AI Goes to College

Jeff Knight
Attorney

Jessica Galanos
Attorney

Kylie Stryffeler
Attorney

Bricker Graydon

Artificial Intelligence (AI)

“At its simplest form, artificial intelligence is a field, which combines computer science and robust datasets, to enable problem-solving.”

IBM, *What is Artificial Intelligence*

What is Artificial Intelligence?

machines based on AI "are potentially capable of imitating or even exceeding human cognitive capacities, including sensing, language interaction, reasoning and analysis, problem solving, and even creativity."

(UNESCO World Commission on the Ethics of Scientific Knowledge and Technology (2019))

- No single, fixed definition of AI.
- AI is best understood based on its capabilities.
- Weak AI v. Strong AI
- Machine learning & Deep learning
- Generative AI

What is Generative AI?

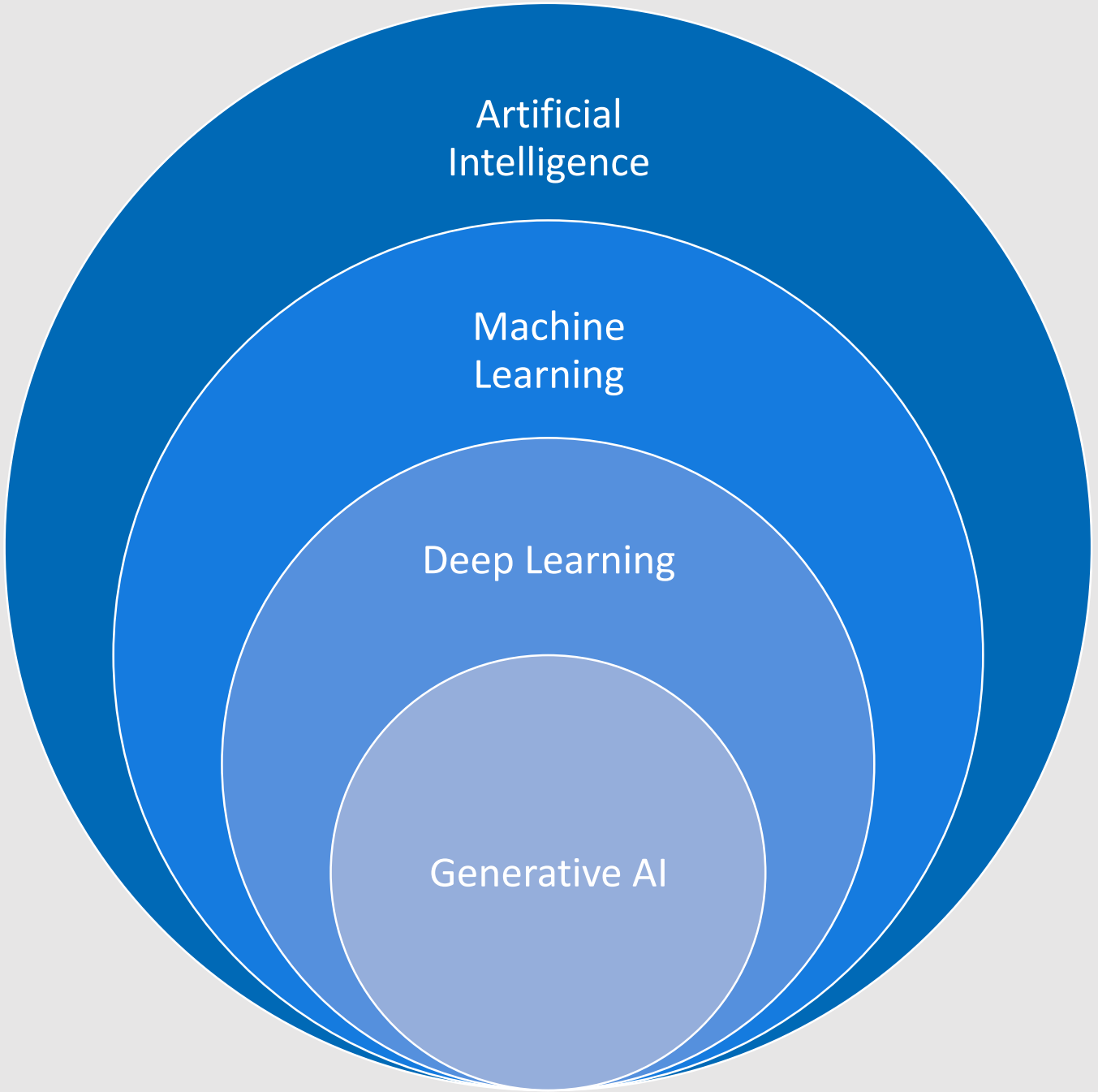
- Deep learning models that can take raw data and "learn" to generate statistically probable outputs when prompted.
- Use cases include: chat bots; letter, resume (and homework) drafting; photorealistic art; deepfakes; designing products.
- Everything starts with a prompt.
- Algorithms review the prompt and produce content.
- Content can then be customized and re-generated.

