

The Rising use of Artificial Intelligence in K-12 Education



A Report of the
Pennsylvania Advisory Committee to the
U.S. Commission on Civil Rights

December 2024

Advisory Committees to the U.S. Commission on Civil Rights

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Acknowledgments

The Pennsylvania Advisory Committee would like to acknowledge the speakers who presented during the Committee's series of public meetings taking place in March and April 2024 as the Committee worked to understand broad and diverse perspectives on the civil rights impact of the rising use of artificial intelligence in education. The Committee is also grateful to those who contributed to this work during public comment and via written testimony.

**Pennsylvania Advisory Committee to the
U.S. Commission on Civil Rights**

The Pennsylvania Advisory Committee to the U.S. Commission on Civil Rights submits this report regarding the rising use of artificial intelligence in K-12 education. The contents of this report are primarily based on testimony the Committee heard during public meetings held via videoconference in March and April of 2024. The Committee also includes related testimony submitted in writing during the relevant period of public comment.

This report begins with a brief background of the issues the Committee considered. It then presents primary findings as they emerged from the relevant testimony, as well as recommendations for addressing areas of civil-rights concern. This report is intended to focus on civil-rights concerns regarding the use of artificial intelligence in education. The Committee specifically sought to examine how AI algorithms are developed, and the impact they can have on either reducing or exacerbating existing disparities (or creating new disparities) in the classroom based on federally protected classes. While additional important topics may have surfaced throughout the Committee’s inquiry, those matters that are outside the scope of this specific civil-rights mandate are left for another discussion.

**Pennsylvania Advisory Committee to the
U.S. Commission on Civil Rights**

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Overview

On December 13, 2023, the Pennsylvania Advisory Committee (Committee) to the U.S. Commission on Civil Rights (Commission) adopted a proposal to study the rising use of artificial intelligence (AI) in K-12 education. The focus of the Committee’s inquiry was to examine how AI algorithms are developed, and the impact they can have on either reducing or exacerbating existing disparities¹ (or creating new disparities) in K-12 classrooms based on federally protected classes. The Committee also examined potential solutions and recommendations to remediate identified concerns.

As part of this inquiry, the Committee heard testimony via a series of web-based video conferences held throughout the months of March and April, 2024.² The following report results from a review of the testimony provided at these meetings, combined with written testimony submitted during the related timeframe. It begins with a brief background of the issues to be considered by the Committee. It then presents primary findings as they emerged from this testimony. Finally, it makes recommendations for addressing identified civil-rights concerns. This report focuses on the civil-rights impact of the rising use of AI in education throughout Pennsylvania (and the country). While other important topics may have surfaced throughout the Committee’s inquiry, matters that are outside the scope of this specific civil-rights mandate are left for another discussion. This report and the recommendations included within it were adopted unanimously by the Committee on November 20, 2024.

Background

Despite the promise of equal educational opportunity, significant disparities persist in educational opportunities, outcomes, and academic achievement based on race, sex, and national origin.³ Students of color are often concentrated in schools with fewer resources; more likely to be subjected to out-of-classroom disciplinary measures; have less access to honors or advanced placement courses; and are more concentrated in schools with less qualified teachers, teachers with

¹ Robinson, Kimberly Jenkins, Protecting Education as a Civil Right: Remediating Racial Discrimination and Ensuring a High-Quality Education (December 2021). Learning Policy Institute 2021, Available at SSRN: <https://ssrn.com/abstract=4053723>; American Psychological Association, Education Directorate: Ethnic and Racial Disparities in Education, at: <https://www.apa.org/ed/resources/racial-disparities>; United Negro College Fund, K-12 Disparity Facts and Statistics, at: <https://uncf.org/pages/k-12-disparity-facts-and-stats>.

² Meeting records and transcripts are available in Appendix.

Briefing before the Pennsylvania Advisory Committee to the U.S. Commission on Civil Rights, March 25, 2024, (web-based), Transcript (hereinafter cited as “Transcript I”).

Briefing before the Pennsylvania Advisory Committee to the U.S. Commission on Civil Rights, March 27, 2024, (web-based), Transcript (hereinafter cited as “Transcript II”).

Briefing before the Pennsylvania Advisory Committee to the U.S. Commission on Civil Rights, March 29, 2024, (web-based), Transcript (hereinafter cited as “Transcript III”).

Briefing before the Pennsylvania Advisory Committee to the U.S. Commission on Civil Rights, April 25, 2024, (web-based), Transcript (hereinafter cited as “Transcript IV”).

³ American Psychological Association, Presidential Task Force on Educational Disparities. (2012). Ethnic and racial disparities in education: Psychology’s contributions to understanding and reducing disparities (pp. 14 et. seq.). Retrieved from <http://www.apa.org/ed/resources/racial-disparities.aspx>; United Negro College Fund, K-12 Disparity Facts and Statistics, at: <https://uncf.org/pages/k-12-disparity-facts-and-stats>.

lower salaries, and novice teachers.⁴ Advocates point to standardized testing as a cautionary tale of how attempts to streamline education can cause additional harm to marginalized groups.⁵ For example, persistent racial disparities in SAT and ACT scores have been highlighted as a hinderance which reflects and reenforces racial disparities across generations.⁶

In considering the impact of AI on education inequality, it is crucial to separate two broad functions: teaching students how to understand and use AI and using AI to teach, evaluate and monitor students. The first is absolutely crucial, as students will definitely encounter AI in the world and need to know how to work with it in order to be successful. The second must be approached with great caution, in order not to cause harm.

AI has already entered the education world, promising solutions to allow teachers and administrators to more easily personalize and streamline tasks such as adjusting learning plans for individual student needs.⁷ These uses have the potential to offer enhanced, individual learning opportunity for students who may otherwise have been marginalized by more traditional education approaches. Such benefits must be considered with appropriate caution, however. The “digital divide” in access to technology already poses disadvantages for students in schools and districts with fewer resources than their peers in higher-resourced areas. What’s more, bias in AI programming is a well-documented phenomenon that has proven difficult for developers to correct.⁸ Bias can stem from training data used to teach AI systems how to make decisions, flawed algorithms resulting from such training data, and/or from cognitive biases of programmers who determine how the data is selected or weighted.⁹ When used in educational settings, such biases can cause serious civil rights concerns. For example,

- E-proctoring programs, designed to authenticate and monitor student activity during online exams, have repeatedly resulted in failed facial recognition for students with darker skin tones, trans, and non-binary people. These programs also have been known to flag mundane actions as potential cheating, such as eye movement tracking, or if a student reads a question out loud, which may disproportionately impact students with learning differences and neurodivergences.¹⁰

⁴ U.S. Department of Education, Office of Civil Rights Data Snapshot (2014), as reported by the United Negro College Fund, <https://unconf.org/pages/k-12-disparity-facts-and-stats>.

⁵ Perry, Andre and Turner-Lee, Nicol. The Hechinger Report. *AI can disrupt racial inequity in schools, or make it much worse*. (September 2019) At: <https://hechingerreport.org/ai-can-disrupt-racial-inequity-in-schools-or-make-it-much-worse/>.

⁶ Reeves, Richard and Halikias, Dimitrios. Race gaps in SAT scores highlight inequality and hinder upward mobility. Brookings. (February 2017) at: <https://www.brookings.edu/articles/race-gaps-in-sat-scores-highlight-inequality-and-hinder-upward-mobility/>.

⁷ Marr, Bernard. How is AI used in education: Real world examples of today and a peek into the future. Forbes (July 2018), at: <https://www.forbes.com/sites/bernardmarr/2018/07/25/how-is-ai-used-in-education-real-world-examples-of-today-and-a-peek-into-the-future/?sh=12821553586e>.

⁸ IBM Data and AI Team: Shedding Light on AI Bias with Real World Examples (October 2023), at: <https://www.ibm.com/blog/shedding-light-on-ai-bias-with-real-world-examples/>.

⁹ Ibid.

¹⁰ <https://www.baneproctoring.com/#letter>; See also: <https://www.fightforthefuture.org/news/2021-07-08-19-human-rights-civil-liberties-and-youth/>; Brown, Lydia X.Z. How Automated Test Proctoring Software Discriminates

- AI technology is being used in some districts to assess students’ prior and ongoing learning levels, to place students at appropriate subject levels, to schedule classes, and individualize instruction. If unchecked, algorithmic biases may perpetuate existing inequalities, for example, trapping low-income and minority students into low-achievement tracks.¹¹
- Reports suggest that internet filtering and blocking technology on student devices is more likely to block content associated with or about LGBTQ+ students and content that is associated with or about students of color, effectively resulting in a “digital book ban” with little visibility or monitoring.¹²
- School technology use has resulted in increased privacy concerns related to disciplinary actions.¹³ In November of 2020, a county police department in Florida was found to be using sensitive school district data to identify “at-risk youth who are destined to a life of crime.”¹⁴
- Schools are increasingly sending student online monitoring data to law enforcement officials. Students from low-income families, Black students, and Hispanic students are at the greatest risk of harm. This results because these students are more likely to rely on school-issued devices and thus are subjected to greater surveillance, law enforcement contact, and school discipline than their peers using personal devices.¹⁵
- The use of student activity monitoring software has also resulted in the nonconsensual disclosure of student sexual orientation and gender identity.¹⁶

Against Disabled Students. Center for Democracy & Technology (November 2020), At: <https://cdt.org/insights/how-automated-test-proctoring-software-discriminates-against-disabled-students/>.

¹¹ Paisley, Erinne. Teaching Students to Question Mr. Robot: Working to Prevent Algorithmic Bias in Educational Artificial Intelligence. Dataactive. (August 2020). At: <https://data-activism.net/2020/08/teaching-students-to-question-mr-robot-working-to-prevent-algorithmic-bias-in-educational-artificial-intelligence/>; Responsible Use of Data and Technology in Education: Managing Equity and Bias in Algorithmic Systems. Center for Democracy & Technology. At: <https://cdt.org/wp-content/uploads/2021/02/2021-02-19-Managing-Equity-and-Bias-in-Algorithmic-Systems-Two-Pager-FINAL.pdf>.

