NC STATE UNIVERSITY
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Friday Institute for Educational Innovation

Serving

and
Beyond

RESEARCH

POLICY

PRACTICE
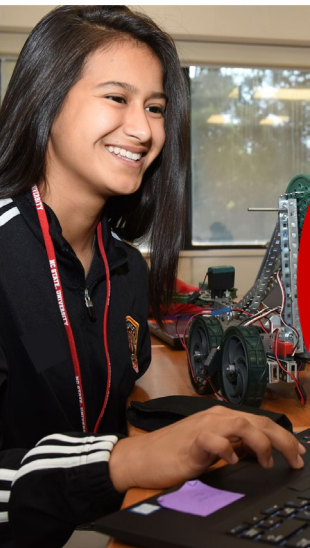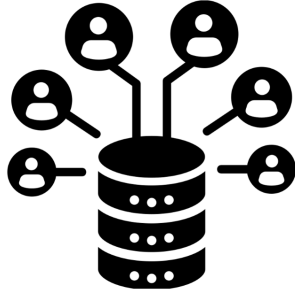
Our goal is to **empower educators**, offering hands-on guidance to **foster AI literacy** and **transform teaching and learning.**
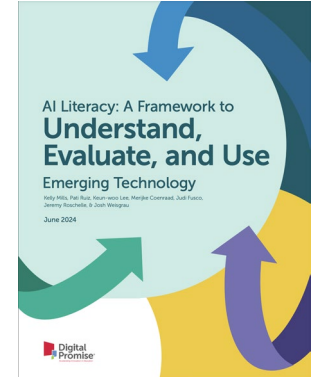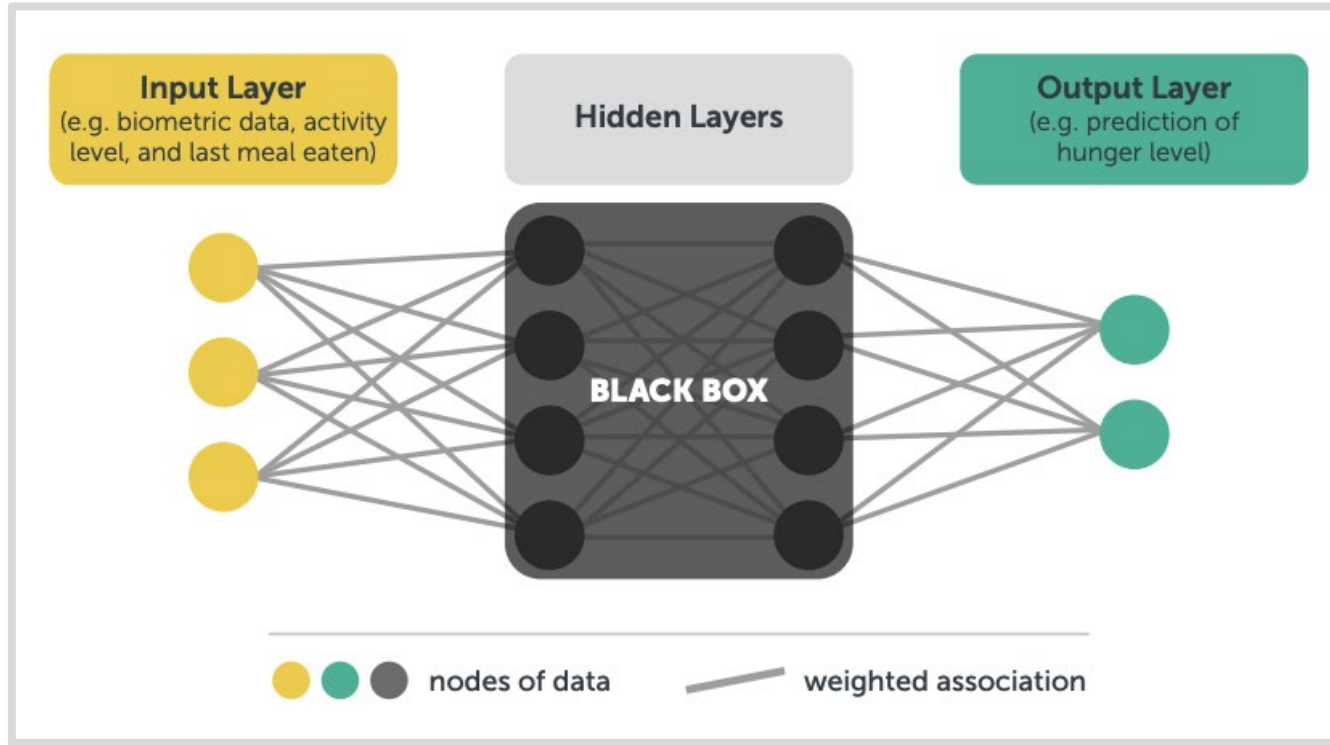
What does AI do?

Collects Data

Analyzes Data for Patterns

Makes Predictions

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AI with the Friday Institute

What does AI do?

