Discussion Prompts

Round 1: Music

Defying Gravity by Cynthia Erivo and Arriana Grande

Elphaba, why couldn't you have stayed calm for once?
Instead of flying off the handle!
I hope you're happy
I hope you're happy now
I hope you're happy how you've hurt your cause forever
I hope you think you're clever
I hope you're happy
I hope you're happy too
I hope you're proud how you would grovel in submission
To feed your own ambition
So though I can't imagine how
I hope you're happy right now
Elphie, listen to me, just say you're sorry
You can still be with the wizard
What you've worked and waited for
You can have all you ever wanted (I know)
But I don't want it
No, I can't want it anymore
Something has changed within me
Something is not the same
I'm through with playing by the rules of someone else's game
Too late for second-guessing
Too late to go back to sleep
It's time to trust my instincts, close my eyes and leap
It's time to try defying gravity
I think I'll try defying gravity
And you can't pull me down
Can't I make you understand
You're having delusions of grandeur?
I'm through accepting limits
'Cause someone says they're so
Some things I cannot change, but 'til I try, I'll never know
Too long I've been afraid of
Losing love, I guess I've lost
Well, if that's love, it comes at much too high a cost
I'd sooner buy defying gravity
Kiss me goodbye, I'm defying gravity
And you can't pull me down

Glinda, come with me
Think of what we could do, together
Unlimited
Together, we're unlimited
Together, we'll be the greatest team there's ever been
Glinda, dreams the way we planned 'em
If we work in tandem
There's no fight we cannot win
Just you and I, defying gravity
With you and I defying gravity
They'll never bring us down
Well, are you coming?
I hope you're happy
Now that you're choosing this (you too)
I hope it brings you bliss
I really hope you get it
And you don't live to regret it
I hope you're happy in the end
I hope you're happy, my friend
So if you care to find me
Look to the western sky
As someone told me lately, "Everyone deserves the chance to fly"
And if I'm flying solo
At least I'm flying free
To those who ground me, take a message back from me
Tell them how I am defying gravity
I'm flying high, defying gravity
And soon, I'll match them in renown
And nobody in all of Oz
No wizard that there is or was
Is ever gonna bring me down
I hope you're happy (look at her, she's wicked, get her)
Bring me down! (No one mourns the wicked, so we've got to bring her)
Oh! (Down)

Round 2 Literature

The Road Not Taken

by Robert Frost

Two roads diverged in a yellow wood,
And sorry I could not travel both
And be one traveler, long I stood
And looked down one as far as I could
To where it bent in the undergrowth;

Then took the other, as just as fair
And having perhaps the better claim,
Because it was grassy and wanted wear;
Though as for that, the passing there
Had worn them really about the same,

And both that morning equally lay
In leaves no step had trodden black
Oh, I kept the first for another day!
Yet knowing how way leads on to way,
I doubted if I should ever come back.

I shall be telling this with a sigh
Somewhere ages and ages hence:
Two roads diverged in a wood, and I,
I took the one less traveled by,
And that has made all the difference.

Round 3 Current Events
https://www.reuters.com/business/finance/climate-change-shows-claws-with-rising-costs-disasters-munich-re-says-2025-01-09/

Climate change shows 'claws' with rising costs for disasters, Munich Re says

By Alexander Hübner and Tom Sims

January 9, 202511:08 AM ESTUpdated 2 hours ago

Brenna Peake, 25-year old volunteer from Asheville, reacts to what she said was exhaustion as she helps clean up businesses and other properties in the aftermath of Hurricane Helene, in Marshall, North Carolina, U.S. October 10, 2024. REUTERS/Jonathan Drake/ File Photo Purchase Licensing Rights

MUNICH, Jan 9 (Reuters) - Hurricanes, storms, floods and other natural disasters caused an estimated $140 billion in insured losses in 2024, up from 2023 and one of the costliest years on record, Munich Re said on Thursday.