¹² Center for Democracy & Technology. EdTech Threats to Student Privacy and Equity in the Age of AI (September 2023), At: <https://cdt.org/wp-content/uploads/2023/09/091923-CDT-Off-Task-web.pdf>. Gallegos, Emma. AI, other education technology can infringe on rights of disabled, LGBTQ students, report warns. EdSource. September 2023, at: <https://edsources.org/2023/ai-other-education-technology-can-infringe-on-rights-of-disabled-lgbt-students-report-warns/697601#:~:text=The%20use%20of%20education%20technology,new%20report%20released%20Wednesday%20warns.>

¹³ <https://www.cnn.com/2020/09/26/us/student-suspended-gun-virtual/index.html>

¹⁴ Lieberman, Mark. *Using Student Data to Identify Future Criminals: A Privacy Debacle*. Education Week: Data. (November 2020), At: <https://www.edweek.org/technology/using-student-data-to-identify-future-criminals-a-privacy-debacle/2020/11>.

¹⁵ Hidden Harms: The Misleading Promise of Monitoring Students Online. Center for Democracy & Technology, (August 2022) at: <https://cdt.org/wp-content/uploads/2022/08/Hidden-Harms-The-Misleading-Promise-of-Monitoring-Students-Online-Research-Report-Final-Accessible.pdf>

¹⁶ Ibid.

During a 2019 conference on the topic, experts from around the globe sought to examine the current state of AI in education.¹⁷ These experts advised appropriate caution and additional research before adopting more widespread use of the technology.¹⁸ In late 2022, the White House Office of Science and Technology Policy released a Blueprint for an “AI Bill of Rights”¹⁹ including five key principles to address related concerns:

1. Protection from unsafe or ineffective systems, including pre-deployment testing and ongoing monitoring to ensure the safety and efficacy of systems used.
2. Algorithmic discrimination protection: requiring designers, developers, and deployers of automated systems to ensure that systems are proactively designed and continually monitored to ensure they are used in an equitable manner.
3. Data privacy: ensuring people have choices about how data about them is being used.
4. Notice and explanation: ensuring people are aware of the systems being used and how and why they contribute to outcomes that impact them.
5. Human alternatives, consideration, and fallback: people should have the choice to opt-out of automated systems and have access to a person who can quickly consider and remedy problems they encounter.

In this study, the Committee examined the rising use of AI in Pennsylvania elementary and secondary schools and educational institutions. In the ensuing report, the Committee discusses appropriate uses and benefits of incorporating AI in educational programs, as well as related civil-rights cautions and policy recommendations.

Methodology

As a matter of historical precedent, and in order to achieve transparency, Committee studies involve a collection of public, testimonial evidence and written comments from individuals directly impacted by the civil rights topic at hand; researchers and experts who have rigorously studied and reported on the topic; community organizations and advocates representing a broad range of backgrounds and perspectives related to the topic; and government officials tasked with related policy decisions and the administration of those policies.

Committee studies require Committee members to use their expertise in selecting a sample of panelists that is the most useful to the purposes of the study and will result in a broad and diverse understanding of the issue. This method of (non-probability) judgment sampling requires Committee members to draw from their own experiences, knowledge, opinions, and views to gain understanding of the issue and possible policy solutions. Committees are composed of volunteer professionals who are familiar with civil rights issues in their state or territory. Members represent

¹⁷ *Where does artificial intelligence fit in the classroom? Exploring myths, realities, and risks of bringing AI into education's future.* Teachers College of Columbia University. (September 2019), at: <https://www.tc.columbia.edu/aiconference/>

¹⁸ Ibid.

¹⁹ Blueprint for an AI Bill of Rights, The White House, at: <https://www.whitehouse.gov/ostp/ai-bill-of-rights/> (last accessed November 2024).

a variety of political viewpoints, occupations, races, ages, and gender identities, as well as a variety of backgrounds, skills, and experiences. The intentional diversity of each Committee promotes vigorous debate and full exploration of the issues. It also serves to assist in offsetting biases that can result in oversight of nuances in the testimony.

In fulfillment of Committees' responsibility to advise the Commission of civil rights matters in their locales, Committees conduct an in-depth review and thematic analysis of the testimony received and other data gathered throughout the course of their inquiry. Committee members use this publicly collected information, often from those directly impacted by the civil rights topic of study, or others with direct expert knowledge of such matters, to identify findings and recommendations to report to the Commission. Drafts of the Committee's report are publicly available and shared with panelists and other contributors to ensure that their testimony was accurately captured. Reports are also shared with affected agencies to request clarification regarding allegations noted in testimony.

For the purposes of this study, **Findings** are defined as what the testimony and other data *suggested, revealed, or indicated* based upon the data collected by the Committee. Findings refer to a synthesis of observations confirmed by majority vote of members, rather than conclusions drawn by any one member. **Recommendations** are specific actions or proposed policy interventions intended to address or alleviate the civil rights concerns raised in the related finding(s). Where findings indicate a lack of sufficient knowledge or available data to fully understand the civil rights issues at hand, recommendations may also target specific directed areas in need of further, more rigorous study. Recommendations are directed to the Commission; they request that the Commission itself take a specific action, or that the Commission forward recommendations to other federal or state agencies, policy makers, or stakeholders.

Findings

In keeping with their duty to inform the Commission of (1) matters related to discrimination or a denial of equal protection of the laws; and (2) matters of mutual concern in the preparation of reports of the Commission to the President and the Congress,²⁰ the Pennsylvania Advisory Committee submits the following findings to the Commission regarding the rising use of artificial intelligence in education. This report seeks to highlight the most salient civil-rights themes as they emerged from the Committee’s inquiry. The complete meeting transcripts and written testimony received are included in Appendix A and B for further reference.

Finding 1: Artificial Intelligence may have the potential to assist teachers and improve the educational experiences of children, providing them with valuable technological skills that could narrow opportunity gaps. It also has the potential to disrupt critical student-teacher relationships, diminish critical thinking, promote or reinforce bias, and widen the digital divide. As such, any use of AI in schools must be critically evaluated and implemented with proper precaution.

Artificial intelligence (AI) is a set of computing capabilities that allows machines to complete tasks typically associated with intelligent beings, such as perceiving the environment, analyzing and generalizing information, and providing sensible responses to questions and prompts.²¹ Over the past decade, among other uses AI has been encoded in the background of email, social media, streaming services, and web-browsers.²² More recently, AI-based tools have merged into a variety of public spaces, including in education.²³ With each potential new use of AI in education however, experts have urged caution.²⁴ A 2024 policy brief by the National Education Policy Center recommended a “pause” on AI use in education until appropriate regulations can be put in place.²⁵ AI’s current capacity is narrow and limited to very specific tasks that can be reduced to mathematical algorithms.²⁶ These algorithms can produce erroneous information; be trained on biased datasets; and undermine other, evidence-based teaching methodologies and students supports.²⁷ Concerns regarding efficacy, accuracy, privacy, bias, and the like have led some

²⁰ 45 C.F.R. § 703.2.

²¹ Heidari Testimony, Transcript I, p. 11 lines 34-38; Stewart Testimony, Transcript I, p. 8 lines 3-17.

²² Dias Testimony, Transcript III, p. 3 lines 7-25.

²³ Dias Testimony, Transcript III, p. 8 line 27 – p. 9 line 5 (The education technology field has merged into social technology, which merged into education, so there is no boundary between technology at large in society and technology in schools).

²⁴ Buher Testimony, Transcript III, p. 13 lines 27-35 (while AI has the potential to “improve pedagogical practices and student performance,” successful use of the technology requires a “deliberate, considered, and systematic approach” to its adoption in k-12 education).

²⁵ Williamson, B., Molnar, A., & Boninger, F. (2024). *Time for a pause: Without effective public oversight, AI in schools will do more harm than good*. Boulder, CO: National Education Policy Center. Retrieved September 2024 from <http://nepc.colorado.edu/publication/ai>. See also: Marachi Testimony, Transcript I, p. 5 lines 27-34; Concerns include: (1) inadequate research base; (2) restricted teaching and learning; (3) curricular misinformation; (4) AI programs are mechanized and limit critical thinking and grappling with information like should be taught in education. AI promotes low-level rote learning and thinking skills.

²⁶ Stewart Testimony, Transcript I, p. 8 lines 3-17.

²⁷ Turner Lee Testimony, Transcript II, p. 7 line 40 – p. 8 line 12; Heidari Testimony, Transcript I, p. 13 lines 3-9; Dobrin Testimony, Transcript IV, p. 4 lines 12-18; Okoh Testimony, Transcript I, p. 26 line 37-p. 27 line 7.

scholars to recommend restricting or prohibiting AI use in schools entirely, particularly in the youngest classrooms.²⁸ Specific uses and related concerns are described in additional detail in the following sections of this report.

AI assistance for teachers

AI can assist teachers with tasks such as personalizing lesson plans, drafting emails, creating grading rubrics, and evaluating students' work,²⁹ giving teachers more time to spend with students.³⁰ Each of these tasks must be carefully implemented and monitored, however, including training teachers to identify problematic outputs.³¹ For example, when using AI-based tools to personalize lesson plans, teachers must review these adaptations to ensure that they are appropriate for the student's needs.³² Teachers must similarly play an active role in monitoring output when using AI to evaluate student performance: AI has been found to award higher scores for use of sophisticated language, even if it is not used correctly.³³ It has also been found to unfairly dismiss dialects, the use of Ebonics, and other culturally intuitive or indigenous languages.³⁴

Ultimately some of these challenges can be mitigated by ensuring that AI tools serve to complement (rather than to replace) traditionally teacher-led tasks,³⁵ and that AI-powered outputs reflect appropriate uncertainty to the end user.³⁶ Dr. Angela Stewart of the University of Pittsburgh School of Computing illustrated: instead of reporting a particular student as “failing,” a predictive AI algorithm could report that a student has a “50% probability” of failing, accompanied by an explanation of this assessment, so that the teacher can then make their own decision accordingly.³⁷

²⁸ Buher Testimony, Transcript III, p. 25 lines 30-37. (Districts also need to be intentional about where and how AI technology is placed in schools, and may consider prohibiting the use of AI tools in k-3 classrooms entirely due to the risk of damaging critical social connections with peers and teachers, particularly at such a young age) *Note:* further discussion of children's social development needs is included later in this finding.

²⁹ Heidari Testimony, Transcript I, p. 13 lines 11-18 (teachers need to be educated about their limitations so they can watch for inaccurate information, bias, and impact on students); *See also:* Dobrin Testimony, Transcript IV, p. 3 lines 2-10 (AI makes it possible to meet the needs of the lowest performing students while also challenging the highest performing students to excel); Turner Lee Testimony, Transcript II, p. 8 lines 14-36 (adaptivity is probably one of AI's greatest strengths, to adjust and customize lesson plans to personalize student instruction). Stewart Testimony, Transcript I, p. 8 lines 18-41 (AI can analyze and score student writing like essays, it can also model what skills students have or don't have and provide personalized content to teach those skills or predict when a student needs help and relay that information back to the teacher).

