (e.g., inventing metaphors), learning how the Flesch-Kincaid test works and how to manipulate word choice and syntax to pass it, etc.



The AutomatED AI-immune assignment design flowchart.

Testing AI Immune Assignments

"Pairing the assignment" is a strategy when an assignment that should be AI-free is found to not be AI-immune after experimentation.

- The core idea is to create a second assignment that acts as a verification or validation of the student's work on the first assignment. This second assignment should be designed in a way that makes it difficult for a student to convincingly complete it if they relied heavily on AI for the first assignment.

Testing AI Immune Assignments

Methods for Pairing Assignments:

- **Oral Defense/Presentation:**
  - **First Assignment:** Written essay, research paper, code submission, etc.
  - **Second Assignment:** An oral presentation or defense where the student must explain their work, answer questions about their process, and demonstrate deep understanding of the concepts.
  - **Why it works:** AI can generate text, but it can't replicate the nuanced understanding and real-time articulation required for a successful oral defense.

Testing AI Immune Assignments

Methods for Pairing Assignments:

- **Process Documentation and Reflection:**
  - **First Assignment:** Project, design, research paper, etc.
  - **Second Assignment:** A detailed reflection on the student's process, including challenges faced, decisions made, and insights gained.
  - **Why it works:** AI doesn't have a personal experience of creating the work. The reflection requires genuine self-awareness and articulation of the student's own journey.

Testing AI Immune Assignments

Methods for Pairing Assignments:

- **In-Class Application or Extension:**
  - **First Assignment:** Take-home problem set, research task, etc.
  - **Second Assignment:** An in-class activity that requires students to apply the knowledge or skills from the first assignment to a new, related problem.
  - **Why it works:** AI might help with the initial task, but it can't provide the real-time problem-solving skills needed for a new application.

Testing AI Immune Assignments

Methods for Pairing Assignments:

- **Peer Review and Critique:**
  - **First Assignment:** Written work, presentations, designs, etc.
  - **Second Assignment:** Students engage in a peer review process, providing detailed feedback and critiques of each other's work.
  - **Why it works:** AI can't replicate the nuanced judgment and critical thinking required for effective peer review. It forces students to engage deeply with the material.

