



Artificial Intelligence

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What is AI?

- Artificial Intelligence (AI) refers to computer systems that can perform tasks that once required human intelligence.
- Computers do this by taking in large amounts of data, processing it, and learning from their past in order to streamline future processes.
- Examples of these tasks are:
 - visual perception
 - speech recognition
 - decision-making
- AI has taken many shapes and forms over recent years:
 - Mobile Phones (Siri/Cortana)
 - Self Driving Cars
 - GPS/Voice Recognition
 - Robotics

History of AI

- 1950s: Alan Turing published the “Turing Test” of computer and machine intelligence to determine if such intelligence is indistinguishable from that of a human; the term “artificial intelligence” was first coined.
- 1980s: “Deep Learning” techniques are developed, allowing computers to learn from their mistakes and make independent decisions.
- 1990s: AI enters everyday life (Roomba, speech recognition software); Deep Blue beats a human chess champion.
- 2020s: surge of common-use AI: virtual assistants, search engines; emergence of Deep Learning and Big Data.
- 2020: OpenAI launches GPT, which uses Deep Learning to create content almost indistinguishable from those created by humans.

Generative AI

- Generative AI describes algorithms that can be used to create new content, such as text, imagery, audio and synthetic data.
- Examples: ChatGPT, DALL-E
- This new content is based on patterns in existing content, and build text by predicting most likely words.
- Generative AI can be used to compose essays, lesson plans, curriculum, etc.

What About Biometric Data?

- One application of AI that we do know is prohibited is the use of facial recognition technology. By order of the Commissioner dated September 27, 2023, a school district may not purchase or utilize facial recognition technology.
- Schools can decide whether to use biometric identifying technology other than facial recognition technology at the local level so long as they consider the technology's privacy implications, impact on civil rights, effectiveness, and parental input.
- School districts may still utilize technology for fingerprint identification of prospective school employees.



Balancing Concerns Over Academic Fraud with the Promises of Academic Benefit

Plagiarism

- One area school district's Code of Conduct defined plagiarism as “the act of stealing and passing off as one's own, the ideas or words of another, or using a created production without giving credit to the source.”
- Legal issue – should Codes of Conduct be updated to reflect the use of AI on assignments, or should that be left to teachers who inform students of their responsibilities at the start of each school year?
- It is recommended that, if any form of AI is used on an assignment, a disclosure statement should be required by the classroom teacher, explaining how the AI was used.

Plagiarism Cont'd - Attribution

- Links to AI chats can be available in most LLM models. If a teacher allows students to use AI, the link will allow the teacher to access a student's prompt language to verify search terms and instructions to ascertain how much assistance the AI provided the student.
- Q. How would a school prove AI generated plagiarism occurred? As noted in previous slides, AI is advanced enough to mimic human responses, and the jury is out on the efficacy of AI detectors.
- Would the Commissioner uphold a suspension and/or grade reduction of a student suspected of plagiarism with evidence from an AI detector?