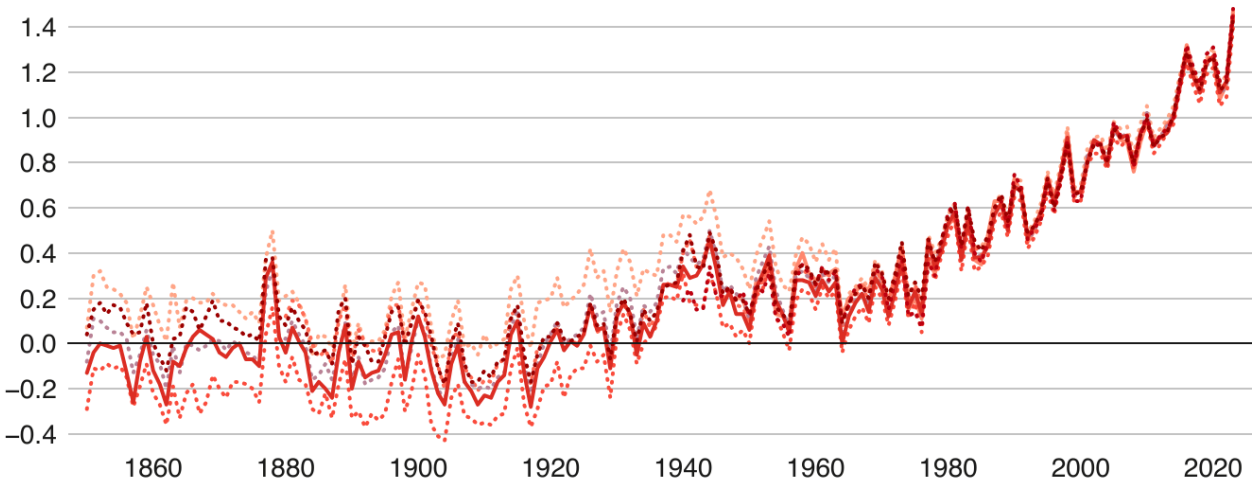
The year's tally of losses from natural catastrophes covered by insurance compares with $106 billion recorded in 2023 and is well above long-term averages. It is also higher than a similar forecast by Swiss Re, published in December.

Munich Re, the world's largest insurer, said the development shows that "climate change is showing its claws" as global temperatures continue to rise, contributing to more frequent and extreme weather events.

Warming world

Global temperatures have risen more than one degree since the period of 1850-1900, based on an array of measures. In Europe, the increase has been even greater.

Rise in global temperatures in Celcius



Temperatures are based on multiple datasets.

• Source: European Environment Agency | Reuters, Jan. 8, 2025 | By Tom Sims

A graphic showing temperatures over time.

"One record-breaking high after another – the consequences are devastating. The destructive forces of climate change are becoming increasingly evident," said Thomas Blunck, a member of Munich Re's management board.

The 2024 insured losses were the third most expensive year since 1980, Munich Re said.

Total losses from natural catastrophes, including those not covered by insurance, were $320 billion in 2024. That is up from $268 billion in 2023 and above longer-term averages.

The costliest disasters were hurricanes Helene and Milton, which hit the United States hard.

Though focused on 2024, the report comes as tens of thousands of people evacuate their homes as wildfire rips through upscale areas of Los Angeles. "No one is really safe from the consequences of climate change," said Tobias Grimm, Munich Re's chief climate scientist.

Round 4 Science and Technology
https://www.ed.gov/sites/ed/files/documents/ai-report/ai-report.pdf

Building Ethical, Equitable Policies Together

In this report, we aim to build on the listening sessions the Department hosted to engage and inform all constituents involved in making educational decisions so they can prepare for and make better decisions about the role of AI in teaching and learning. AI is a complex and broad topic, and we are not able to cover everything nor resolve issues that still require more constituent engagement. This report is intended to be a starting point.

The opportunities and issues of AI in education are equally important in K-12, higher education, and workforce learning. Due to scope limitations, the examples in this report will focus on K-12 education. The implications are similar at all levels of education, and the Department intends further activities in 2023 to engage constituents beyond K-12 schools.

Guiding Questions

Understanding that AI increases automation and allows machines to do some tasks that only people did in the past leads us to a pair of bold, overarching questions:

1. What is our collective vision of a desirable and achievable educational system that leverages automation to advance learning while protecting and centering human agency?
2. How and on what timeline will we be ready with necessary guidelines and guardrails, as well as convincing evidence of positive impacts, so that constituents can ethically and equitably implement this vision widely?

In the Learning, Teaching, and Assessment sections of this report, we elaborate on elements of an educational vision grounded in what today's learners, teachers, and educational systems need, and we describe key insights and next steps required. Below, we articulate four key foundations for framing these themes. These foundations arise from what we know about the effective use of educational technology to improve opportunity, equity, and outcomes for students and also relate to the new Blueprint.