What is a “prompt” for Generative AI?

- Generative AI tools are powerful but they all require an input from the user.
- Quality + detail = relevance
- Prompt engineering has significant impact on output (more to come on this)

“Generative AI models can crank out anything from poetry and prose to images and code at your command. But to coax your desired output from these AI tools, you need to craft the right input — AKA, the prompt.”

Microsoft, *The art of the prompt: How to get the best out of generative AI*

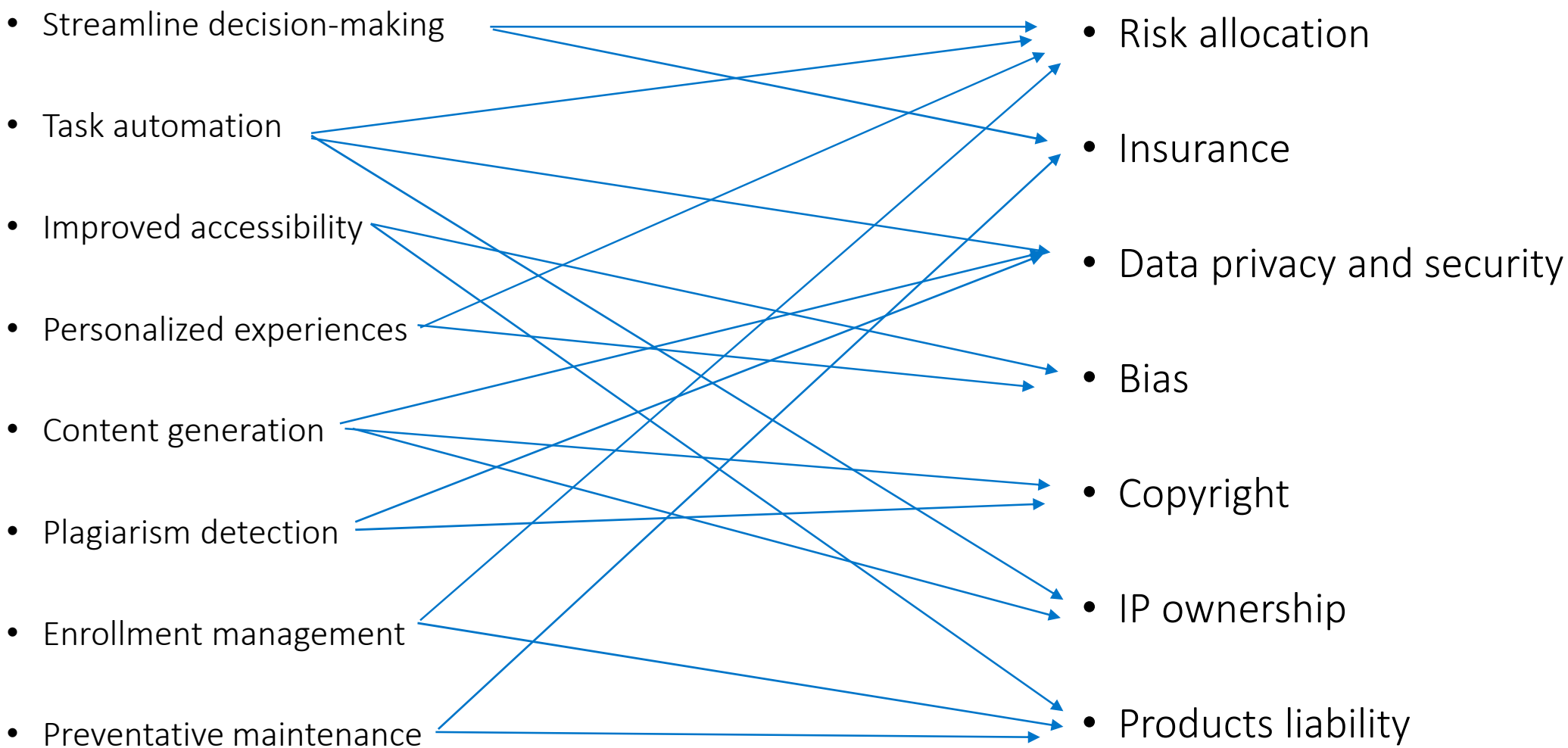

Artificial Intelligence
Machine Learning
Deep Learning
Generative AI

Intersection of AI and Higher Education

"Artificial intelligence is emerging as one of the most powerful agents of change in higher education, presenting the sector with unprecedented academic, ethical and legal challenges."