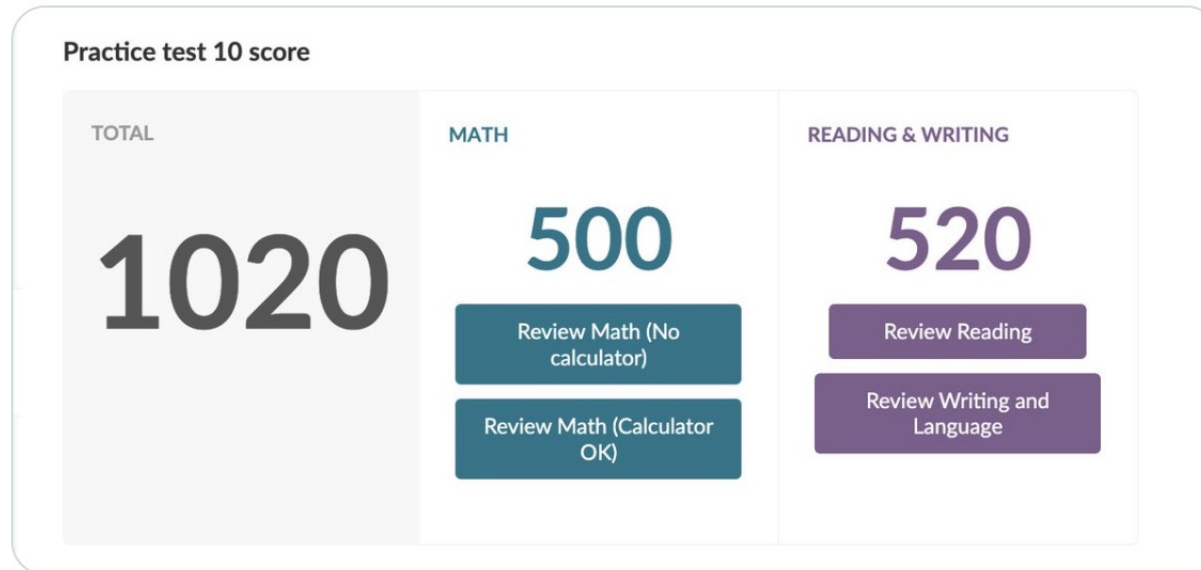
Creating False Documentation

- There are AI programs that create works of art. If an AI is sophisticated enough to replicate a Rembrandt, or create something similar from scratch, how hard can it be to duplicate a parent's signature on a document?

Cheating



I made ChatGPT take a full SAT test. Here's how it did:



2:53 PM · Dec 2, 2022

Detection

- LLM's such as ChatGPT are sophisticated enough that they can draft prose in a manner that can readily evade detection.
- There are some products in the market that hold themselves out to be AI detectors, such as GPTZero and Turnitin. As with any competing technologies, it will become a race to see who can get to the top. There is some doubt among commentators as to whether AI detectors are sufficiently dependable enough to detect if a student cheated or plagiarized another work. For example, OpenAI (the folks behind ChatGPT) has abandoned its work on AI detection tools.

See Pia Ceres & Amanda Hoover, Kids Are Going Back to School. So Is ChatGPT, wired (August 23, 2023 7:00 AM), <https://www.wired.com/story/chatgpt-schools-plagiarism-lesson-plans/>

Detection Cont'd

- In addition, given the current state of AI detectors, problems may arise, including but not limited to:
 - False positives
 - Additional work for teachers
 - Lack of transparency on how AI detectors work
 - Discrimination against non-native English speakers
 - AI detection can be circumvented

See Holly Clark, Why AI Detectors Are Problematic and What To Do Instead, infused classroom, <https://www.hollyclark.org/2023/09/22/why-ai-detectors-are-problematic-and-what-to-do-instead/> (last visited April 3, 2024).

Section 504 Implications

- If a school district decides to not only allow AI, but utilize it in the classroom, the district must ensure that the AI is accessible to all students and instructional staff.
- For example, if a student has a visual impairment, and their classmates all are allowed access to ChatGPT, the visually impaired student may need an accommodation to allow the student to access ChatGPT through other means (i.e. speech to text + prompt readback for proof reading before submitting a prompt instruction).

The Return of Pen and Paper?

Potential(?) Solutions:

- Allow AI for assignments, but test aptitude with oral exams, or pen and paper in-class assignments.
- Allow students to demonstrate knowledge of material in ways other than through AI.



AI and School Board Policies

AI – Policy Implications for School Districts

Some district policies may have to be reviewed (for consideration of possible revisions) regarding AI; e.g.:

- Code of Conduct – e.g., plagiarism, prohibited conduct;
- Compliance with Intellectual Property law;
- Internet Safety (CIPA);
- Computer Use In Instruction;
- Student Records;
- Equal Opportunity;
- Data Security Breach and Notification.

AI – Policy Implications for School Districts Cont'd

- Inherent problem with drafting a fact-laden policy on AI is that the policy may become obsolete before the ink dries on the policy language. . .