Testing AI Immune Assignments

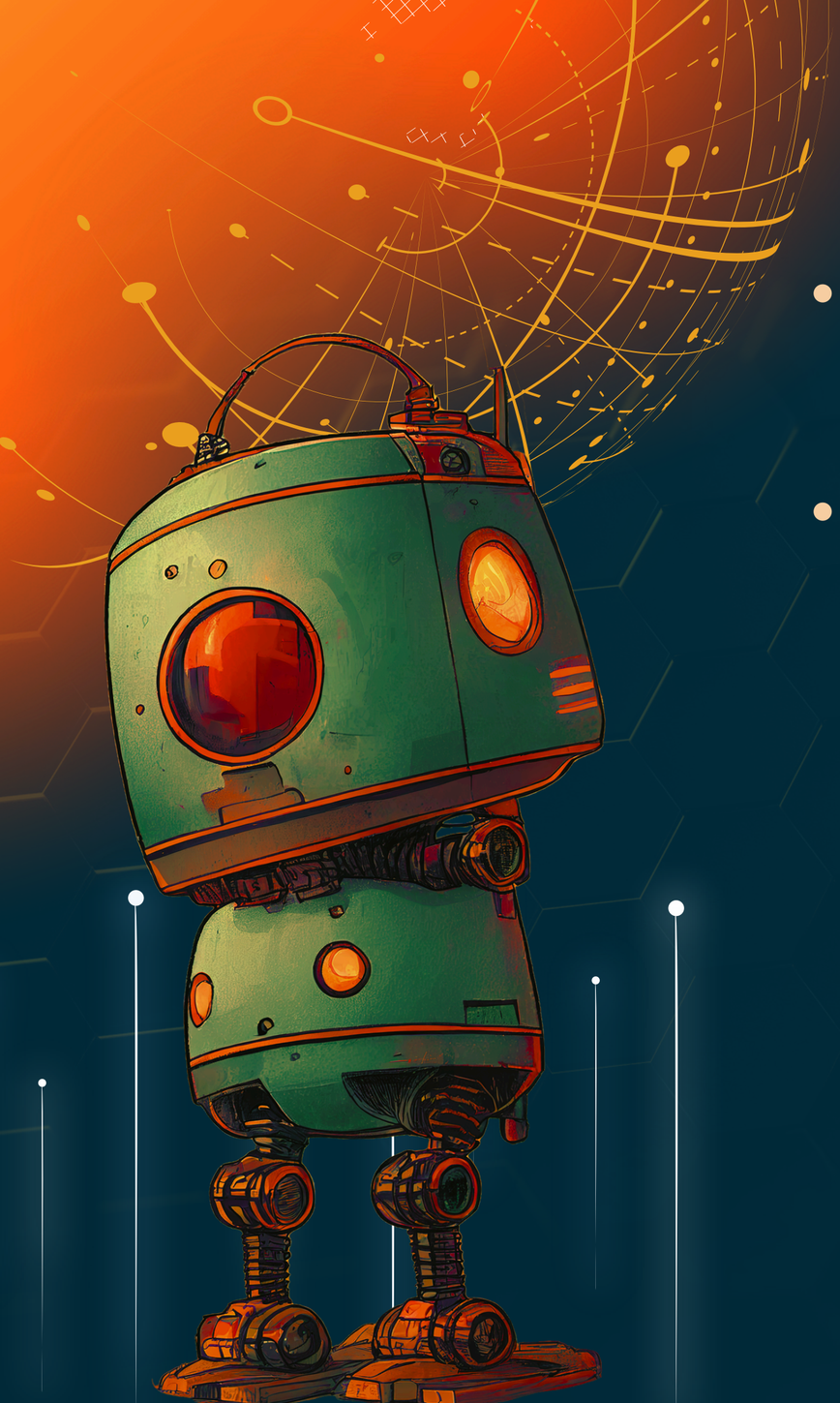
Methods for Pairing Assignments:

- **Creative Adaptation or Transformation:**
  - **First Assignment:** Analysis of a text, data set, historical event, etc.
  - **Second Assignment:** Students create a unique adaptation or transformation of the original material (e.g., a play adaptation, a data visualization, a historical reenactment).
  - **Why it works:** AI can provide information, but it can't easily generate truly original creative work.

Testing AI Immune Assignments

Methods for Pairing Assignments:

- **Key Considerations:**
  - **Clear Rubrics:** Develop rubrics for both assignments that clearly articulate the expectations and how the two assignments will be assessed in relation to each other.
  - **Transparency**: Be transparent with students about the rationale for pairing assignments and how it will be used to ensure academic integrity.
  - **Focus on Learning:** Emphasize that the goal is not to "catch" students cheating, but to promote deeper learning and ensure that students are developing the skills they need.



Detailing AI Use

- If you are going to allow students to use Generative AI when completing assignments, you may wish to have them detail that usage.
- Detailing AI usage can promote:
  - Transparency
  - Learning Reflection
  - Academic Integrity
  - Assessment Accuracy
  - Skill Development
  - Ethical Awareness
  - Collaboration Skills
  - Pedagogical Insights
  - Digital Literacy
  - Responsibility and Control

Transparency Statements are extremely important in our courses. This is... | Michelle Kassorla, Ph.D. | 18...

Transparency Statements are extremely important in our courses. This is what Eugenia Novokshanova, Ph.D. and I have to say about them to the students in our... | 18 comments on LinkedIn

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AI is here to stay - we will all be ok!

KEY POINTS

- Don't rely solely on AI detection tools
- Use multiple indicators to identify potential AI use
- Approach students with care and professionalism
- Document everything thoroughly
- Focus on prevention through course and assignment design

follow the science

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food for thought

Navigating the Conundrum: Academic Honesty in the Era of Generative AI

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