M'hammed Abdous, Inside Higher Ed, *How AI Is Shaping the Future of Higher Ed*

Where AI and Higher Education Intersect

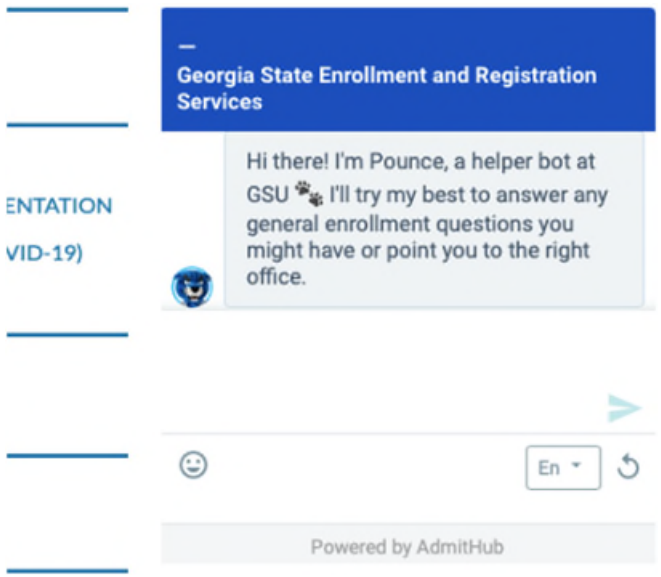


A Framework for Navigating the Intersection

- *What problem am I trying to solve?*
- *What data is necessary to solve this problem and do I have permission to use it?*
- *What are the benefits of using AI to solve this problem?*
- *What are the risks of using AI to solve this problem?*
- *Who can validate the outputs and check for bias and fairness?*
- *Are all stakeholders aware of the use of AI to solve this problem?*

AI and Higher Education: Use Case No. 1

- Georgia State University "Summer Melt" & *Pounce*
  - ~ 18% of accepted students committed but never attended on Day 1.
  - University and vendor work to identify the most common causes of "melt."
  - University fed answers and information into a Chatbot (Pounce) that would be available 24/7 via text.
  - First year deployed, Pounce delivered 200,000 answers with an average response time of 7 seconds.
  - "Melt" reduced by approximately 300 seats.



Use Case No. 1: Deeper Dive

- A chatbot is an AI software that can simulate a conversation (or a chat) with a user in natural language through messaging applications, websites, mobile apps or through the telephone.

- Older versions were pre-programmed with a limited set of inquiries, like FAQs. Now they're closer to conversational.

- *What goes into the training? What oversight is there? What data is being generated and to what end? What impressions are being drawn?*

- *What problem am I trying to solve?*
- *What data is necessary to solve this problem and do I have permission to use it?*
- *What are the benefits of using AI to solve this problem?*
- *What are the risks of using AI to solve this problem?*
- *Who can validate the outputs and check for bias and fairness?*
- *Are all stakeholders aware of the use of AI to solve this problem?*

AI and Higher Education: Use Case No. 2

- Georgia Tech and “Jill Watson”
  - 300-student lecture → 10,000 postings in the discussion forum
  - Professor created “Jill Watson” the robotic TA.
  - Students not informed that TA was automated until later in the semester.
  - Used machine learning + natural language processing.
  - Trained on questions submitted by previous students.

Jill was quite precocious almost from the beginning. While still a baby, she joined the teaching staff of the Spring 2016 KBAI class. As a virtual teaching assistant, she answered questions in the online discussion forum for online KBAI class. Jill answered only routine, frequently answered questions on the forum, but she did so with higher than ninety percent accuracy and with an authenticity that the students in the class did not figure out that Jill was actually an AI agent. When we shared the identity of Jill with the students, the students were thrilled by the experiment!

Use Case No. 2: Deeper Dive

- Is FERPA equipped to handle AI?
- Where did that student data go?
- The ethical considerations of disclosure and non-disclosure.
- The role of IRB.