Input Layer (e.g. biometric data, activity level, and last meal eaten)

Hidden Layers

Output Layer (e.g. prediction of hunger level)

BLACK BOX

nodes of data — weighted association

AI Literacy: A Framework to **Understand, Evaluate, and Use** Emerging Technology

Kelly Mills, Pati Ruiz, Keun-woo Lee, Merijke Coenraad, Judi Fusco, Jeremy Roschelle, & Josh Weisgrau
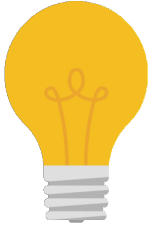
June 2024

Digital Promise

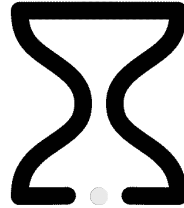From Digital Promise's *AI Literacy: A Framework to Understand, Evaluate, and Use Emerging Technology*

What's different about AI?

Builds on previous learning

Adapts based on input
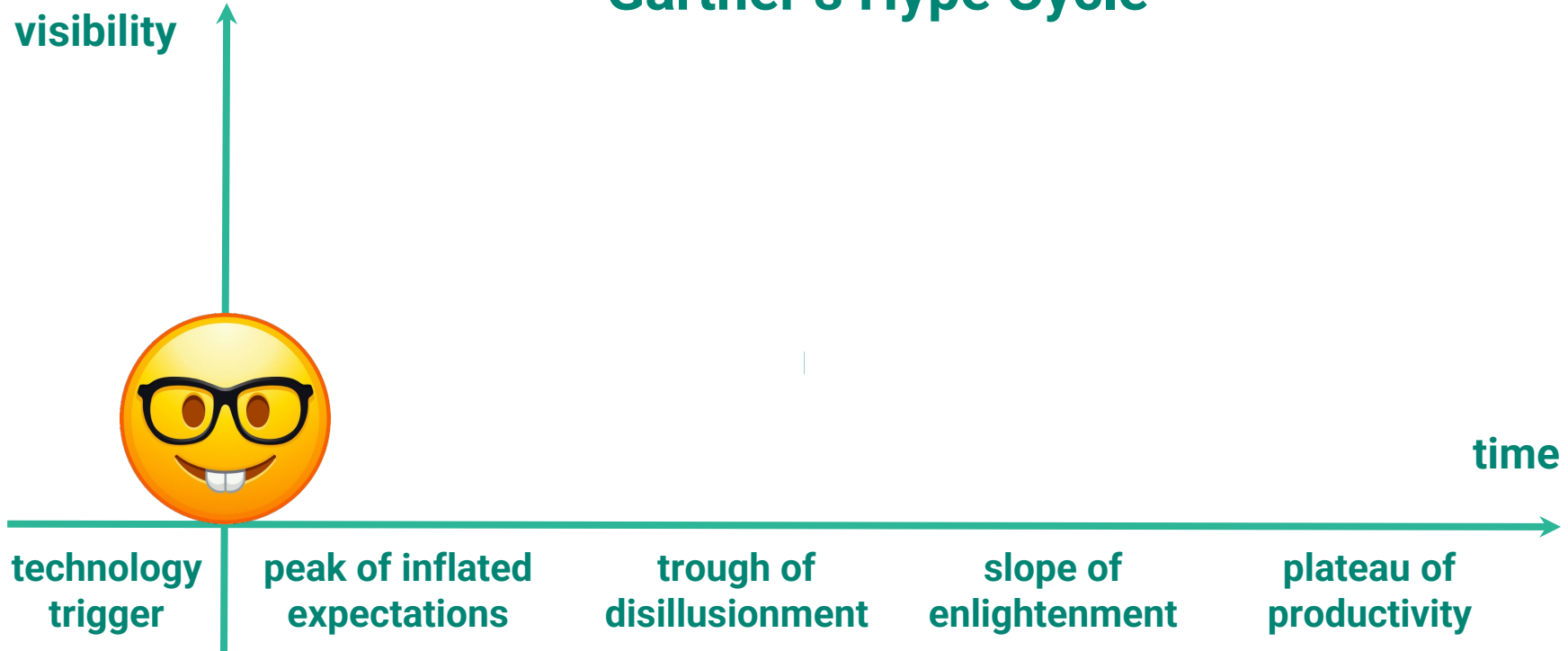
Creates novel content

LOADING

RUMOR: AI is trendy right now.

Gartner's Hype Cycle

visibility

time

technology trigger

peak of inflated expectations

trough of disillusionment

slope of enlightenment

plateau of productivity

RUMOR: AI will replace teachers.