³⁰ Turner Lee Testimony, Transcript II, p. 7 line 40 – p. 8 line 12.

³¹ Heidari Testimony, Transcript I, p. 15 lines 11-14 (Teachers must be properly trained to watch for potential issues, inaccuracies, bias information, and to monitor the impact on students). *See also:* Woelfel Testimony, Transcript II, p. 31 line 33 – p. 32 line 5 (Woelfel cautions that many people defer to AI assuming that AI knows more than them; human overseers need to know that AI must be evaluated for accuracy as a starting point); Turner Lee Testimony, Transcript II, p. 10 line 13 – p. 11 line 8 (teachers must be highly trained on how and when to use AI technology) Heidari Testimony, Transcript I, p. 14 line 42 – p. 15 line 3 (teachers, students, and parents must be aware of both the positive and negative potential of modern AI in education).

³² Turner Lee Testimony, Transcript II, p. 10 line 13 – p. 11 line 8; Heidari Testimony, Transcript I, p. 15 lines 11-14.

³³ Marachi Testimony, Transcript I, p. 5 lines 38-42.

³⁴ Turner Lee Testimony, Transcript II, p. 9 lines 10-17.

³⁵ Turner Lee Testimony, Transcript II, p. 10 line 13 – p. 11 line 8.

³⁶ Stewart Testimony, Transcript I, p. 24 lines 20-30.

³⁷ Stewart Testimony, Transcript I, p. 24 lines 20-30.

Finally, AI use in classrooms must always be accompanied by ongoing reporting and accountability mechanisms for when bias is identified. For example, if a teacher notices that AI is consistently assigning lower scores to the essays of Black students, that should be reported to the program developers, and the developers should be required to address it.³⁸

AI assistance for students

For students, AI can assist with tasks like summarizing text, brainstorming, outlining, and spell checking.³⁹ It can also provide students with more immediate feedback for improvement on their work.⁴⁰ However, students must be informed about the limited reliability of AI-generated content. Students are likely to be exposed to AI technologies in their daily life regardless of access at school.⁴¹ Therefore, schools must prioritize “information literacy” and teach students how to use AI-based technologies so that they are able to accurately evaluate the outputs.⁴² Teachers must also be trained to closely monitor the AI-based information and feedback being presented to students in their classrooms, to ensure its accuracy and appropriateness.

For students with disabilities, AI can provide accommodations such as reading text aloud, taking notes, or creating simulations and virtual reality lessons that can make learning more engaging and accessible.⁴³ However, as with other uses of AI in education, these tools should serve to augment, rather than replace human assistance. To date, students with disabilities have complained that technologies such as transcription, live captioning, social-emotional robots, speech recognition, and voice recognition are not adequate in quality or accuracy to replace human assistance.⁴⁴

AI use by school districts

For school districts, AI can help provide education access in rural areas where children cannot easily get to schools, or in economically disadvantaged areas where parents may not be able to get their kids to schools.⁴⁵ AI-based “e-learning” programs used in this way must again be closely monitored for accuracy and efficacy, and should only serve to augment existing services—filling in gaps in coverage and providing additional supports—rather than replacing them.⁴⁶

³⁸ Stewart Testimony, Transcript I, p. 24 lines 31-37; *Note*: additional discussion of bias is included in Finding 2.

³⁹ Heidari Testimony, Transcript I, p. 13 lines 18-28.

⁴⁰ Dobrin Testimony, Transcript IV, p. 3 lines 17-22.

⁴¹ Dobrin Testimony, Transcript IV, p. 23 lines 31-33; Bilger Testimony, Transcript IV, p. 28 lines 28-36.

⁴² Bilger Testimony, Transcript IV, p. 22 lines 1-11.

⁴³ Dobrin Testimony, Transcript IV, p. 3 lines 10-17; lines 26-32 (AI can create a more engaging learning experience for students with attention disorders and other disabilities through simulations and virtual reality); Shah Testimony, Transcript IV, p. 13 lines 5-10; p. 16 lines 24-30; p. 28 lines 7-9 (assistive technology powered by AI has a lot of potential to benefit students with disabilities, however research is still lacking); Stewart Testimony, Transcript I, p. 8 lines 18-41 (assistive technology might read text out loud for a student who is visually impaired).

⁴⁴ Shah Testimony, Transcript IV, p. 13 lines 14-25.

⁴⁵ Dobrin Testimony, Transcript IV, p. 3 lines 10-17.

⁴⁶ Turner Lee Testimony, Transcript II, p. 10 line 13 – p. 11 line 8 (advised that where AI is utilized, it should serve to compliment, rather than to replace, traditionally teacher-led tasks such as curriculum personalization and student performance assessments).

Finally, AI-powered programs can allow schools and districts to get enhanced data to identify patterns, predict performance, and flag student issues early on.⁴⁷ This data can help districts identify areas of need and target resources most effectively; however, districts using AI in this way must carefully consider privacy concerns and continually monitor outputs for bias.⁴⁸

Social-emotional learning and critical thinking

Much of the focus of primary education, particularly in the youngest classrooms, is on social and emotional learning. Children benefit from direct interaction with their teachers and peers, as well as from physical movement and activity.⁴⁹ Andrew Buher, founder and director of the national nonprofit Opportunity Labs, as well as scholar and lecturer at Princeton University School of Public and International Affairs, is an expert on policy and implementation challenges associated with the digital divide and technology adoption in k-12 schools.⁵⁰ Mr. Buher testified that one of the reasons technology has failed in education in the past is that it cannot motivate students and scaffold support in the same way that human teachers can.⁵¹ He cautioned that excessive technology use and the subsequent “collapse in play” is contributing to today’s “disastrous youth mental health crisis.”⁵² Michelle King of the Learning Instigator emphasized the importance of relationship building and trust in the educational environment.⁵³ She cautioned that AI provides “the allure of solving problems quickly,” but may not be solving the right problem.⁵⁴ Ms. King posited that increasing personal, human connection is the real solution to many of today’s challenges in education.⁵⁵ Yet, over-reliance on technology can undermine these critical human relationships and interactions.⁵⁶ Direct, personal interaction and human relationships are particularly important for children who are facing social and economic challenges, violence, illness, and other traumas.⁵⁷ Chad Dion-Lassiter, Executive Director of the Pennsylvania Human Relations Commission acknowledged that if incorporated consciously, AI might be useful for

⁴⁷ Dobrin Testimony, Transcript IV, p. 3 lines 22-26. (see cautions re: early warning systems in Finding 3)

⁴⁸ Further discussion of data privacy and cautions regarding bias is included in Findings 3&4.

⁴⁹ Dion Lassiter Testimony, Transcript III, p. 22 lines 5-31 (Young learners benefit from fluid human contact with teachers and peers, presenting to one another, reading to one another, playing physical games like hopscotch and dodgeball. We want to reduce sedentary behavior and increase activity and interaction and that should be carefully considered).

⁵⁰ Buher Testimony, Transcript III, p. 13 line 36-p. 14 line 5; profile at: <https://www.future-ed.org/team/andrew-buher/>

⁵¹ Buher Testimony, Transcript III, p. 31 lines 1-18.

⁵² Buher Testimony, Transcript III, p. 26 lines 5-9.

⁵³ King Testimony, Transcript IV, p. 10 lines 23-30 (“Social change moves at the speed of relationships, relationships move at the speed of trust. We need to focus on how we are in relationship with one another.”)

⁵⁴ King Testimony, Transcript IV, p. 18 lines 19-37.

⁵⁵ King Testimony, Transcript IV, p. 18 lines 19-37.

⁵⁶ Dobrin Testimony, Transcript IV, p. 4 lines 12-18 (reliance on technology potentially undermines the role of human teachers and the relationship between teachers and students (and students with their peers) and face to face interactions). *See also*: Dion Lassiter Testimony, Transcript III, p. 18 lines 18-29 (schools do better when they are student centered, and Socratic, which requires teacher interaction with the students.); King Testimony, Transcript IV, p. 18 lines 19-37 (AI amplifies the separation even when we all have commonality); Dion Lassiter Testimony, Transcript III, p. 18 lines 18-29 (AI can empower educators, personalize education, and accelerate learning, but it can also produce bias, misinformation, and student isolation).

⁵⁷ Dion Lassiter Testimony, Transcript III, p. 21 lines 1-19; p. 22 line 32 – p. 24 line 9.

coordinating school services or measuring outcomes;⁵⁸ but particularly for youth experiencing trauma and other interpersonal challenges, “face-to-face contact, interaction, and interpersonal skill building cannot be substituted through AI programming.”⁵⁹

Another primary purpose of education is to teach children “to think for themselves, not just to amass knowledge as quickly and efficiently as possible.”⁶⁰ But AI-powered teaching and learning tools tend to promote “rote, low-level learning and thinking skills,” rather than promoting the development of critical thinking.⁶¹ Exacerbating this concern, AI is specifically designed to create the impression of thought and intelligence, so users often place undue trust in its responses even if those responses are completely false or based on biased data.⁶² Without developing the necessary information literacy and critical thinking skills, AI can provide dangerous opportunities for the spread of misinformation and bias.⁶³ Mr. Buher concluded, “The potential benefits [of AI] are real, but generally they’re far off and they’re speculative.”⁶⁴ He offered the example of a theoretical classroom in which AI assistance is implemented to support teachers.⁶⁵ While the tools are initially helpful in tailoring lesson plans and providing student feedback, gradually they reduce meaningful interaction between students, teachers, and their peers. Teachers begin to deprioritize providing students with individual feedback and miss opportunities to really know them. Students begin to rely heavily on AI to make decisions, diminishing problem solving, creativity, and critical thinking. The AI tools make recommendations that are either not appropriate or are simply false. The need to continuously vet AI-generated content eliminates any time savings for teachers, undermining the purpose of the tools in the first place.⁶⁶

Considerations regarding the digital divide

Schools’ use of new and emerging AI-based tools and technologies raises questions of equitable access to computers, high-speed internet, and other resources necessary to utilize these programs effectively.⁶⁷ This “digital divide” is seen in both economically disadvantaged urban areas and in

⁵⁸ Dion Lassiter Testimony, Transcript III, p. 21 lines 19-26.

⁵⁹ Dion Lassiter Testimony, Transcript III, p. 22 lines 2-4.

