

AI POLICY LAB USE CASES ACTIVITY

Opportunities & Challenges



EDSAFE AI
ALLIANCE

Articulating Opportunities & Challenges

MODEL USE CASES ACROSS STAKEHOLDER GROUPS

Designed as part of EDSAFE AI's policy lab collaborations with Policy Labs across the country, the following are considerations for use cases of generative artificial intelligence across various stakeholders as well as a sample activity guide. As a precondition for these considerations, the Lab recognizes and supports the [United States Government Office of Management and Budget's](#) recent guidance on rights impacting AI and use case development as aligned with the EDSAFE AI SAFE framework.

CORE PRACTICES

- Identifying Federally Protected Classes in AI Data, including in education use cases
 - Requirement: AI impact assessments must identify when the AI system is using data that contains information about federally protected classes (e.g., race, age, sex, etc.).
 - Implication:
 - Data Sensitivity: Awareness of sensitive data usage is crucial, as it directly impacts compliance with anti-discrimination laws such as the Civil Rights Act.
 - Bias Mitigation: Identification enables the early detection of potential biases related to protected characteristics.
 - Transparency: Clearly documenting the use of protected class data fosters transparency and accountability.
- Analyzing Disparities Across Demographic Groups
 - Requirement: The AI system must be analyzed in a real-world context to identify significant disparities in the program or tool's performance across demographic groups.
 - Implication:
 - Equity Analysis: Systematic evaluation of AI impact ensures equitable outcomes across different demographic groups.
 - Performance Monitoring: Requires continuous monitoring to identify biases or disparities that might affect specific groups unfairly.
 - Policy Alignment: Ensures that AI systems align with federal, state and local policies on non-discrimination.



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- Mitigating Discrimination
 - Requirement: Any disparities that perpetuate discrimination must be mitigated.
 - Implication:
 - Intervention Measures: Actors should implement corrective measures to reduce outcome disparities.
 - Fairness Mechanisms: Introduce fairness mechanisms like re-weighting or adversarial debiasing to minimize discrimination.
 - Policy Review: Review and refine existing policies to ensure equitable treatment.
- Ceasing AI Use if Risks Cannot be Mitigated
 - Requirement: If the agency/organization cannot mitigate the risk of discrimination against protected classes, they must cease the use of AI for decision-making.
 - Implication:
 - Ethical Responsibility: Prioritizes ethical use over operational convenience by stopping discriminatory practices.
 - Risk Management: Agencies and organizations should have contingency plans for alternate decision-making processes if AI cannot ensure fairness.
 - Legal Compliance: Ensures adherence to laws protecting against discrimination (e.g., Civil Rights Act, Age Discrimination Act).

POLICY LAB WORKSHOPS ON AI USE CASES

Through a series of workshops, policy lab participants created guiding principles for considerations of use cases within stakeholders. These guiding principles balance the promise of AI with the peril of bias and risk. Core to the considerations of the use cases was the need to balance skill development with joy and centering the human enterprise in education. In addition to the work aligned on use cases, stakeholders were able to identify key knowledge and AI literacy skills gaps for consideration.

Guiding Principles that emerged:

- Augmentation over Replacement: AI should augment human capabilities rather than replace them.
- Positive Intent: Assume positive intent and ethical considerations.
- Critical Thinking: Pair AI usage with critical analysis and human interaction.
- Diversity in Application: Consider grade level, maturity, bias, cultural expectations, and other factors.
- Student Enjoyment: Encourage ethical discussions around AI, as students find them engaging.
- Disparity Mitigation: Proactively identify and address disparities across demographic groups.



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POLICY LAB USE CASE WORKSHEET

The following pages are intended for group discussions and meant to highlight building shared knowledge and understandings of the potential benefits, drawbacks, threats, and opportunities for redefinition. A sample use case chart for students that was derived from our interactions with a policy lab is below to provide context. These completed charts should be included in early-stage conversations about the ways that AI might be operationalized and should inform planning conversations that occur prior to deployment of AI in education.

SAMPLE STUDENT USE CASE CHART

<p>Potential benefits of using AI tools for our stakeholders</p> <ul style="list-style-type: none">• Write a summary of this text/event• Brainstorming ideas for essays• Exploring Mathematical Concepts• Personalized Learning Paths• Differentiated materials - can you explain this to me in a new way? Format?• ((If AI tool is vetted for information))• Partnership with teachers• Creating practice questions/concepts• Creating flash cards• Socratic exploration• General Study skills• Text to speech and live translations• Note taking and synthesizing ((for accessibility))• Transcribing/Editing	<p>Potential drawbacks of using AI tools for our stakeholders</p> <ul style="list-style-type: none">• Parental Consent• Write a summary of this text/event• Oversharing personal information• Inconsistencies across curriculum - PEMDAS vs GEMs, changing methodologies
<p>Potential Opportunities for Redefining Important Knowledge & Tasks for Our Stakeholders</p> <ul style="list-style-type: none">• Secondary grades Edit my essay for clarity• Adobe to create animations to showcase their learning• Equitable access to Therapy• Fall 2020/2021 Coding contest - develop apps beneficial from a social standpoint. Created an AI that allowed students to check in, talk to someone who was emotionally down, send an email to parent and social counselor to check in automatically. Potential for students to chat with AI chatbot with build in human escalation if needed.• Equitable access• Explain more - why is my answer incorrect• Aid in experimental design	<p>Potential threats of using AI tools for our stakeholders</p> <ul style="list-style-type: none">• Elementary/ foundational grades using AI to edit writing for clarity• Oversharing personal information• Writing essays for students• Therapy as a replacement for any human contact or• Spread of misinformation/veracity of information• Data privacy• Perpetuation of negative Beauty Standards• Problematic Photo editing to "fake" extracurriculars• Unintended Consequences of use• Copy and paste full writing assignments• Solving Math problems -> we are teaching processes not products

HOW WILL OUR STUDENTS USE AI?

Potential benefits of using AI tools for our stakeholders

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Potential drawbacks of using AI tools for our stakeholders

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Opportunities for redefining important knowledge & tasks for our stakeholders

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Potential threats of using AI tools for our stakeholders

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HOW WILL OUR HOW WILL OUR PARENTS & GUARDIANS USE AI?

Potential benefits of using AI tools for our stakeholders

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Potential drawbacks of using AI tools for our stakeholders

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Opportunities for redefining important knowledge & tasks for our stakeholders

-

Potential threats of using AI tools for our stakeholders

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HOW WILL OUR EDUCATORS USE AI?

Potential benefits of using AI tools for our stakeholders

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Potential drawbacks of using AI tools for our stakeholders

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Opportunities for redefining important knowledge & tasks for our stakeholders

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Potential threats of using AI tools for our stakeholders

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HOW WILL OUR ADMIN & DISTRICT LEADERS USE AI?

Potential benefits of using AI tools for our stakeholders

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Potential drawbacks of using AI tools for our stakeholders

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Opportunities for redefining important knowledge & tasks for our stakeholders

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Potential threats of using AI tools for our stakeholders

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HOW WILL OUR CENTRAL STAFF USE AI?

Potential benefits of using AI tools for our stakeholders

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Potential drawbacks of using AI tools for our stakeholders

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Opportunities for redefining important knowledge & tasks for our stakeholders

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Potential threats of using AI tools for our stakeholders

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