South Austin private school using adaptive AI to optimize learning

By John Krinjak | Published October 16, 2023 | Artificial Intelligence | FOX 7 Austin

≡ **INDIA TODAY**   Magazine   Live TV   Search

News / Education Today / News / Kerala school launches 'Iris', India's first AI teacher

Kerala school launches 'Iris', India's first AI teacher

A Kerala school has introduced Iris, the first generative AI teacher in India. Equipped with an Intel processor it is set to revolutionise education.
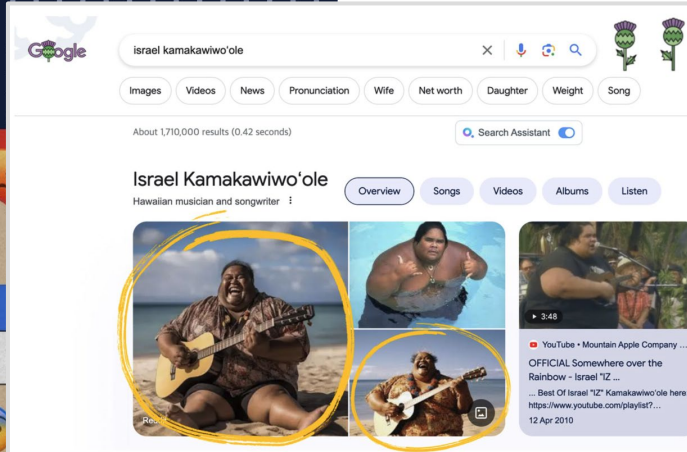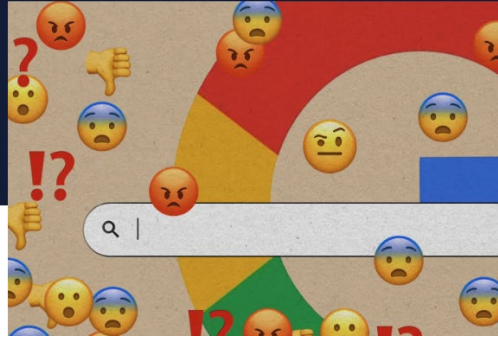
A Kerala school has introduced Iris, the first generative AI teacher in India. Equipped with an Intel processor it is set to revolutinise education.

RUMOR: AI can't be trusted.

Why Google's AI Overviews gets things wrong

Google's new AI search feature is a mess. So why is it telling us to eat rocks and gluey pizza, and can it be fixed?

By Rhiannon Williams

May 31, 2024

israel kamakawiwo'ole

Images Videos News Pronunciation Wife Net worth Daughter Weight Song

About 1,710,000 results (0.42 seconds)   Search Assistant

Israel Kamakawiwoʻole
Hawaiian musician and songwriter

Overview Songs Videos Albums Listen

3:48
YouTube • Mountain Apple Company ...
OFFICIAL Somewhere over the Rainbow - Israel "IZ" ...
... Best Of Israel "IZ" Kamakawiwo'ole here: https://www.youtube.com/playlist?...
12 Apr 2010

Fake AI images of Israel Kamakawiwo'ole laughing and playing the guitar lead Google's search results for the Hawaiian singer. *Source: Screengrab on Nov. 30, 2023*

Google's battle to discern real from fake threatens to blur the lines for billions of people seeking facts, and puts its own role as the world's organizer of information in uncertain territory.

World   Watch Audio Live TV Log In

Finance worker pays out $25 million after video call with deepfake 'chief financial officer'

By Heather Chen and Kathleen Magramo, CNN

2 minute read · Published 2:31 AM EST, Sun February 4, 2024

Authorities are increasingly concerned at the damaging potential posed by artificial intelligence technology. boonchai wedmakawand/Moment RF/Getty Images
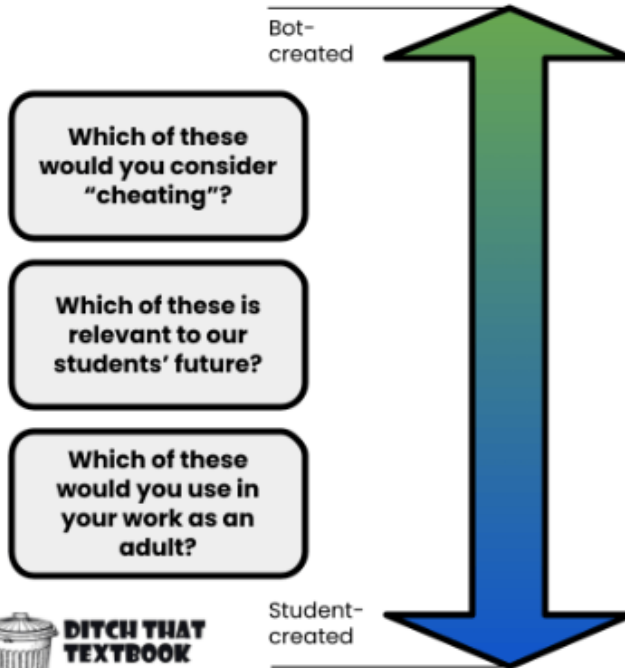
AI with the Friday Institute

RUMOR: Students are using AI.

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RUMOR: AI will increase student cheating.

It's time to rethink "plagiarism" and "cheating"

Bot-created

Which of these would you consider "cheating"?

Which of these is relevant to our students' future?

Which of these would you use in your work as an adult?

Student-created

DITCH THAT TEXTBOOK

Graphic by Matt Miller (@jmattmiller) DitchThatTextbook.com

RUMOR: You can detect AI.

