AI in Education: Crafting Responsible Use Policies for Emerging Technologies in US School Districts

A Position Paper for NSF Grant 2334525: Responsible, Ethical, and Effective Acceptable Use Policies for the Integration of Generative AI in US School Districts and Beyond

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Introduction

Ongoing public discourse highlights the rapid changes, concerns, and possibilities of Artificial Intelligence (AI), and specifically Generative AI (GenAI). It is crucial to understand how GenAI is integrated in schools, districts, and communities across the United States and its impact on learners, educators, families, and the broader school community. However, districts and schools vary widely in their readiness to access, understand, and implement GenAI tools. The *Responsible, Ethical, and Effective Responsible/Acceptable Use Policies (R/AUPs) for the Integration of Generative AI in US School Districts and Beyond* (RAPID, NSF #2334525) project worked with a group of 11 district leaders from Digital Promise's League of Innovative Schools throughout the 2023-2024 academic school year to better understand how districts were developing early guidance, guardrails, and policies for their community members to implement rapidly changing emerging technologies including GenAI systems and tools. This research-practitioner group, known as the GenAI Working Group, actively developed and co-designed sample and exemplar responsible and acceptable use policies (R/AUPs) for Generative AI and other emerging technologies.

This paper delves into the complexities surrounding the integration and adoption of emerging technologies, including GenAI, by diverse school districts across the United States. By sharing the insights from this collaborative effort, we aim to equip the field with knowledge and resources to navigate the evolving emerging technology landscape and help education leaders make informed decisions that benefit their learners and communities. The collaborative work of the districts has led to important conversations about the incorporation of GenAI and additional emerging technologies in their existing R/AUPs, with a specific focus on how to integrate these technologies equitably and responsibly, to ensure that everyone in the community is included and considered. The project team encourages educators and education leaders to use the information and content developed as part of this project to guide their own journey in integrating emerging technology tools into their district and school policies.

Background

Hundreds of applications that integrate GenAI are emerging daily but lack evidence to support claims about their impact and utility for learning, which can affect the appropriate adaptation of policy (Lodge et al., 2023). Users are also rapidly adopting using GenAI tools: The Walton Family Foundation (2023) recently surveyed 1,002 K-12 educators and 1,000 learners in the U.S. and found that 51% of educators are using ChatGPT. Many of them (40%) reported using it at least once a week. Despite its rapid adoption, many people are uncertain about what GenAI is, how it works, and what the implications are for learners, families, and educators. Some educators have backgrounds in computer science or related fields, enabling them to understand developments in GenAI, while others do not. Even those with background knowledge in these fields may lack training in ethics and equity, or may be less familiar with the critical issues of GenAI in education, such as bias, equitable adoption, and addressing neurodiverse learners' needs (Sharples, 2023; Akgun & Greenhow, 2021; Nguyen, et al., 2023). There are widespread ethical concerns around the adoption of GenAI tools in education (UNESCO, 2023; Nguyen et al., 2023) as well as concerns about the environmental impact of these tools. More work also needs to be done to ensure that AI tools and systems are meeting accessibility needs of all learners and educators.

In order to understand the integration of GenAI in schools and districts across the United States, and the implications for learners, educators, and families, the GenAI Working Group project convened a diverse group of education leaders to collaboratively make sense of GenAI in education and inform the development of exemplar R/AUPs that center responsibility, ethics, and effectiveness. Researchers and district leaders brought their multiple perspectives to the design table to adjust and adapt existing technology policies to incorporate GenAI and other future emerging technologies (Goldman et al., 2022; Fusco et al., 2020).

Research Activities

Digital Promise's League of Innovative Schools (League) network brings together forward-thinking education leaders from 150 school districts in 38 states. The League is at the forefront of designing, piloting, and scaling solutions that can impact learning outcomes, with a focus on historically and systemically excluded learners. Recent network discussions have highlighted challenges that League leaders are facing regarding AI and emerging technologies for teaching and learning. The project team invited League districts to participate in theGenAI Working Group. Criteria to participate included an interest in equitable AI use and in-progress efforts to implement GenAI into their district's R/AUPs. Eleven members were selected to represent ten school districts that are geographically diverse, and include variation in school size, locality, Title I status, and student demographics.

Monthly Meetings

The GenAI Working Group research team and members met once per month in the 2023-2024 school year to discuss district progress on their R/AUPs and related ongoing conversations they were having with their district communities. Conversation themes included, but were not limited to, the financial burdens of purchasing AI systems, the evaluation of new tools and AI enhancements, data privacy for students and teachers, and the implications of AI in the context of the history of technology integration in schools.

Focus Groups and Interviews

The GenAI Working Group team conducted two focus groups over the course of the project: one in October 2023, which covered district leaders' thoughts and needs surrounding AI, and another in July 2024, which covered district leaders' thoughts on bias and ethics in AI. The research team conducted individual interviews with GenAI Working Group district leaders, in person and via Zoom, in March 2024. These 30-minute interviews delved into leaders' processes, and resources needed, for developing language for R/AUPs.