- *What problem am I trying to solve?*
- *What data is necessary to solve this problem and do I have permission to use it?*
- *What are the benefits of using AI to solve this problem?*
- *What are the risks of using AI to solve this problem?*
- *Who can validate the outputs and check for bias and fairness?*
- *Are all stakeholders aware of the use of AI to solve this problem?*

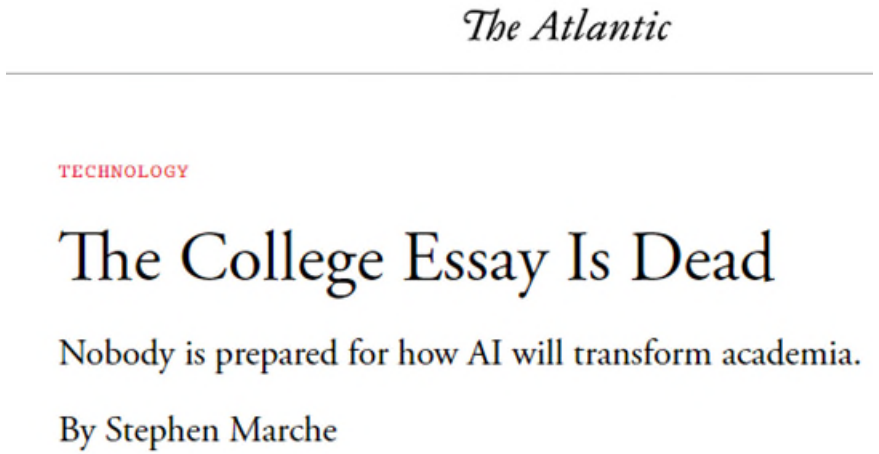
AI and Higher Education: Deeper Dive

- What if, instead of providing answers to straightforward questions, an AI-powered tool assisted with higher-stakes decisions?
  - Predicting how well students might do if admitted
  - Scoring applicants based on a likelihood of enrolling
  - Determining financial aid
  - Suggesting a course of study
  - Grading

- *What frameworks need to be in place to address these questions?*

AI and Academic Integrity

- Considerably early to list the challenges that generative AI pose for academic integrity.
- Mitigation ranges from banning/blocking to counter-measures to adaptation.
- AI Plagiarism Detection is in its infancy and is subject to the same limitations that other AI tools have.
- Student surveillance tools can be fraught in their own right.
- Creativity seems to be carrying the day.
- Institutions must stay proactive and continually update their strategies to counter emerging forms of misconduct.



The Atlantic

TECHNOLOGY

The College Essay Is Dead

Nobody is prepared for how AI will transform academia.

By Stephen Marche

RollingStone

GOT A TIP?

BOT BUST

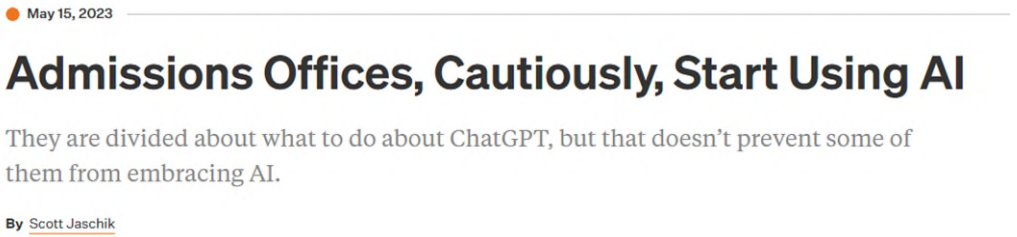
Professor Flunks All His Students After ChatGPT Falsely Claims It Wrote Their Papers

Texas A&M University–Commerce seniors who have already graduated were denied their diplomas because of an instructor who incorrectly used AI software to detect cheating

BY MILES KLEE

AI and Bias

- (*Remember the importance of prompt engineering?*)
- Generative AI systems can be susceptible to biases present in the data they are trained on, which may result in the generation of biased or discriminatory content.
- Impacts will be felt systemically across campus, beginning with admissions, financial aid, student support services.
- All AI use must be tested, vetted, disclosed, and audited to ensure fairness, inclusivity, and equal opportunities for all students and stakeholders.
- AI use must be preceded by sound policy revision and training.