GPT detectors are biased against non-native English writers

Weixin Liang[1*], **Mert Yuksekgonul**[1*], **Yining Mao**[2*], **Eric Wu**[2*], **and James Zou**[1,2,3,+]

[1]Department of Computer Science, Stanford University, Stanford, CA, USA
[2]Department of Electrical Engineering, Stanford University, Stanford, CA, USA
[3]Department of Biomedical Data Science, Stanford University, Stanford, CA, USA
[+]Correspondence should be addressed to: jamesz@stanford.edu
[*]these authors contributed equally to this work

ABSTRACT

The rapid adoption of generative language models has brought about substantial advancements in digital communication, while simultaneously raising concerns regarding the potential misuse of AI-generated content. Although numerous detection methods have been proposed to differentiate between AI and human-generated content, the fairness and robustness of these detectors remain underexplored. In this study, we evaluate the performance of several widely-used GPT detectors using writing samples from native and non-native English writers. Our findings reveal that these detectors consistently misclassify non-native English writing samples as AI-generated, whereas native writing samples are accurately identified. Furthermore, we demonstrate that simple prompting strategies can not only mitigate this bias but also effectively bypass GPT detectors, suggesting that GPT detectors may unintentionally penalize writers with constrained linguistic expressions. Our results call for a broader conversation about the ethical implications of deploying ChatGPT content detectors and caution against their use in evaluative or educational settings, particularly when they may inadvertently penalize or exclude non-native English speakers from the global discourse. The published version of this study can be accessed at: www.cell.com/patterns/fulltext/S2666-3899(23)00130-7

EducationWeek

ARTIFICIAL INTELLIGENCE

Parents Sue After School Disciplined Student for AI Use: Takeaways for Educators

By Lauraine Langreo — October 24, 2024 · 5 min read

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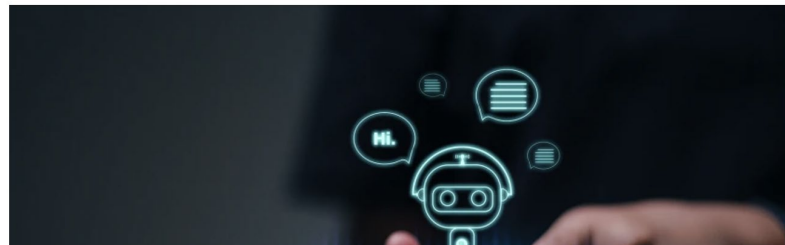
RUMOR: You can detect AI.

go.ncsu.edu/ai-nyt-faces

The New York Times

Test Yourself: Which Faces Were Made by A.I.?

By Stuart A. Thompson   Jan. 19, 2024

Tools powered by artificial intelligence can create lifelike images of people who do not exist.

See if you can identify which of these images are real people and which are A.I.-generated.

Was this made by A.I.?   10/10

Odd One Out

392 Points

Can you spot the odd one out? Guess the AI generated "imposters" hidden among the artworks on Google Arts & Culture.

Launch experiment

go.ncsu.edu/ai-odd-one-out

Stepping into AI
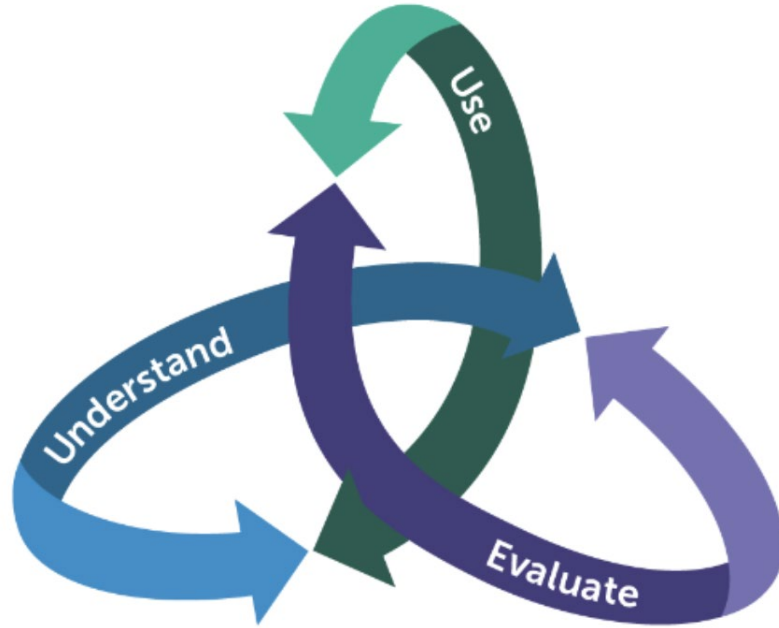
AI Literacy Framework — Digital Promise
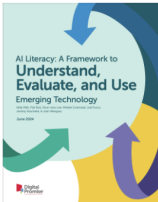
Stepping into AI

AI Literacy

From Digital Promise - AI Literacy:
A Framework to Understand, Evaluate, and Use Emerging Technology

AI Literacy: A Framework to Understand, Evaluate, and Use Emerging Technology

June 2024

Digital Promise

AI Literacy Framework

Digital Promise

Read more about the principles of AI Literacy: Understand, Evaluate, and Use

Learn more about the types of AI Use: Interacting, Creating, & Problem Solving

Report: June 2024

Blog Post: Feb 2024

P. 18 of the Report

Grow in the Fundamentals

Learn "What's a Chatbot?"
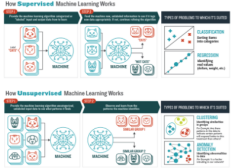
The person sitting next to you is a Chatbot!