⁶⁰ Boulder Testimony, Transcript III, p. 5 line 23 – p. 7 line 12.

⁶¹ Marachi Testimony, Transcript I, p. 5 lines 27-34.

⁶² Shah Testimony, Transcript IV, p. 18 line 39 – p.19 line 11 (AI responses are often trusted more than humans); Buher Testimony, Transcript III, p. 15 lines 19-27 (AI is designed to create the impression of thought and intelligence, so students will place undue trust in the technology and come to over rely on it); Bilger Testimony, Transcript IV, p. 19 lines 25-40 (there is an “information literacy deficit” and many people don’t evaluate, they just trust whatever they read, especially if it’s coming from a computer, even if it’s based on bias data).

⁶³ Further discussion of bias, misinformation, and censorship follows in the next sections of this finding, and throughout the remaining report.

⁶⁴ Buher Testimony, Transcript III, p. 14 line 27 – p. 15 line 18.

⁶⁵ Buher Testimony, Transcript III, p. 14 line 27 – p. 15 line 18.

⁶⁶ Buher Testimony, Transcript III, p. 14 line 27 – p. 15 line 18.

⁶⁷ Turner Lee Testimony, Transcript II, p. 8 lines 36-43; p. 12 lines 10-17 (53 million school age kids were at home during the COVID-19 pandemic, 30% of those did not have access to broadband, many schools struggled with the infrastructure to run online learning; AI will not be effective without “ubiquitous internet access”). Dobrin Testimony, Transcript IV, p. 4 lines 18-25 (AI can exacerbate the digital divide--populations that are already disadvantaged either won’t have access to the technology and/or won’t know how to use it). Buher Testimony,

rural areas that may not have widespread technology access.⁶⁸ Data collection efforts and the quality of available data are likely to be much better in districts with more robust resources, allowing them to use AI tools more effectively.⁶⁹ Even when all students have access to technology at school, students from more affluent backgrounds will likely have greater technology access at home, as well as access to family, private tutors, and other adults to help them navigate related challenges.⁷⁰ As such, Dr. Hoda Heidari of Carnegie Mellon University School of Computer Science cautioned that students from lower socioeconomic backgrounds, racial and ethnic minorities, and students with disabilities are disproportionately susceptible to AI’s risks and harms, while students from more privileged backgrounds are more likely to reap its benefits.⁷¹

While the growing use of new technologies in schools has the potential to widen opportunity gaps and exacerbate resource disparities, some have argued that, if implemented intentionally, it may improve them. Dr. Joseph Yun of the Swanson School of Engineering at the University of Pittsburgh argued that access to AI technologies could provide valuable opportunity for students from underserved communities to take “extraordinary social and economic leaps.”⁷² Dr. Yun shared his own story of how early exposure to coding and computer architecture propelled him into his current career, even as a first-generation immigrant from a family that did not have a lot of personal resources.⁷³ For this reason, Dr. Yun encouraged embracing and introducing AI to students early, because AI has the potential to allow for “unprecedented socio-economic movement” for those who embrace it, and “waiting for perfection could leave some students behind.”⁷⁴

In considering the nuances of these questions, Dr. Dobrin recommended “bifurcating the conversation” about AI, separating teaching students how to use AI from discussions of using AI for the purposes of teaching and assessing student progress. He argued, “we need to accelerate the first, slow down the second.”⁷⁵ Expanding and accelerating student learning of how to properly use AI tools and evaluate their output has the potential to open new pathways that could significantly narrow or even close opportunity gaps that students in under-resourced communities too often face.⁷⁶ Restricting the use of AI-based tools for actual teaching and assessing students until the effects of such can be properly studied and understood, can protect the most vulnerable

Transcript III, p. 14 line 27 – p. 15 line 18 (Affluent districts will have the budget to contract technologists to mitigate challenges and assist in implementation, but poorer districts will not, exacerbating existing inequities).

⁶⁸ Dobrin Testimony, Transcript IV, p. 4 lines 30-32.

⁶⁹ Heidari Testimony, Transcript I, p. 14 lines 11-17 (schools with more resources will likely have better quality and more representative data, and thus better AI tools; underprivileged schools will likely have spotty, bias, and unrepresentative data collection, as well as less access and education to use AI tools effectively).

⁷⁰ Buher Testimony, Transcript III, p. 15 lines 19-27. *See also*: Turner Lee Testimony, Transcript II, p. 9 lines 1-9, in remote-learning situations, teachers may also struggle with connectivity and internet access.

⁷¹ Heidari Testimony, Transcript I, p. 14 lines 26-34.

⁷² Yun Testimony, Transcript II, p. 5 lines 8-37.

⁷³ Yun Testimony, Transcript II, p. 5 lines 8-37.

⁷⁴ Yun Testimony, Transcript II, p. 2 lines 26-40. *See also*: Dobrin Testimony, Transcript IV, p. 4 lines 25-29. Dobrin cautioned that students who have less educational exposure to digital technologies in school will be at a disadvantage to their peers when they enter the workforce.

⁷⁵ Dobrin Testimony, Transcript IV, p. 22 line 37 – p. 23 line 4; p. 29 lines 13-16.

⁷⁶ Yun Testimony, Transcript II, p. 4 line 42 – p. 5 line 7; Dobrin Testimony, Transcript IV, p. 4 lines 25-29.

students from experiencing the potential harms and risks of these emerging technologies. Regardless of approach, Michelle King, veteran educator and teaching consultant, urged that districts slow down, and ensure that education be “a place for everybody to thrive, not just those who have the means and the resources.”⁷⁷

Finding 2: Development of new AI-based tools for education appears to be motivated by industry in search of a market, rather than by educators and school districts in search of solutions for current education challenges. Access to this market should be contingent upon proper design, efficacy, and attention to children’s civil rights and privacy concerns.

A primary concern of educators and researchers is that tech-programs and partnerships in schools are often driven by cost-efficiency and profit motives, rather than student learning.⁷⁸ Powerful technology companies have both the finances and the media reach to communicate narratives and shape policy,⁷⁹ leading to tremendous pressure for districts to “adopt or be left behind,” even though they have historically under-delivered on their promises.⁸⁰ It is widely understood that technology companies should not be left to “regulate themselves,” particularly in the educational context.⁸¹ Nevertheless, the imbalance of expertise and relevant computing knowledge between the public and private sectors challenges the effective oversight and regulation of AI systems in schools.⁸² Dr. Joseph Yun of the Swanson School of Engineering at the University of Pittsburgh testified that because the salaries offered by large technology companies eclipse salaries offered in the public sector, public regulatory agencies struggle to maintain the expertise needed to effectively monitor and address concerns regarding the use of AI from a public-good perspective.⁸³

Educator and teaching consultant Michelle King testified that even without malice, systems are built to benefit those who have the resources and power to create and maintain them.⁸⁴ She urged schools to slow down and understand “for whose benefit, and to whose detriment” these systems are being adopted.⁸⁵ Dr. Roxana Marachi of San Jose State University warned that public-private contracts often focus on return on investment for the funders, and are established in ways that shield private entities from the public oversight that would generally be expected of solely public initiatives.⁸⁶ Public advisory boards and people in city governance are often investors who stand

⁷⁷ King Testimony, Transcript IV, p. 10 lines 11-18.

⁷⁸ Dias Testimony, Transcript III, p. 9 lines 7-13 (Much of the expedited/rushed roll-out is pushed by the corporations and driven by profit); Buher Testimony, Transcript III, p. 31 lines 1-18 (It is driven by cost efficiency rather than being driven by learning).

⁷⁹ Marachi Testimony, Transcript I, p. 3 lines 30-34.

⁸⁰ Buher Testimony, Transcript III, p. 26 line 33 – p. 27 line 11. *See also*: Dias Testimony, Transcript III, p. 8 lines 29-36; Yun Testimony, Transcript II, p. 2 lines 26-40.

⁸¹ Buher Testimony, Transcript III, p. 26 lines 27-32; p. 28 lines 13-28 (it is not appropriate to count on the technology companies to regulate their own safety, efficacy, and privacy requirements); Dobrin Testimony, Transcript IV, p. 24 lines 19-21 (The industry can “absolutely not” be trusted to self-regulate); Shah Testimony, Transcript IV, p. 26 lines 22-24 (agreement that the industry “cannot govern itself”).

⁸² Yun Testimony, Transcript II, p. 23 line 287-p, 24 line 4.

⁸³ Yun Testimony, Transcript II, p. 23 line 287-p, 24 line 4; p. 34 lines 23-40.

⁸⁴ King Testimony, Transcript IV, p. 11 lines 10-14.

⁸⁵ King Testimony, Transcript IV, p. 11 lines 22-31.

⁸⁶ Marachi Testimony, Transcript I, p. 5 line 42 – p. 6 line 4.

to directly benefit from these lucrative public-private contracts.⁸⁷ The organizations that provide guidance to school districts for how to execute these contracts are also often captured by industry, so contracts are written to favor the interests of the industry rather than the interests of the public.⁸⁸ The technology industry has the financial ability and infrastructure to control both product development and messaging,⁸⁹ so promotional materials tend to “gloss over, ignore, or directly contradict” the known harms of AI.⁹⁰ Evaluation research is obscured from public scrutiny inside private contracts, even though its results are directly tied to the release of public funds.⁹¹ Local governments and school boards, eager to solve ongoing challenges in their classrooms, may be quick to adopt new, technology-based solutions without first evaluating their efficacy or understanding their impact,⁹² while strained public budgets provide ways for private entities to engage in complicated philanthropic efforts that further undermine public oversight and governance.⁹³

Limited liability

Developers currently face very limited liability when their AI algorithms cause harm.⁹⁴ AI programs are designed to index large, existing datasets and produce answers from them—similar to internet search engines such as Google.⁹⁵ Because this method of indexing data is largely protected under the open internet, its regulation is challenging.⁹⁶ What’s more, developers often cannot explain precisely how their algorithms reach specific recommendations, scores, or outcomes.⁹⁷ This deficiency leaves AI algorithms with no identifiable “bad actor” or “liable actor” responsible for problematic outputs.⁹⁸ These challenges make it difficult to remediate any concerns regarding discrimination or disparate impact either up-front through regulation or later through

⁸⁷ Marachi Testimony, Transcript I, p. 31 lines 5-40.

⁸⁸ Marachi Testimony, Transcript I, p. 35 lines 30-38.

⁸⁹ Marachi Testimony, Transcript I, p. 3 lines 30-34 (Global Silicon Valley has been pushing the narrative: vertical integration is when an entity has both the finances and the media reach to communicate the narratives and shape policy).