Foundation 1: Center People (Parents, Educators, and Students)

Education-focused AI policies at the federal, state, and district levels will be needed to guide and empower local and individual decisions about which technologies to adopt and use in schools and classrooms. Consider what is happening in everyday lives. Many of us use AI-enabled products because they are often better and more convenient. For example, few people want to use paper maps anymore; people find that technology helps us plan the best route to a destination more efficiently and conveniently. And yet, people often do not realize how much privacy they are giving up when they accept AI-enabled systems into their lives. AI will bring privacy and other risks that are hard to address only via individual decision making; additional protections will be needed.

There should be clear limits on the ability to collect, use, transfer, and maintain our personal data, including limits on targeted advertising. These limits should put the burden on platforms to minimize how much information they collect, rather than burdening Americans with reading fine print.[8]

As protections are developed, we recommend that policies center people, not machines. To this end, a first recommendation in this document (in the next section) is an emphasis on **AI with humans in the loop**. Teachers, learners, and others need to retain their agency to decide what patterns mean and to choose courses of action. The idea of humans in the loop builds on the concept of "Human Alternatives, Consideration, and Fallback" in the Blueprint and ethical concepts used more broadly in evaluating AI, such as preserving human dignity. A top policy priority must be establishing human in the loop as a requirement in educational applications, despite contrary pressures to use AI as an alternative to human decision making. Policies should not hinder innovation and improvement, nor should they be burdensome to implement. Society needs an education-focused AI policy that protects civil rights and promotes democratic values in the building, deployment, and governance of automated systems to be used across the many decentralized levels of the American educational system.

Foundation 2: Advance Equity

"AI brings educational technology to an inflection point. We can either increase disparities or shrink them, depending on what we do now."
—Dr. Russell Shilling

A recent Executive Order[9] issued by President Biden sought to strengthen the connection among racial equity, education and AI, stating that "members of underserved communities—many of whom have endured generations of discrimination and disinvestment—still confront significant barriers to realizing the full promise of our great Nation, and the Federal Government has a responsibility to remove these barriers" and that the Federal Government shall both "pursue educational equity so that our Nation's schools put every student on a path to success" and also "root out bias in the design and use of new technologies, such as artificial intelligence." A specific vision of equity, such as described in the Department's recent report, *Advancing Digital Equity for All*[10] is essential to policy discussion about AI in education. This report defines digital equity as

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[8] The White House (September 8, 2022). Readout of White House listening session on tech platform accountability. https://www.whitehouse.gov/briefing-room/statements-releases/2022/09/08/readout-of-white-house-listening-session-on-tech-platform-accountability/

[9] The White House (February 17, 2023). Executive order on further advancing racial equity and support for underserved communities through the federal government. https://www.whitehouse.gov/briefing-room/presidential-actions/2023/02/16/executive-order-on-further-advancing-racial-equity

[10] U.S. Department of Education, Office of Educational Technology (2022). Advancing digital equity for all: Community-based recommendations for developing effective digital equity plans to close the digital divide and enable technology-empowered learning. US Department of Education.

"the condition in which individuals and communities have the information technology capacity that is needed for full participation in the society and economy of the United States."

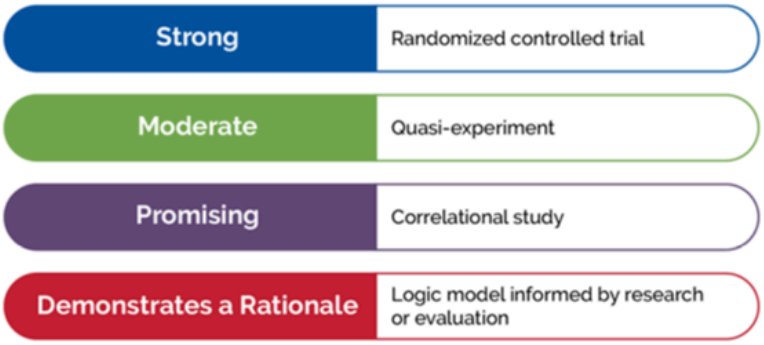
Issues related to racial equity and unfair bias were at the heart of every listening session we held. In particular, we heard a conversation that was increasingly attuned to issues of data quality and the consequences of using poor or inappropriate data in AI systems for education. Datasets are used to develop AI, and when they are non-representative or contain undesired associations or patterns, resulting AI models may act unfairly in how they detect patterns or automate decisions. Systematic, unwanted unfairness in how a computer detects patterns or automates decisions is called "algorithmic bias." Algorithmic bias could diminish equity at scale with unintended discrimination. As this document discussed in the *Formative Assessment* section, this is not a new conversation. For decades, constituents have rightly probed whether assessments are unbiased and fair. Just as with assessments, whether an AI model exhibits algorithmic bias or is judged to be fair and trustworthy is critical as local school leaders make adoption decisions about using AI to achieve their equity goals.