1. Ask them something simple:
What's for dinner?
What are the weekend plans?

2. Keep prompting
Make it healthier.
Be more specific.

Inspired by Stacie Chana, TechEdMaven

Learn more about Chatbots in this YouTube video from Code.org.

Check out this infographic to learn how algorithms are the key to machine learning:

How Do Machines Learn?

How Supervised Machine Learning Works

How Unsupervised Machine Learning Works

Experiment with training an algorithm in this game: Most Likely Machine

go.ncsu.edu/ai-leadership-nc

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AI with the Friday Institute

Leading the Innovation

DIFFUSION OF INNOVATION MODEL

INNOVATORS 2.5%

EARLY ADOPTERS 13.5%

EARLY MAJORITY 34%

LATE MAJORITY 34%

LAGGARDS 16%

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AI with the Friday Institute

Leading the Innovation

Awareness · Interest · Evaluation · Trial · Adoption · Advocacy
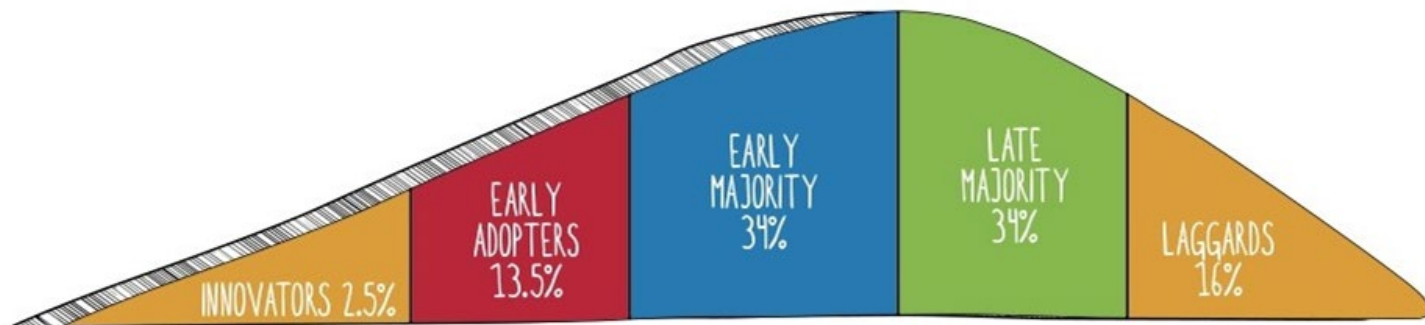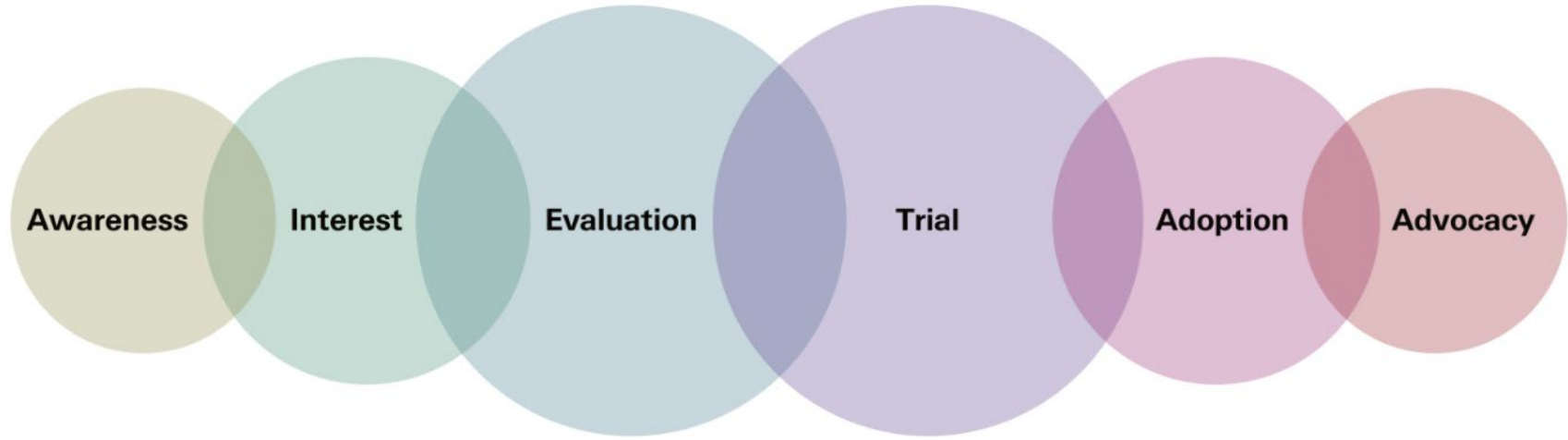
Adapted from Everett M. Rogers, 1962. Created by Emma Braaten at The Friday Institute for Educational Innovation at NC State University College of Education, 2023.

Caution: Ethical Concerns & Fears

⚠️ Machine Errors and Misinformation are REAL. Bad data in; bad data out.