⁹⁰ Marachi Testimony, Transcript I, p. 6 lines 5-13. *See also*: Buher Testimony, Transcript III, p. 31 lines 1-18 (Adoption is based on promises rather than proven results, leading to quick disillusionment and tools that don’t deliver expected improvements).

⁹¹ Marachi Testimony, Transcript I, p. 32 line 37 – p. 33 line 28; p. 33 lines 36-40.

⁹² Marachi Testimony, Transcript I, p. 5 lines 21-23 (served on the Digital Privacy Advisory Task Force in San Jose, CA, and noticed a “pattern of rushing out [technology] solutions before there was a vetting of whether they worked or not.”)

⁹³ Marachi Testimony, Transcript I, p. 31 lines 5-40; *see also* Marachi Testimony, Transcript I, p. 4 lines 13-18 (these programs do not “just end up in classrooms” Philanthropists purchase, grant, and “gift” various tech tools that end up in classrooms “faster than legal protections can be enacted to prevent harms”).

⁹⁴ Turner Lee Testimony, Transcript II, p. 30 lines 13-20; (There are no punitive consequences so far associated with bad AI). *See also*: Turner Lee Testimony, Transcript II, p. 28 lines 6-30 (examples of harm: when a hiring algorithm passes up all female candidates; facial recognition software misidentifies people and causes legal trouble; or students lose financial aid opportunity or college admission because algorithms flagged or “downgraded” them, people are left to manage these challenges on their own because there is no liability).

⁹⁵ Yun Testimony, Transcript II, p. 22 line 27 – p. 23 line 8.

⁹⁶ Yun Testimony, Transcript II, p. 22 line 27 – p. 23 line 8.

⁹⁷ Okoh Testimony, Transcript I, p. 20 line 40 – p. 21 line 11.

⁹⁸ Shah Testimony, Transcript IV, p. 20 line 35 – p. 21 line 11.

discrimination claims reliant on existing civil rights law.⁹⁹ Even when developers do know exactly how algorithms produce their output, this information is often “proprietary” and not shared with end-users.¹⁰⁰

Allowing ed-tech partnerships in schools

It is likely that the workforce of the future will require at least some level of familiarity and competence with AI-powered digital technologies.¹⁰¹ As such, experts have urged schools to approach new AI-based tools with “healthy skepticism” and not “panic” or “hype.”¹⁰² Michelle King testified, “we don’t let people just walk into schools, we shouldn’t let new technologies either.”¹⁰³ Luke Bilger, Executive Director of Educational Technology for the School District of Philadelphia, testified that his district has restricted the use of generative AI altogether until they could “be more intentional and make informed decisions.”¹⁰⁴ The district currently only allows the use of AI tools that have been “vetted, contracted, and have data privacy agreements in place,” and does not currently support the use of AI in instruction, though the goal is to do so in the near future.¹⁰⁵

Andrew Buher of Opportunity Labs observed that “one of the most critical levers that school districts and schools have is through procurement.”¹⁰⁶ School procurement of supportive goods, materials, and services total more than \$800 billion in a single year.¹⁰⁷ Mr. Buher testified that leveraging this sum “may be an effective way for K-12 policymakers to shift the incentives. State guidance for districts and schools could include AI-specific privacy, data security, and equity benchmarks for companies to meet, to be eligible to sell to schools.”¹⁰⁸

Improving public oversight structures

Despite the imbalance of power and resources, structures can and should be put in place to make it easier for schools and districts to navigate appropriately implementing AI-based learning tools in their classrooms. Mr. Buher argued that while ultimately regulatory structures are most suitable at the federal level, absent meaningful congressional action, states can and should work to develop

⁹⁹ Okoh Testimony, Transcript I, p. 26 lines 19-36; see also p. 20 line 31 – p. 21 line 11 (despite legal protections it is difficult to bring legal challenges because of the lack of transparency associated with the technology and the inadequate remedies for the scale of algorithmic harm).

¹⁰⁰ King Testimony, Transcript IV, p. 11 lines 22-31.

¹⁰¹ Dobrin Testimony, Transcript IV, p. 4 lines 25-29.

¹⁰² Buher Testimony, Transcript III, p. 14 lines 9-19 (Fearing AI is a disservice to children, but it must be rigorously examined and evaluated in order to harmonize technological advancement with the “healthy holistic development of our youth”).

¹⁰³ King Testimony, Transcript IV, p. 25 lines 6-26.

¹⁰⁴ Bilger Testimony, Transcript IV, p. 6 lines 27-33. *Note:* See testimony updates in Mr. Bilger’s written statement, Appendix B.

¹⁰⁵ Bilger Testimony, Transcript IV, p. 8 lines 10-24 (The district currently only allows the use of AI tools that have been vetted, contracted, and have data privacy agreements in place) Bilger Testimony, Transcript IV, p. 6 line 39 – p. 7 line 6 (The district does not currently support the use of AI in instruction, though the goal is to do so in the near future). *Note:* See testimony updates in Mr. Bilger’s written statement, Appendix B.

¹⁰⁶ Buher Testimony, Transcript III, p. 16 lines 3-11.

¹⁰⁷ Buher Testimony, Transcript III, p. 16 lines 3-11.

¹⁰⁸ Buher Testimony, Transcript III, p. 16 lines 3-11.

“guardrails” to support their districts and schools.¹⁰⁹ He pushed back on the “adopt-or-be-left-behind” mentality, and urged states to provide superintendents with “cover to make bold decisions” about adopting new AI-based programs¹¹⁰ including limiting AI-powered products and tools in the classrooms until they can first establish empirical evidence of effectiveness.¹¹¹

Dr. Seth Dobrin, IBM’s first ever Global Chief AI Officer and CEO of Qantm AI,¹¹² similarly emphasized the need for “a set of principles specifically for education regarding boundaries for AI use.”¹¹³ Dr. Dobrin cautioned that not all school boards are equipped to handle proper AI implementation,¹¹⁴ and emphasized the need for consistent resources at the state and federal levels to ensure that all districts are armed to safely use and control this technology in a reliable manner.¹¹⁵ He emphasized that resources must be simple, easy, and consistent for districts to use.¹¹⁶ For example, governance documents are easy to standardize, and with proper guidance, not difficult to implement.¹¹⁷ Templates to allow schools to easily review procurement procedures, trainings, and curriculum would assist schools in making “good decisions with relatively low cost for legal reviews.”¹¹⁸

Other specific strategies that state lawmakers and districts could take include:

- Establishing benchmarks on safety, privacy, data security, and equity that must be met *before* companies are eligible to sell to schools.¹¹⁹
- Establishing procurement policies that require products to be designed and tested specifically in educational settings,¹²⁰ including rigorous evaluation based on contemporary data.¹²¹ Any claims made about the systems must match the evaluations done on them.¹²²
- Establishing third-party audit providers to assess whether vendors meet standard benchmarks, so that schools without the capacity to assess the products have support in

¹⁰⁹ Buher Testimony, Transcript III, p. 26 lines 27-32; p. 28 lines 13-28; see also: Heidari Testimony, Transcript I, p. 15 lines 15-26 (national guidelines and policies must be at the federal level; standardized resources and a basic level of universal access to the technology to ensure equitable use and access nationwide).

¹¹⁰ Buher Testimony, Transcript III, p. 26 line 33 – p. 27 line 11.

¹¹¹ Buher Testimony, Transcript III, p. 16 line 35 – p. 17 line 4; p. 25 lines 30-37 (States can provide framework for schools to create pilots that rigorously test new AI products and tools).

¹¹² Dr. Dobrin’s bio is available on his personal website, at: <https://drsethdobrin.com/>.

¹¹³ Dobrin Testimony, Transcript IV, p. 29 lines 8-12.

¹¹⁴ Dobrin Testimony, Transcript IV, p. 25 lines 27-38.

¹¹⁵ Dobrin Testimony, Transcript IV, p. 29 lines 17-22.

¹¹⁶ Dobrin Testimony, Transcript IV, p. 29 lines 8-22.

¹¹⁷ Dobrin Testimony, Transcript IV, p. 26 lines 1-17.

¹¹⁸ Dobrin Testimony, Transcript IV, p. 23 lines 21-30.

¹¹⁹ Buher Testimony, Transcript III, p. 16 lines 3-24.

¹²⁰ Turner Lee Testimony, Transcript II, p. 20 lines 3-21 (general-purpose technology should “not be tolerated”).

¹²¹ Heidari Testimony, Transcript I, p. 15 lines 3-10 (evaluations should rely on current field data, not just historical data records).

¹²² Heidari Testimony, Transcript I, p. 15 lines 3-10.

doing so.¹²³ Districts could also codify a right to pursue legal action in contracts if a company does not continue to meet established benchmarks.¹²⁴

- Establishing regional AI purchasing consortiums to negotiate the lowest cost and enforce acceptable procurement terms so that smaller districts are not disadvantaged with little bargaining power when purchasing from large technology companies.¹²⁵
- Creating state-wide repositories of procurement information and vendor performance reviews, available to all schools and districts as they vet AI providers and their compliance with established benchmarks, to ensure underserved communities are not shouldering more risk.¹²⁶

Existing civil rights frameworks

Although the mechanisms for discrimination might be new with AI-based technologies in schools, Attorney Kristin Woelfel of the Center for Democracy and Technology argued that discrimination itself is not new, and much of it can still be addressed with existing civil rights infrastructure at the federal, state and local levels.¹²⁷ For example:

- **Title VI of the Civil Rights Act** prohibits discrimination based on race, color, and national origin in programs and activities receiving federal financial assistance.¹²⁸
- **Title IX of the Civil Rights Act** prohibits discrimination based on sex, gender, and sexual orientation in any education program or activity receiving federal financial assistance.¹²⁹
- **Section 504 of the Rehabilitation Act** prohibits discrimination against people with disabilities in programs and activities that receive federal financial assistance.¹³⁰
- **Title II of the Americans with Disabilities Act** prohibits discrimination against qualified individuals with disabilities in services, programs, and activities provided by state and local governments.¹³¹
- **The Individuals with Disabilities in Education Act (IDEA)** guarantees that children with disabilities receive a free and appropriate education that is tailored to their needs in the least restrictive environment possible.¹³²

¹²³ Buher Testimony, Transcript III, p. 16 lines 3-24; see also: Turner Lee Testimony, Transcript II, p. 28 lines 31-41 (recommendation to create a third-party labeling or certification process in the AI/Education context to show that a product has been tested and is reliable before it reaches market).