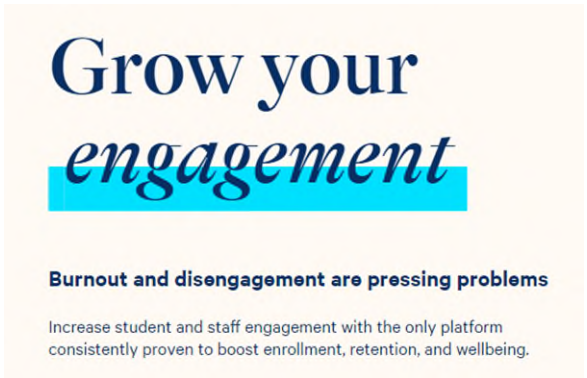


May 15, 2023

Admissions Offices, Cautiously, Start Using AI

They are divided about what to do about ChatGPT, but that doesn't prevent some of them from embracing AI.

By Scott Jaschik



AI and Accessibility

- Generative AI has the potential to make learning materials more accessible.
- AI can increase efficiencies with how a University connects with its students, but it can also exacerbate barriers.
- Consider how disability services may be impacted with the proliferation of these tools. (Remember the framework)
- Faculty would be well-served to review their course/outcomes materials as AI works its way into the accommodations process.

Issue Spotting: Bias and Accessibility

- Recruitment and screening are easy tasks to automate but does doing so reduce bias, or introduce a potential new bias?

- AI tools are only as good as their datasets. What decisions are being made that you don't see? How does that affect a defense under the existing burden-shifting analysis?

- Monitoring process and results of AI tools is not enough. Need visibility into the algorithms to understand the process and results.

AI and Data Privacy/Security

- FERPA was enacted in 1974.
- AI, and EdTech utilizing AI, highlight the need for sound data privacy and security practices.
- Information shared with Generative AI tools (almost certainly) not be recovered.
- Look to already existing privacy frameworks (e.g., GDPR, CCPA).
- Data minimization is risk minimization.

"Children should not have to needlessly hand over their data and forfeit their privacy in order to do their schoolwork or participate in remote learning, especially given the wide and increasing adoption of ed tech tools. Going forward, the Commission will closely scrutinize the providers of these services and will not hesitate to act where providers fail to meet their legal obligations with respect to children's privacy."

Policy Statement of the Federal Trade Commission on Education Technology and the Children's Online Privacy Protection Act

AI and Intellectual Property

- Data used to train Generative AI models may include copyrighted data.
- Output can mirror copyrighted work and the end user may not be aware.
- What happens in Generative AI, stays in Generative AI.
- Who owns the prompt? What about the output?

"We've filed a lawsuit challenging GitHub Copilot, an AI product that relies on unprecedented open-source software piracy.
Because AI needs to be fair & ethical for everyone."

https://githubcopilotlitigation.com/

This week Getty Images commenced legal proceedings . . . against Stability AI . . . It is Getty Images' position that Stability AI unlawfully copied and processed millions of images protected by copyright and the associated metadata owned or represented by Getty Images absent a license to benefit Stability AI's commercial interests and to the detriment of the content creators.

https://newsroom.gettyimages.com/en/getty-images/getty-images-statement

Preparing for Tomorrow

"As this technology advances, we understand that people are anxious about how it could change the way we live. We are too."

Testimony of OpenAI CEO Sam Altman before the Senate Judiciary Committee's subcommittee on privacy, technology and the law, May 16, 2023

"IBM urges Congress to adopt a "precision regulation" approach to artificial intelligence. This means establishing rules to govern the deployment of AI in specific use-cases, not regulating the technology itself."

Testimony of Christina Montgomery, Chief Privacy and Trust Officer, IBM, before the Senate Judiciary Committee's subcommittee on privacy, technology and the law, May 16, 2023

Future of AI (not just on campus)

- Regulation is coming, but from where?
  - Congress looking to establish regulatory “guardrails”
  - White House issued its blueprint for an AI Bill of Rights
  - Department of Commerce (NTIA) evaluating certifications and audits of AI systems
  - FTC has already claimed jurisdiction over Large Language Models
  - More then a dozen states have introduced AI-related legislation

- EU is already racing toward risk-based regulation.

Adapting for AI

- Embrace potential, not fear.
- Understand the technology.
- Assemble a broad but focused team that will drive toward a framework that matches your ethic of care.
- Find the connectivity between AI use and existing policies and procedures (e.g., honor codes, acceptable use, faculty handbooks)
- Mitigate risk by auditing existing systems.
- Transparency is key!

Jeff Knight

jknight@brickergraydon.com

614.227.2346

www.brickergraydon.com

Bricker Graydon