⚠️ AI has proven BIAS against members of the BIPOC communities.

⚠️ Many tools are "Freemium" or offer limited "credits."

⚠️ Environmental impact is a growing concern.

😱 Intellectual property and copyright protections may be compromised.

😱 Your data may be "mined." Don't share confidential information!

😱 Detecting the difference between reality and AI can be hard… impossible.

😱 AI should "Do No Harm" - from incorrect plagiarism detection to weapon creation.

Student Engagement in the Age of AI
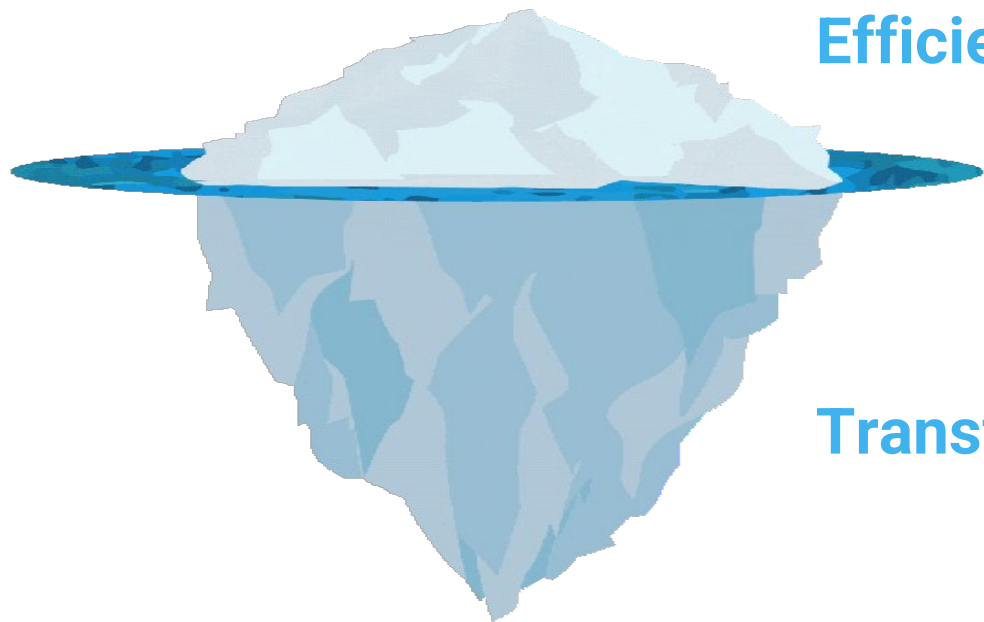
Efficiencies with AI

Transformations with AI

Examples of AI Use

Types of Use	Description	Examples
Interacting with AI	Engaging with adaptive technology that adjusts to data collected	• Scrolling through a feed on a social media platform with "recommended" posts. • Speaking to virtual assistants (Siri, Alexa, etc) • EdTech platform that personalizes learning (automate question difficulty, text-to-speech accommodation, etc.)
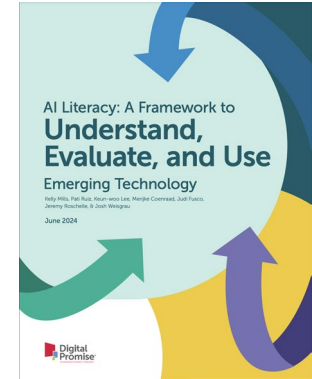
From Digital Promise's *AI Literacy: A Framework to Understand, Evaluate, and Use Emerging Technology*

Blueprint for an AI Bill of Rights

SAFE AND EFFECTIVE SYSTEMS

AI should be safe and effective.

ALGORITHMIC DISCRIMINATION PROTECTIONS

AI should not discriminate unjustly.

DATA PRIVACY

Data privacy and security should be protected.

NOTICE AND EXPLANATION

Users should know when AI is being used and know how it affects them.

HUMAN ALTERNATIVES, CONSIDERATION AND FALLBACK

Users can opt out and interact with a person.

From www.whitehouse.gov/ostp/ai-bill-of-rights

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Facebook while black: Users call it getting 'Zucked,' say talking about racism is censored as hate speech

Jessica Guynn
USA TODAY

VICE

MOTHERBOARD
TECH BY VICE

Amazon's AI Cameras Are Punishing Drivers for Mistakes They Didn't Make

AXIOS

Sep 3, 2024 - Technology

Teachers still can't trust AI text checkers

Megan Morrone

No. 0101001010110

Jessica Guynn. Facebook while black: Users call it getting 'Zucked,' say talking about racism is censored as hate speech. USA Today
Lauren Kaori Gurley. Amazon's AI Cameras Are Punishing Drivers for Mistakes They Didn't Make. Motherboard.
Axios: Teachers still can't trust AI text checkers.

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MIT Technology Review

The Markup

ARTIFICIAL INTELLIGENCE

LLMs become more covertly racist with human intervention

Researchers found that certain prejudices also worsened as models grew larger.