¹²⁴ Buher Testimony, Transcript III, p. 16 lines 3-24; see also: Turner Lee Testimony, Transcript II, p. 20 lines 3-21 (need to ensure that companies are not “totally indemnified” from the use of their products).

¹²⁵ Buher Testimony, Transcript III, p. 16 lines 24-29.

¹²⁶ Buher Testimony, Transcript III, p. 16 lines 30-35.

¹²⁷ Woelfel Testimony, Transcript II, p. 13 lines 21-26.

¹²⁸ 42 U.S.C. § 2000d et seq.; Woelfel Testimony, Transcript II, p. 16 lines 18-31 (PPT Slide 31, Briefing 03.27.24); See also: Heidari Testimony, Transcript I, p. 15 lines 27-35 (Title VI requires students of all races, colors, and national origins to have equal access to general education interventions. Title VI needs to now include AI tools that are becoming an integral part of the educational experience of students).

¹²⁹ 20 U.S.C. § 1681 et seq.; Woelfel Testimony, Transcript II, p. 16 lines 18-31 (PPT Slide 31, Briefing 03.27.24).

¹³⁰ 29 U.S.C. § 794; Woelfel Testimony, Transcript II, p. 16 lines 18-31 (PPT Slide 31, Briefing 03.27.24).

¹³¹ 42 U.S.C. §§12131-12134; Woelfel Testimony, Transcript II, p. 16 lines 18-31 (PPT Slide 31, Briefing 03.27.24).

¹³² 20 U.S.C. §1400; Woelfel Testimony, Transcript II, p. 16 lines 18-31 (PPT Slide 31, Briefing 03.27.24).

Technology companies have powerful financial incentives to develop and scale AI-based education programs as quickly as possible. If children’s wellbeing is to remain a priority, panelists argued that legislators, public oversight agencies, districts, and schools will have to “shift” these incentives to focus on equity and child protection. Andrew Buher testified, “safety, privacy, bias, and efficacy will remain issues unless we can shift the incentives for technology companies to develop products designed for kids, with a deep understanding of children’s needs.”¹³³ Attorney Woelfel distinguished between “positive” and “negative” incentives for developers.¹³⁴ She described protecting children from potential harms as a “positive” incentive, and avoiding civil rights litigation as a “negative” incentive. Ms. Woelfel argued that negative incentives tend to be more powerful; while schools and districts wait for new guidance, existing civil rights laws and framework can and should be used in the education/AI context.¹³⁵ For example, predictive analytics that use or implicate protected characteristics in a way that creates a disparate impact can be addressed through existing civil rights law.¹³⁶

Finding 3: AI-based programs and tools are capable of creating and amplifying bias with far greater speed and efficiency than previously existed before these new technologies were developed.

Artificial intelligence is very different from technologies of the past both in its ability to generate original content and in its ability to make predictive decisions about new or unknown data.¹³⁷ Biases embedded in AI technology have the potential to reinforce patterns of discrimination and disparate impact faster, more efficiently, and in a way that is less transparent than previously seen.¹³⁸ Dr. Beatrice Dias, Assistant Professor in Digital Media, Learning, and Leadership from the University of Pittsburgh School of Education described AI algorithms as “opinions embedded in code.”¹³⁹ While AI programming may or may not be used in intentionally biased ways, lack of diversity on development teams¹⁴⁰ coupled with training data and algorithms that neglect or poorly represent marginalized groups,¹⁴¹ seems to inescapably reinforce existing biases already prevalent

¹³³ Buher Testimony, Transcript III, p. 15 line 39 – p. 16 line 2.

¹³⁴ Woelfel Testimony, Transcript II, p. 27 lines 16-30; p. 33 lines 5-16.

¹³⁵ Woelfel Testimony, Transcript II, p. 27 lines 16-30; p. 33 lines 5-16; see also: Shah Testimony, Transcript IV, p. 22 lines 15-36 (consider how existing civil rights protections might already apply to AI use in education).

¹³⁶ Woelfel Testimony, Transcript II, p. 17 line 39 – p. 18 line 6.

¹³⁷ Turner Lee Testimony, Transcript II, p. 6 lines 26-30; Stewart Testimony, Transcript I, p. 8 lines 18-41; p. 9 lines 1-15; Heidari Testimony, Transcript I, p. 11 line 42 – p. 12 line 10; Buher Testimony, Transcript III, p. 13 lines 27-32.

¹³⁸ Dias Testimony, Transcript III, p. 3 lines 34-42 (discussing the example of the criminal justice system, using AI reinforces the same logics of anti-Black racism except it does it much faster, much more efficiently, and in a much less transparent way); Boulder Testimony, Transcript III, p. 4 lines 35-39 (AI makes racism and discrimination more efficient and less transparent). Okoh Testimony, Transcript I, p. 26 lines 8-19 (the scope and scale of harm with these kinds of big data systems is much larger than we have seen before).

¹³⁹ Dias Testimony, Transcript III, p. 4 lines 12-21; quoting Cathy O’Neil at: https://youtu.be/_2u_eHHzRto.

¹⁴⁰ Shah Testimony, Transcript IV, p. 19 lines 11-24; Turner Lee Testimony, Transcript II, p. 24 line 22 – p. 25 line 35; Dobrin Testimony, Transcript IV, p. 4 line 33 – p. 5 line 11; King Testimony, Transcript IV, p. 10 lines 3-10.

¹⁴¹ Stewart Testimony, Transcript I, p. 29 lines 16-29; Dobrin Testimony, Transcript IV, p. 3 line 33 – p. 4 line 2; Dobrin Testimony, Transcript IV, p. 17 line 41 – p. 18 line 2.

throughout society.¹⁴² Dr. Dias cautioned that AI-based tools have broad implications for all people, regardless of who is represented in the development and training of the programs, and regardless of whether or not people consent to be a part of them.¹⁴³ Some examples of these implications and effects include:

- Early warning systems are significantly more likely to falsely flag Black and Hispanic students for being at high risk for not graduating on time.¹⁴⁴ These programs integrate information regarding academic records, demographic characteristics, and socioeconomic background.¹⁴⁵ Some programs may even explicitly use race in the algorithms making predictions about a student’s risk level.¹⁴⁶ When teachers are not given any guidance on how to proceed with this information, the likelihood of disparate treatment in the classroom further increases.¹⁴⁷ These analytics follow students into other longitudinal data sets and can also lead to discriminatory policing.¹⁴⁸
- An AI math tutor may gather data that students from low-income school districts perform lower in math, and therefore feed those students remedial math content and deprive them of the opportunity to learn higher math.¹⁴⁹
- Facial recognition software used in e-proctoring as well as school surveillance programs has been shown to misidentify Black and Asian faces 10-100x more than White faces.¹⁵⁰ These errors have prevented students from accessing course materials and taking exams, and have resulted in accusations of cheating and flagging students with “suspicion” scores that become a permanent part of their student profile.¹⁵¹ E-proctoring programs are also more likely to accuse non-native English speakers¹⁵² and students with disabilities¹⁵³ of cheating simply because of different speech patterns or body movements.
- Only 28% of teachers say they have received guidance about how to respond if they suspect a student has used generative AI, but 64% report that students have been disciplined for

¹⁴² Yun Testimony, Transcript II, p. 2 line 40 – p. 4 line 41; King Testimony, Transcript IV, p. 9 lines 15-23; Dias Testimony, Transcript III, p. 3 lines 25-33.

¹⁴³ Dias Testimony, Transcript III, p. 3 line 42 – p. 4 line 11.

¹⁴⁴ Woelfel Testimony, Transcript II, p. 16 line 28 – p. 17 line 10.

¹⁴⁵ Heidari Testimony, Transcript I, p. 12 lines 11-15.

¹⁴⁶ Woelfel Testimony, Transcript II, p. 17 lines 11-19.

¹⁴⁷ Woelfel Testimony, Transcript II, p. 16 line 42 – p. 17 line 10 (Teachers handed color-coded lists of students and given no guidance on how to proceed, adding to the likelihood of corresponding disparate treatment in the classroom because students have been labeled low, moderate, or high risk of not graduating).

¹⁴⁸ Marachi Testimony, Transcript I, p. 5 lines 13-26 (PowerSchool is owned by Vista Equity Partners which also co-owns predictive policing platforms. Predictive policing platform TriTech is no longer used, but they are capturing data and we don’t know where the data are going or how they are harming youth). *Further discussion of student privacy and policing is included the following section of this report.*

¹⁴⁹ Stewart Testimony, Transcript I, p. 9 line 33 – p. 10 line 35.

¹⁵⁰ Boulder Testimony, Transcript III, p. 4 lines 22-39; p. 12 lines 28-40.

¹⁵¹ Marachi Testimony, Transcript I, p. 4 lines 17-23; Boulder Testimony, Transcript III, p. 4 lines 22-39; p. 5 lines 1-8; p. 12 lines 28-40. *Further discussion of privacy and surveillance is included in the following section of this report.*

¹⁵² Marachi Testimony, Transcript I, p. 5 lines 35-38.

¹⁵³ Shah Testimony, Transcript IV, p. 14 lines 4-10; *see also*: Dobrin Testimony, Transcript IV, p. 20 lines 11-18 (Example of turning head to try to hear better, but AI may interpret that as a sign of being dishonest).

using or being accused of using the technology.¹⁵⁴ A 2024 Report by the Center for Democracy and Technology found that students with disabilities are more likely to be disciplined for using generative AI.¹⁵⁵ But advocates have argued AI could be classified as “use of assistive technology” under Section 504¹⁵⁶ and IDEA,¹⁵⁷ and disciplining students with disabilities more for using AI may violate other rights.¹⁵⁸ Children from under-resourced school districts may also face higher likelihood of being accused of using generative AI.¹⁵⁹

- Social robots used as tutors and therapists for children with intellectual and learning disabilities collect sensitive personal information about children with disabilities, and could result in increased social isolation, violating FERPA,¹⁶⁰ IDEA,¹⁶¹ ADA,¹⁶² and Section 504.¹⁶³
- Where AI has been used to replace human assistance for students with disabilities, students have complained that technologies such as transcription, live captioning, social-emotional robots, speech recognition, and voice recognition are not adequate in quality or accuracy to provide the necessary accommodations.¹⁶⁴

¹⁵⁴ Woelfel Testimony, Transcript II, p.16 lines 1-17; see: Dwyer, Maddy & Laird, Elizabeth, *Up in the Air: Educators Juggling the Potential of Generative AI with Detection, Discipline, and Distrust*. Center for Democracy and Technology. March 2024, at: <https://cdt.org/wp-content/uploads/2024/03/2024-03-21-CDT-Civic-Tech-Generative-AI-Survey-Research-final.pdf>. *Original testimony indicated half of teachers reported that students were disciplined for using or being accused of using the technology; this figure was later corrected to 64% as indicated in Dwyer & Laird report.