Developing a District-Wide AI Working Group or Task Force

While district leaders considered guiding language to include in their R/AUP's, they prioritized working with their district communities to learn about their understanding of AI, concerns, and local community needs. Many leaders convened district-wide working groups or task forces with members of their district communities to address this specific topic and to develop materials including responsible/acceptable use guidelines for their districts.

In general, AI working groups need to consider the many demographics within the school ecosystem. Educators, learners, and community members all bring different perspectives and ideas about how GenAI should be used in education. While multiple groups may share a hesitation about the use and integration of GenAI, their reasoning varies and it is critical to consider all perspectives when creating these guidelines and policies. The AI working groups in this project specifically provided feedback on AI-related policies and practices during their development, and continue to contribute to the ongoing evaluation of edtech tools and systems with an eye toward the assessment of emerging technology "enhancements" or integrations.

Conducting Empathy Interviews

Empathy interviews are open-ended conversations with a predetermined protocol that help researchers build relationships with community members while thoroughly listening to understand their needs, identities, and how those identities intersect with their experiences to determine how to best support their communities (Ruiz et al., 2021). The GenAI Working Group team trained district leaders to conduct empathy interviews, and then asked participants to speak to fifteen members of their district community between December 2023 and January 2024. Each

district leader spoke with five learners, five educators, and five community members (including parents and guardians). These empathy interviews helped district leaders learn more about educators', learners', and community members' understandings of AI.

Outcomes

The focus groups, interviews, and monthly meetings highlighted the shifting priorities of the participating school districts based on the emergence of AI and emerging technologies in education. Although all GenAI Working Group members were developing strategies to better understand GenAI use in their districts, they understood that their communities' modes of entry differed and that it was important to not rush into implementation.

District Confidence and Knowledge in AI Can Vary

Some district leaders were optimistic about the promise of integrating GenAI systems and tools, while others were reluctant about making this shift. However, they agreed on the importance of keeping privacy and ethics at the forefront to protect community members and to keep humans at the center of the policy. Rather than severely restricting AI usage, AI usage should be informed, proactive, and responsible. Learners and other members of the school community should feel comfortable, safe, and knowledgeable about how they use AI in schools. As one district leader shared, "We need to transform and shift that conversation and paradigm to be, 'These are the guidelines, these are the guardrails. This is what responsible use looks like day to day for our learners and staff.'"

GenAI Working Group members shared that educators are hesitant to integrate GenAI for a number of reasons, including the unknown impact of AI on the learning process, overall cost, and in some cases, a lack of AI literacy and technical expertise. In their conversations with district leaders, learners showed a mixed understanding of how generative AI works, and uncertainty about how to use it productively. Community members shared how their workforces are using generative AI, but had concerns about how rapidly changing technology will affect both their own daily lives as well as those of learners in their communities.

Responsible/Acceptable Use Policies for Emerging Technologies, Not Just GenAI

Although GenAI has been a focal point of recent conversations, it is not the only technology education leaders are grappling with. As AI and future emerging technologies continue to evolve, district leaders identified the need to revise R/AUPs to anticipate new challenges.

District leaders aim to provide broad guidance to their communities, both addressing current technologies and preparing for new ones.

Despite seeming urgency to update R/AUPs, district leaders' conversations with their colleagues and community members have revealed the need for more time to: (a) build knowledge around AI; (b) navigate its uncertain impact on teaching and learning; and (c) study ethical and responsible uses. The majority of school districts in the GenAI Working Group shared that they did not fully integrate AI into their R/AUPs at the end of the 2023-2024 school year. Districts felt strongly that despite the rapid pace of AI development and their learners' growing usage of AI tools on a variety of devices, they need to take their time to develop thoughtful and effective policies.

GenAI Guidance Topics

Conversations among district leaders and their community members reiterated the importance of resources to help understand and integrate AI and other emerging technologies in educational environments. Based on these conversations with districts and grounded in Digital Promise's AI Literacy Framework (Ruiz et al., 2024; Mills et al., 2024) and the EdSafe AI Alliance SAFE Benchmarks (EdSafe AI Alliance, 2024), we have determined six focus topics for R/AUPs: AI Literacy, Safety, Ethics, Transparency, Implementation Guidelines, and Evaluation and Impact. These topics are described in more detail below.

AI Literacy

This topic provides guidance on how to develop media literacy, digital literacy, and critical thinking skills to understand the safest and most ethical use of AI for learners, educators, and districts. Community needs in this area were common. For example, one participant shared: "How do you communicate policy in a practical way to our building leaders and our educators and making sure that they can appropriately use it? Without having some of that background and context around AI, it can just get really frustrating for educators and educators to understand that."

Although AI Literacy skills do not need to be explicitly stated in use policies, district leaders can offer guided language on "look-fors" when using GenAI tools. Additionally, rather than developing AI literacy as standalone courses, these skills and practices should be integrated across the curriculum and across grade levels where existing media literacy, digital readiness, and computational thinking skills are also addressed.