By James O'Donnell

March 11, 2024

Student Success May Be Racially Biased

Jeffrey Dastin. Amazon scraps secret AI recruiting tool that showed bias against women. Reuters.
The Markup: Major Universities Are Using Race as a "High Impact Predictor" of Student Success
AERA: Study: Algorithms Used by Universities to Predict Student Success May Be Racially Biased
MIT Technology Review: LLMs become more covertly racist with human intervention

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USA TODAY

IPHONE'S SATELLITE MODE — How it worked
SMARTPHONES AND KIDS — Is there a 'safe' optio...
INTERNET TOO EXPENSIVE? — How to lower your bill

U.S. Shopping Sports Entertainment Life Money [Tech] Travel Opinion

TECH   Pokemon Go   Add Topic +

It's not just a game. Your Pokemon Go player data is training AI map models.

Felecia Wellington Radel
USA TODAY

Published 5:09 a.m. ET Nov. 23, 2024 | Updated 9:04 a.m. ET Nov. 25, 2024

≡   ⚡ EdSurge   🔍

ARTIFICIAL INTELLIGENCE

An Education Chatbot Company Collapsed. Where Did the Student Data Go?

The sudden shelving of an ambitious AI chatbot at Los Angeles Unified School District highlights a key challenge for AI projects: corralling data.

By Jeffrey R. Young   Jul 15, 2024

USA Today: It's not just a game. Your Pokemon Go player data is training AI map models
EdSurge: An Education Chatbot Company Collapsed. Where Did the Student Data Go?

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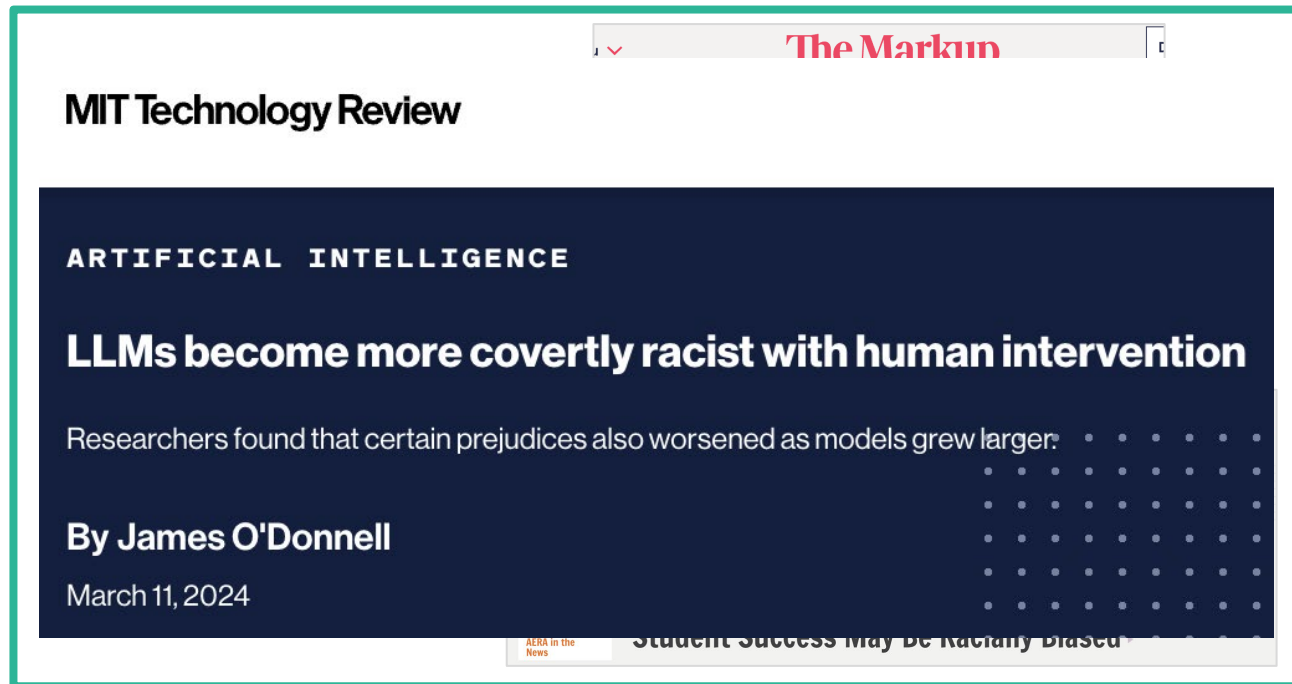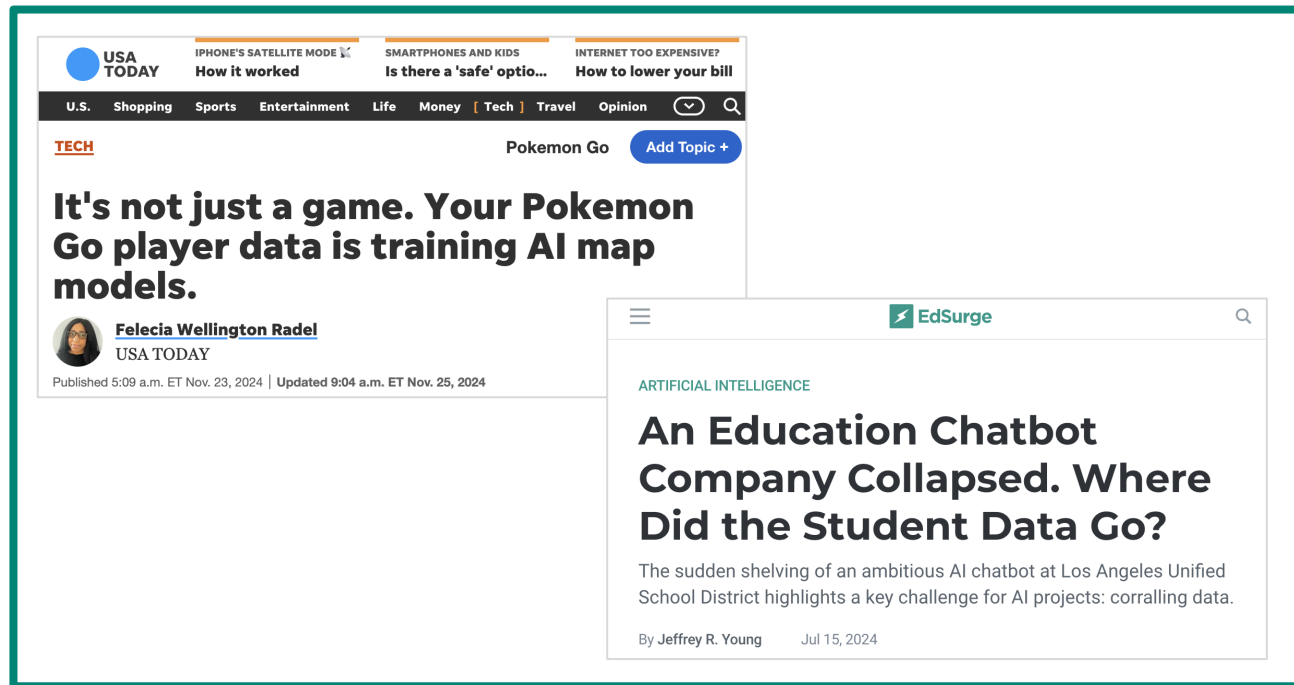*Users should know when AI is being used and know how it affects them.*