¹⁵⁵ Dwyer, Maddy & Laird, Elizabeth. Report – Up in the air: Educators juggling the potential of generative AI with detection, discipline, and distrust. Center for Democracy & Technology. March 27, 2024, at: <https://cdt.org/insights/report-up-in-the-air-educators-juggling-the-potential-of-generative-ai-with-detection-discipline-and-distrust/>; See also: Woelfel Testimony, Transcript II, p.16 lines 1-17 (Special education teachers are more likely to report students have been disciplined for the using or being accused of using generative AI); Shah Testimony, Transcript IV, p. 14 lines 26-36 (licensed special educators adopt a more restrictive approach for generative AI; they are also more likely to be trained to detect AI use, and students with disabilities are more likely to be disciplined for using generative AI).

¹⁵⁶ 34 CFR § 104.4

¹⁵⁷ Individuals with Disabilities Education Improvements Act, Pub. Law No. 108-446, 118 Stat. 2647 (codified at 20 U.S.C. §1400, et seq.)

¹⁵⁸ Shah Testimony, Transcript IV, p. 14 lines 37-42; See also: Woelfel Testimony, Transcript II, p. 17 lines 26-36 (example of disciplining a student for using generative AI even if that is an accessibility accommodation for a disability, this could violate FAPE); Woelfel Testimony, Transcript II, p.16 lines 1-17 (students with disabilities stand to benefit from AI, for note taking, etc. so we don’t want to see them disciplined at higher rates for using it).

¹⁵⁹ Turner Lee Testimony, Transcript II, p.9 lines 17-31 (story of children from “needy communities” being accused of using generative AI because of the perfected language of their essays, reflecting the biases of the educators).

¹⁶⁰ Family Educational Rights and Privacy Act, Pub. Law. No. 93-380, 88 Stat. 574 (codified as 20 U.S.C. §1232g).

¹⁶¹ Individuals with Disabilities Education Improvements Act, Pub. Law No. 108-446, 118 Stat. 2647 (codified at 20 U.S.C. §1400, et seq.

¹⁶² 42 U.S.C. §§4151 et seq.

¹⁶³ Section 504 of The Rehabilitation Act of 1973, Pub. Law. No. 93-112 (codified at 29 U.S.C. §794); 34 CFR § 104.4; Shah Testimony, Transcript IV, p. 13 line 34 – p. 14 line 3 *Further discussion of student privacy and data protection is included in the following section of this report.*

¹⁶⁴ Shah Testimony, Transcript IV, p. 13 lines 14-25.

- Using AI-based tools to diagnose learning disabilities such as autism and dyslexia gives inappropriate medical powers to teachers and educators, leading to misdiagnoses and inappropriate treatment among other risks.¹⁶⁵

Bias can originate from any stage of the AI lifecycle.¹⁶⁶ In the pre-design or development stage, developers introduce bias in framing the problems that AI are designed to address.¹⁶⁷ During design, developers can build and train the AI models using data that contain and reflect historic patterns of racial and social inequality and civil rights abuses.¹⁶⁸ During deployment, users can implement algorithmic systems in a manner that introduces or exacerbates structural, social, and economic disadvantage for protected classes.¹⁶⁹

Dr. Yun described bias as an “unfixable, architectural limitation” of AI in its current form.¹⁷⁰ He explained that because machines do not understand the underlying meaning or concepts of the output generated, it is not possible to “take out the bad parts.”¹⁷¹ Dr. Heidari similarly testified that there is “no such thing as an unbiased algorithm.” Instead, the goal is to minimize harm, and to evaluate the “net harm versus net benefit,” only proceeding if the net benefit exceeds any harm.¹⁷² Dr. Heidari noted that some biases might be addressed by ensuring proper representation of every relevant student group in the program training data.¹⁷³ But other biases (such as a program designed to mimic the previous grading patterns of teachers, when those grading patterns were bias), would be much more difficult to correct.¹⁷⁴

¹⁶⁵ Shah Testimony, Transcript IV, p. 16 lines 7-17.

¹⁶⁶ Okoh Testimony, Transcript I, p. 20 lines 3-12. *See also*: Heidari Testimony, Transcript I, p. 14 lines 17-25 (Bias is caused by choices the designers make, the data the AI is trained on, evaluation criteria, and how the AI is promoted and used in the classroom).

¹⁶⁷ Okoh Testimony, Transcript I, p. 20 lines 3-12. *See also*: Turner Lee Testimony, Transcript II, p. 7 lines 1-18 (at the development phase, bias can come from the values, norms, and assumptions of the developers themselves).

¹⁶⁸ Okoh Testimony, Transcript I, p. 20 lines 3-12. *See also*: Turner Lee Testimony, Transcript II, p. 7 lines 1-18 (biases in development can transfer into the training data used).

¹⁶⁹ Okoh Testimony, Transcript I, p. 20 lines 3-12. *See also*: Turner Lee Testimony, Transcript II, p. 7 lines 1-18 (technology can start with one question but then over time not only unlawfully use data regarding federally protected categories, but also use inferential data about people’s demographic attributes); Dobrin Testimony, Transcript IV, p. 3 line 33 – p. 4 line 2 (AI training can lead to bias and discrimination based on race, gender, socioeconomic status, and other protected characteristics.); Okoh Testimony, Transcript I, p.20 lines 12-22 (AI may be used to cause intentional discrimination, rooted in explicit histories of scientific racism and eugenics).

¹⁷⁰ Yun Testimony, Transcript II, p. 2 line 40 – p. 4 line 41.

¹⁷¹ Yun Testimony, Transcript II, p. 23 lines 9-26.

¹⁷² Heidari Testimony, Transcript I, p. 23 line 27 – p. 24 line 11.

¹⁷³ Heidari Testimony, Transcript I, p. 28 lines 1-27. *See also*: Heidari Testimony, Transcript I, p. 14 lines 5-10 (AI only works well if it has access to large amounts of representative data that is gathered in a similar educational environment on similar students); Stewart Testimony, Transcript I, p. 29 lines 16-29 (need to have a culturally responsive focus where the systems can respond to the differences between students. But with large data sets, most of the data is coming from white students, which is where the bias is baked in); Dobrin Testimony, Transcript IV, p. 3 line 33 – p. 4 line 5 (there is a lot of missing data from more marginalized communities. Traditional methods for evaluating IQ, standardized testing, etc. all favor white populations and specifically white males.)

¹⁷⁴ Heidari Testimony, Transcript I, p. 28 lines 1-27.

Finding 4: Differing uses for AI-based tools and technologies in schools do not all carry the same risks or potential benefits. Regulation and oversight efforts should reflect these distinctions.

As lawmakers, school districts, and educators work to balance embracing new technologies with appropriately managing their risks and challenges, experts have recommended separating the conversation based on each potential use of these tools. Dr. Dobrin testified, “there’s the teaching of how to use AI, and then there’s using AI for the teaching and assessment of students. The latter, we need to be very slow and deliberate about. The former, we need to accelerate.”¹⁷⁵ Dr. Dobrin reasoned that schools must accelerate student learning regarding *how* to properly use AI tools, because “the rest of the world isn’t going to slow that down” and if students do not learn these skills, they’re “going to get left behind.”¹⁷⁶ In considering “anything other than teaching a human how to use AI in an education system,” however, Dr. Dobrin recommended that lawmakers turn their focus to assessing and mitigating disparate impact.¹⁷⁷ He argued that bias in the models themselves is not important; “what is important is the human outcome.”¹⁷⁸

Referring to the European Union’s AI Act,¹⁷⁹ Clarence Okoh recommended breaking down this latter category of AI use even further. He described three classifications of “risk” to consider: (1) those that should be prohibited outright; (2) those that should be subjected to preclearance; and (3) those that should be subjected to rigorous evaluation and oversight.¹⁸⁰ Mr. Okoh argued that some uses of AI are so primed for bias and potential harm, that attempting to implement them in a “less-bias” way is analogous to attempting to design a “more equitable literacy test” to determine voting rights.¹⁸¹ He urged regulators to focus less on bias remediation, and more on determining which uses of AI are permissible in the first place: “what domains should we *not* allow AI to exist in should be the first priority.”¹⁸²

As discussed in previous sections of this report, subject to rigorous outcomes evaluation, some AI tools may prove useful in assisting educators with tasks such as personalizing lesson plans and evaluating student work.¹⁸³ Among the most controversial and potentially harmful uses, however, are AI based technologies designed to perform student surveillance, content filtering, and censorship.¹⁸⁴ Using AI specifically for these tasks has involved approval and collaboration with agencies not typically involved in education, such as state, local, and federal law enforcement

¹⁷⁵ Dobrin Testimony, Transcript IV, p. 22 line 37 – p. 23 line 4; p. 29 lines 13-16.

¹⁷⁶ Dobrin Testimony, Transcript IV, p. 22 line 37 – p. 23 line 4; p. 29 lines 13-16.

¹⁷⁷ Dobrin Testimony, Transcript IV, p. 23 lines 5-20.

¹⁷⁸ Dobrin Testimony, Transcript IV, p. 23 lines 5-20.

¹⁷⁹ The EU Artificial Intelligence Act, up-to-date analysis available at: <https://artificialintelligenceact.eu/>

¹⁸⁰ Okoh Testimony, Transcript I, p. 29 line 31 – p. 30 line 19; p. 32 lines 29-33.

¹⁸¹ Okoh Testimony, Transcript I, p. 29 lines 23-33.

¹⁸² Okoh Testimony, Transcript I, p. 29 line 31 – p. 30 line 19; p. 32 lines 29-33. *See also*: Dias Testimony, Transcript III, p. 12 lines 18-27 (encourage grappling with the questions and determining how and which parts of AI we want to use and which parts we don’t and to reconcile the associated costs and tradeoffs).

¹⁸³ *See* Finding 1.