Safety

The safety topic prioritizes protecting student, teacher, and community data and privacy while managing potential cybersecurity risks, building on federal policies such as the Family Educational Rights and Privacy Act (FERPA) and the Children's Online Privacy Protection Rule (COPPA). These policies require parental consent before data is shared and set an age minimum

for using AI tools, such as 13 years old for chatbots. One participant shared their interest in more safety guidance for their district:

> "The safety aspect is much more technical. When you get into the harmful things that districts can be exposed to, it's beyond the classroom teacher or building principal. It's gonna be someone who has a technical background to provide the guidance to districts on what you're looking for, to ensure that your systems are set up so that it's safe in that aspect of it."

To see an example of how this concern is addressed in guidance language, readers can refer to Lynwood Unified School District, which states:

> "Users are prohibited from sharing confidential information or personally identifiable information with the AI system of another student, staff member, or other person. AI information should not be shared with the intent to threaten, intimidate, harass, or ridicule that person. Personally identifiable information includes, but is not limited to, a person's name, address, email address, telephone number, Social Security number, or other personally identifiable information."

Ethics

GenAI users need to be responsible, fair, and equitable, and acknowledge the biases in both humans and the synthetic outputs of GenAI. Fairness, ethics, and bias have emerged as high priority concerns when using AI. The Working Group shared that educators were primarily concerned about cheating, but were also concerned about how to support learners who may be potential victims of bias in AI systems and tools.

As one participant shared:

> "When we think about a district wide support policy we really have to think about who benefits and who might suffer from some of the decisions that we make. A lot of the learners who we serve and support are potential victims of bias. We've seen this and the research about some of the newer tools show bias against learners of color or learners who are learning English as a second language."

One example of including guiding language for ethical considerations comes from one GenAI Working Group member's documents:

> "Clear and transparent policies about acceptable AI use, and instruction around crediting tools and sources promotes the ethical use of AI tools" (San Ramon Valley School District).

Transparency

Leaders should be open about the processes they use when selecting GenAI tools for their schools and about the development and changes in their guidance. As the Office of Educational Technology shares, “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” (Office of EdTech, 2023).

In addition, guiding language should suggest that learners and educators be transparent when using GenAI tools in their work. One district leader provided broad language regarding transparency in their R/AUP that can be applied to all members of the school community. This example in their R/AUP states:

> “Transparency in AI systems is essential to us. We must work to ensure that the AI models we use are understandable, open to scrutiny, and can be overridden when necessary.”

Implementation Guidelines

Guiding language on implementing guidelines includes the ways that educators, learners, and others can use AI tools to the best of their abilities and to generate results that benefit them and their communities. This topic was front of mind for students and educators: both groups wanted clarity on when it is acceptable and not acceptable to use AI. Although users have agency to make the ultimate decision whether or not to use AI tools, they still need direction, especially when it comes to emerging technologies. To address this need for guidance, one district leaders shared the following in their R/AUP:

“Generative AI may be used …

- To gain clarity on academic content.
- For the planning elements of academic tasks such as gaining inspiration, ideation, brainstorming, organizing, structuring, etc.
- For drafting the first version of work for an academic task.
- To gain feedback for making improvements to the clarity or quality of work to improve the final product.”

Evaluation and Impact

The final topic indicated the importance of providing guiding language on how users should evaluate AI systems and tools, as well as the impact of their use, on an ongoing basis. Districts, educators, learners, and community members should continue to ask themselves if individual tools are beneficial or causing harm. Guiding language on evaluation should provide scaffolding on which tools a user may use depending on the need, and consider the consequences or benefits

of their decision. Helpful guidance on the evaluation of AI can be found in: AI Literacy: A Framework to Understand, Evaluate, and Use Emerging Technology (Mills, et al., 2024).

One district provided an example of guidance for their learners by stating in their R/AUP: "Learners should use AI tools with the guidance of trusted adults. Learners should evaluate the purpose, safety, and trustworthiness of AI tools before use."

Informing Future Research Practice

Short-Term

The GenAI Working Group project's primary deliverable Emerging Technology Guidance Language Deck serves as a living document which will update as districts learn more about how to incorporate language about emerging technologies in their acceptable use policies.

The project intends to share information about GenAI language guidance with districts who have historically faced barriers in accessing resources and knowledge about adopting and implementing emerging technologies. In the short-term, the GenAI Working Group project will share learnings to support the League of Innovative Schools network to understand and implement these guidance topics in their districts. The GenAI Working Group project also has short-term plans of disseminating at an international level. For example, Principal Investigator Ruiz was invited to participate in the development of international guidance on this topic with the European Union and the Organization for Economic Development. Further short-term dissemination plans include writing additional blog posts (two have already been written), presenting at additional conferences, and sharing emerging technology guidance language in other virtual and in-person settings.

Long-Term

As emerging technologies continue to grow at a rapid pace, the Emerging Technology Guidance Language deck will serve as a living document that can be updated as priorities continue to shift and additional technologies emerge. By cataloging the collaborative design process, bringing together district leaders who have worked with their individual communities to create intentional policies, the Emerging Technology Guidance Language deck and other dissemination products offer practical guidance for district leaders. These resources provide methods for continuously updating Responsible/Acceptable Use Policies and supporting resources in ways that are responsive to the needs of specific districts and their communities.

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