AI – Policy Implications for School Districts Cont’d

NYSSBA Policy (“8636”) on AI:

- acknowledges equity issues regarding use of AI by students;
- Points out limitations on use of AI detection tools (including possible bias against English Language Learners);
- points out responses by Generative AI “may be biased, wrong, or violate copyright laws”;
- references existing policies on acceptable use of computers and academic honesty;
- requires that use of Generative AI in school network and computers be 2-d compliant;
- largely defers to classroom teachers on appropriate assignment of AI in classroom work;
- clarifies school district expectations for students in their use of AI, and allowing “...for multiple methods for students to demonstrate competence and understanding.”

AI – Policy Implications for School Districts Cont’d

The New York State Office of Information Technology Services (ITS) developed their own internal policy regarding AI. The following Policy on Acceptable Use of AI Technologies is not a model policy for school districts, but rather should be considered:

- establishes guidelines for acceptable use of AI by State Entities (SEs)
- applies to all technology systems that employ AI
- requires the use of AI to comply with applicable NYS and ITS policies and standards, and NY and federal law
- requires SEs to maintain awareness of how AI system uses personally identifiable, confidential, or sensitive information

AI – Policy Implications for School Districts Cont'd

- requires SEs to identify an Information Owner for each AI system and have human oversight
- requires AI systems to be fair and equitable
- encourages transparency
- requires SEs perform a Risk Assessment for each AI system, including a review of all security, privacy, legal, reputational, and competency risks
- suggests SEs adopt the National Institute of Standards and Technology (NIST) AI 100-1 Artificial Intelligence Risk Management Framework
- suggests SEs develop policies to govern data privacy, retention, accuracy, and disposal
- suggests SEs ensure adequate security controls, such as encryption

What to do with Existing Policy Manuals

- Should school districts employ a permission slip process?
- What about requests to monitor student use?
- Should the FERPA annual notice and 2-d Parent Bill of Rights be updated?

NYS Board of Regents

- At its March 2024 meeting, the NYS Board of Regents considered AI's potential impact on learning, privacy and other areas.

*See Sara Foss, Board of Regents discuss AI's impact on education, new york state school boards association (March 18, 2024),
https://www.nyssba.org/index.php?src=news&submenu=News&srctype=detail&category=On%20Board%20Online%20March%2018%202024&refno=4863&srctype=news_detail_2019*



Confidentiality

FERPA, PII and AI Search Prompts

- Generative AI programs such as ChatGPT progress by analyzing data sets to train the AI, mostly from the internet (which has its own problems).
- ChatGPT and other LLM's also utilize user input (i.e. prompt search terms) to train the program. If a prompt instruction contains personally identifiable information, that PII is now part of the data set that ChatGPT or similar program has access to.
- Some AI services can scan, identify and categorize student data.
- After identifying student data, lawyers should still monitor usage of the data, sharing patterns, and access logs to detect risks from inappropriate permissions, risky sharing, and unauthorized access.

AI and Education Law 2-d

- Education Law 2-d outlines requirements for protecting the personally identifiable information of students, and requires software companies to sign school districts' Parents' Bill of Rights.
 - Part 121 of the Regulations of the Commissioner of Education also address data privacy and security
- Unlikely the current AI models would comply with FERPA and Education Law 2-d or that the existing vendors could sign a parents' bill of rights.
- NYSED has stated because decisions about tools, curriculum, and programs are up to school districts, school districts must generally be mindful of privacy and security laws and regulations.
- Districts should consult with school attorneys on the risks associated with different AI models and service plans.

FERPA / Education Law-d Issues

- In 2021, Respondus, Inc., (a software company which provide “sophisticated digital/surveillance technologies” to high school and colleges), was sued in federal court for privacy injuries due to its allegedly amassing and storing personal student data without informed written consent, and by failure to comply with various requirements for biometric data, under Illinois law. *See Bridges v. Respondus, Inc.* [N.D. Ill.- 1:21-01-01785]
- This action could conceivably be in violation of 2-d if it occurred in New York.

A Note About FOIL

- FOIL allows public agencies to withhold certain agency records from disclosure if they fall within certain categories (i.e. records that if disclosed would constitute an unwarranted invasion of personal privacy).
- If AI is used in preparation of an agency record that contains information that would otherwise be exempt from disclosure, the information becomes part of the AI's database, to be relied upon by the AI in any future task.