We highlight the concept of "algorithmic discrimination" in the Blueprint. Bias is intrinsic to how AI algorithms are developed using historical data, and it can be difficult to anticipate all impacts of biased data and algorithms during system design. The Department holds that biases in AI algorithms must be addressed when they introduce or sustain unjust discriminatory practices in education. For example, in postsecondary education, algorithms that make enrollment decisions, identify students for early intervention, or flag possible student cheating on exams must be interrogated for evidence of unfair discriminatory bias—and not only when systems are designed, but also later, as systems become widely used.

Foundation 3: Ensure Safety, Ethics, and Effectiveness

A central safety argument in the Department's policies is the need for data privacy and security in the systems used by teachers, students, and others in educational institutions. The development and deployment of AI requires access to detailed data. This data goes beyond conventional student records (roster and gradebook information) to detailed information about what students do as they learn with technology and what teachers do as they use technology to teach. AI's dependence on data requires renewed and strengthened attention to data privacy, security, and governance (as also indicated in the Blueprint). As AI models are not generally developed in consideration of educational usage or student privacy, the educational application of these models may not be aligned with the educational institution's efforts to comply with federal student privacy laws, such as FERPA, or state privacy laws.

Figure 2: The Elementary and Secondary Education Act defines four levels of evidence.



Further, educational leaders are committed to basing their decisions about the adoption of educational technology on evidence of effectiveness—a central foundation of the Department's policy. For example, the requirement to base decisions on evidence also arises in the Elementary and Secondary Education Act (ESEA), as amended, which introduced four tiers of evidence (see Figure 2). Our nation's research agencies, including the Institute of Education Sciences, are essential to producing the needed evidence. The Blueprint calls for evidence of effectiveness, but the education sector is ahead of that game: we need to insist that AI-enhanced edtech rises to meet ESEA standards as well.

Foundation 4: Promote Transparency

The central role of complex AI models in a technology's detection of patterns and implementation of automation is an important way in which AI-enabled applications, products, and services will be different from conventional edtech. The Blueprint introduces the need for transparency about AI models in terms of disclosure ("notice") and explanation. In education, decision makers will need more than notice—they will need to understand how AI models work in a range of general educational use cases, so they can better anticipate limitations, problems, and risks.

AI models in edtech will be approximations of reality and, thus, constituents can always ask these questions: **How precise are the AI models? Do they accurately capture what is most important? How well do the recommendations made by an AI model fit educational goals? What are the broader implications of using AI models at scale in educational processes?**

Building on what was heard from constituents, the sections of this report develop the theme of evaluating the quality of AI systems and tools using multiple dimensions as follows:

- **About AI**: AI systems and tools must respect data privacy and security. Humans must be in the loop.
- **Learning**: AI systems and tools must align to our collective vision for high-quality learning, including equity.
- **Teaching**: AI systems and tools must be inspectable, explainable, and provide human alternatives to AI-based suggestions; educators will need support to exercise professional judgment and override AI models, when necessary.

- **Formative Assessment**: AI systems and tools must minimize bias, promote fairness, and avoid additional testing time and burden for students and teachers.
- **Research and Development**: AI systems and tools must account for the context of teaching and learning and must work well in educational practice, given variability in students, teachers, and settings.
- **Recommendations**: Use of AI systems and tools must be safe and effective for students. They must include algorithmic discrimination protections, protect data privacy, provide notice and explanation, and provide a recourse to humans when problems arise. The people most affected by the use of AI in education must be part of the development of the AI model, system, or tool, even if this slows the pace of adoption.

We return to the idea that these considerations fit together in a comprehensive perspective on the quality of AI models in the *Recommendations* section.

Overview of Document

We begin in the next section by elaborating a definition of AI, followed by addressing learning, teaching, assessment, and research and development. Organizing key insights by these topics keeps us focused on exploring implications for improving educational opportunity and outcomes for students throughout the report.

Within these topics, three important themes are explored:

1. **Opportunities and Risks.** Policies should focus on the most valuable educational advances while mitigating risks.

2. **Trust and Trustworthiness.** Trust and safeguarding are particularly important in education because we have an obligation to keep students out of harm's way and safeguard their learning experiences.

3. **Quality of AI Models.** The process of developing and then applying a model is at the heart of any AI system. Policies need to support evaluation of the qualities of AI models and their alignment to goals for teaching and learning during the processes of educational adoption and use.

"AI in education can only grow at the speed of trust."
—Dr. Dale Allen