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Home > News > Digital Life > Social Media

LinkedIn Is Quietly Training AI on Your Data—Here's How to Stop It

Microsoft-owned LinkedIn recently began training AI models on your data without your express consent. Days later, LinkedIn stops scraping UK users after regulators sound the alarm.

By Kate Irwin

Updated September 20, 2024

WIRED | SECURITY | POLITICS | MORE ∨ | SUBSCRIBE

KATE KNIBBS   BUSINESS   NOV 26, 2024 2:00 PM

Yes, That Viral LinkedIn Post You Read Was Probably AI-Generated

A new analysis estimates that over half of longer English-language posts on LinkedIn are AI-generated, indicating the platform's embrace of AI tools has been a success.

PCMag: LinkedIn Is Quietly Training AI on Your Data—Here's How to Stop It
Wired: Yes, That Viral LinkedIn Post You Read Was Probably AI-Generated

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CURRENT EVENTS CONVERSATION

What Students Are Saying About Teachers Using A.I. to Grade

Teenagers and educators weigh in on a recent question from The Ethicist.

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Evaluation & Trial

Navigating the

M Monitor Data Privacy

A Assess for Accuracy

Z Zero-in on Bias

E Evaluate Value

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2024 NETP & AI Alignment

From https://tech.ed.gov/netp
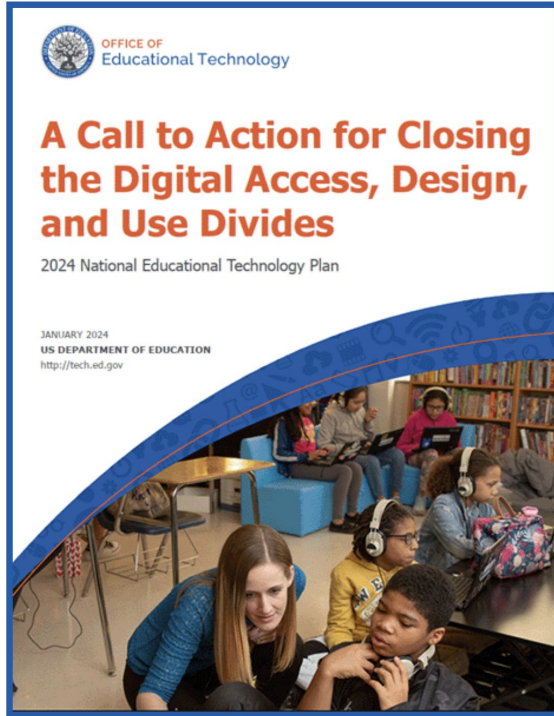
→ **Digital USE Divide**

→ **Digital DESIGN Divide**

→ **Digital ACCESS Divide**

Where do we go from here?

With Students...
- Prioritize PROCESS over PRODUCT

- Guide ACCESS and ACCOUNTABILITY

- Reframe and revisit DIGITAL WELLNESS

With Educators...
- Examine & Discuss POLICY and PRACTICE

- Identify VALUES and NEEDS

- Build in EFFICIENCIES and TRAINING

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