¹⁸⁴ Stewart Testimony, Transcript I, p. 24 lines 13-19. (considering harm v. benefit, we need to be selective: it is never appropriate to use AI for predictive policing in schools, but perhaps it is reasonable for teachers to use AI to assist in lesson planning and grading).

agencies and the Department of Homeland Security.¹⁸⁵ Data derived from these programs is often monitored by military and ex-military personnel with little or no experience with children, adding a potentially alarming layer of complexity that must be considered when developing appropriate regulations.¹⁸⁶

Student surveillance

AI algorithms depend on large datasets to generate content and make predictions. The ongoing growth and expansion of these datasets raises concern regarding privacy, particularly when this data involves children.¹⁸⁷ AI programs have the capacity to collect children’s social-emotional learning metrics, behavior metrics, biometric data, and other sensitive information, and to use this data for surveillance and predictive analytics that disproportionately impact vulnerable communities.¹⁸⁸ Fourteen states are now implementing cradle-to-career digital data initiatives, with “lifelong” educational records being stored in digital wallets known as “stackable digital credentials” that cannot be deleted.¹⁸⁹ While students may own access to their own data, companies that sponsor the AI software also own this data.¹⁹⁰ Dr. Roxana Marachi, Associate Professor of Teacher Education at San Jose State University, noted that even when data is aggregated, individuals can easily be re-identified with as few as 3-4 datapoints.¹⁹¹ Because edtech companies can be deemed a “school official” in relevant contracts, children’s data may not be protected under FERPA,¹⁹² allowing for extraction of vast amounts of data with “no real oversight.”¹⁹³ Most edtech

¹⁸⁵ Shah Testimony, Transcript IV, p. 15 line 21 – p. 16 line 7; p. 26 line 33 – p. 27 line 8.

¹⁸⁶ Shah Testimony, Transcript IV, p. 15 line 21 – p. 16 line 7; p. 26 line 33 – p. 27 line 8.

¹⁸⁷ Bilger Testimony, Transcript IV, p. 6 lines 9-26 (AI is at its base about data, so it is important that any tool has been vetted and includes a contract in place about data privacy and education in place for teachers about what should and should not be allowed to be used or collected in those programming); see also: Dobrin Testimony, Transcript IV, p. 4 lines 5-11 (citing privacy concerns regarding data, also noted that the way data is collected and used may violate some state and federal regulations); Dion Lassiter Testimony, Transcript III, p. 20 lines 10-41 (if used the wrong hands this data could be targeted for malicious intent such as recruiting for hate groups, targeting victims of hate crimes, sex trafficking, and other dangerous activity targeting children).

¹⁸⁸ Marachi Testimony, Transcript III, p. 4 lines 23-30; p. 31 line 25-p. 32 line 2. *See also*: Okoh Testimony, Transcript I, p.19 line 37 – p. 20 line 2 (surveillance technologies are disproportionately deployed against youth of color, queer and trans youth, and youth with disabilities); Okoh Testimony, Transcript I, p.17 line 40 – p. 18 line 3 (Teachers at Title I schools and special education teachers report higher prevalence of these technologies); Shah Testimony, Transcript IV, p. 13 line 34 – p. 14 line 3 (“social robots” used to support children with intellectual and learning disabilities collect personal information about children they interact with. This could violate FERPA, IDEA, ADA, Section 504); Shah Testimony, Transcript IV p. 15 lines 21-34 (surveillance and monitoring equipment designed to monitor students and reduce violence at school disproportionately targets students with disabilities for “non-normative” behaviors and movements and nudges them toward law enforcement agencies); Shah Testimony, Transcript IV, p. 15 line 35 – p. 16 line 7 (cameras in schools similarly flag students with disabilities as “suspicious” and send them to law enforcement because of societal biases against people with disabilities).

¹⁸⁹ Marachi Testimony, Transcript I, p. 6 line 21 – p. 7 line 16.

¹⁹⁰ Marachi Testimony, Transcript I, p. 7 lines 7-16.

¹⁹¹ Marachi Testimony, Transcript I, p. 25 lines 1-38.

¹⁹² 20 U.S.C. § 1232g; see also 34 CFR Part 99.

¹⁹³ Marachi Testimony, Transcript I, p. 4 lines 31-41.

companies pledge not to share or sell student data, but those companies are bought and sold regularly, and the data is sold with those transfers.¹⁹⁴

Dr. Marachi warned that “more data” does not necessarily imply “better” data or produce less-biased results.¹⁹⁵ Data sharing across systems (such as healthcare, academic, behavioral, policing, and even genomics) does, however, create dangerous new opportunities for surveillance and social control.¹⁹⁶ A 2023 study conducted by the Center for Democracy and Technology¹⁹⁷ found that:

- 38% of teachers reported their schools share sensitive data with law enforcement;
- 36% reported that their schools use predictive analytics to identify children who might commit future criminal behavior;
- 36% reported that their schools track students’ physical locations through their phones and other digital devices;
- 37% reported that their schools monitor the students’ personal social media accounts;
- 33% reported that their schools use facial recognition to regulate access to schools.¹⁹⁸

Despite federal protections barring the unauthorized disclosure of student records to third parties, including law enforcement, these technologies have greatly increased police activity and presence in schools in Pennsylvania and other states.¹⁹⁹ When surveillance programs and predictive algorithms flag students as “at risk,” these flags become a permanent part of student records.²⁰⁰

¹⁹⁴ Marachi Testimony, Transcript I, p. 3 lines 23-26.

¹⁹⁵ Marachi Testimony, Transcript I, p. 25 lines 1-38.

¹⁹⁶ Marachi Testimony, Transcript I, p. 25 lines 1-38; see also: Okoh, Clarence. *Dangerous Data: What communities should know about artificial intelligence, the school-to-prison-pipeline, and school surveillance*. The Center for Law and Policy. May 2024, at: <https://www.clasp.org/publications/report/brief/ai-data-justice-school-prison-pipeline/>

¹⁹⁷ <https://cdt.org/press/new-survey-students-and-teachers-say-tech-use-in-schools-is-still-threatening-privacy-civil-rights/>

¹⁹⁸ Okoh Testimony, Transcript I, p. 17 line 32 – p. 18 line 3. See also: Larid, Elizabeth; Dwyer, Madeliene; Grant-Chapman, Hugh. *Off Task: EdTech Threats to Student Privacy and Equity in the Age of AI*. Center for Democracy and Technology (2023), at: <https://cdt.org/wp-content/uploads/2023/09/091923-CDT-Off-Task-web.pdf>.

¹⁹⁹ Okoh Testimony, Transcript I, p. 17 line 15 - p. 18 line 15 (schools routinely procure controversial surveillance technologies from private third-party vendors without adequately scrutinizing these systems—this surveillance dramatically expands the presence of law enforcement into the lives of marginalized student populations and their families); Okoh Testimony, Transcript I, p.19 lines 18-36 (despite federal data protections, school surveillance technologies grant law enforcement extensive access to very sensitive data); Okoh Testimony, Transcript I, p. 18 lines 15-33 (The Pasco County School District in Florida shared confidential student records with law enforcement, which used the system to develop a secret predictive policing system to surveil students who were, “destined for a life of crime.” 18,000 students were in the database, and school-based police officers were instructed to surveil these children and develop actionable criminal intelligence on them. Local school-based officers in Boston shared 135 incident reports with Boston Regional Intelligence Center resulting in the detention and deportation of at least one student due to data sharing with local law enforcement); Woelfel Testimony, Transcript II, p. 15 lines 5-29 (88% of teachers say their schools monitor students online and 38% of teachers whose school uses this monitoring say that a student was contacted by law enforcement. This is higher for Title I teachers and licensed special education teachers; 46% special education teachers, and 42% Title I teachers); Turner Lee Testimony, Transcript II, p. 9 line 32- p. 10 line 10 (using AI for student surveillance and discipline could lead to unnecessary law enforcement action and increased discipline).

²⁰⁰ Marachi Testimony, Transcript I, p. 28 line 28 – p. 29 line 14.

Even if later shown to be issued in error, there is no way to “unflag” this data.²⁰¹ Attorney Clarence Okoh, Senior Policy Council at the Center for Law and Social Policy, testified that in addition to implicating a range of federal anti-discrimination and privacy protections;²⁰² young people’s exposure to law enforcement surveillance in school leads to heightened emotional distress, trauma, and PTSD; raises student fear for their safety; and evokes perceptions that they themselves are potential perpetrators who deserve to be surveilled.²⁰³ Students report the presence of surveillance technologies makes them less likely to seek help at school when experiencing mental wellness challenges, ultimately making schools less safe for everyone.²⁰⁴ Schools’ investment in surveillance technologies at the expense of other academic supports can further compound these issues, increasing the school to prison pipeline.²⁰⁵ A 2022 study in the Journal of Criminal Justice found students attending high surveillance schools have lower test scores, are less likely to attend college, and are more likely to face exclusionary discipline, with a disproportionate impact on Black students.²⁰⁶

Content filtering and censorship

AI-based technologies have been used to filter content on student devices in ways that some worry may amount to a “digital book ban.”²⁰⁷ Students and teachers have reported that content associated with LGBTQ+ students and students of color is more likely to be filtered and/or blocked than other similar content (for example, allowing access to taylorswift.com but not bet.com).²⁰⁸ Attorney Okoh testified that AI-based content filtering technology may be particularly concerning as lawmakers in some jurisdictions have pursued efforts to “silence, erase, and censor black history and LGBT identities in schools.”²⁰⁹ He cautioned that student device monitoring and social media surveillance expands schools’ capacity to enforce state censorship laws by limiting students’ access to digital content that affirms their identities, and provides schools the ability to punish

²⁰¹ *Ibid*; (Some fusion centers are scraping children’s social media accounts looking for violent language trying to predict who will be the next school shooter, etc. but without understanding youth culture these signs can be misunderstood. Once a student is flagged there is no way to “unflag” them. Allowing for erroneous data to be removed or edited would help with harm reduction.)

²⁰² Okoh Testimony, Transcript I, p. 20 lines 23-31; The use of AI for school safety and student discipline implicate Title VI and Title VII of the Civil Rights Act; Section 504 of the Rehabilitation Act; The Americans with Disabilities Act; The Individuals with Disabilities in Education Act; Title IX of the Education Amendments of 1972; Family Education Rights and Privacy Act; Children’s Online Privacy Protection Act; and Amendments I, IV, and XIV of the U.S. Constitution.

²⁰³ Okoh Testimony, Transcript I, p. 19 lines 4-14. *See also*: National Association of School Psychologists Research on School Security: The Impact of Security Measures on Students (2013), at: <https://audioenhancement.com/wp-content/uploads/2018/06/school-security-by-NASP.pdf>.

²⁰⁴ Okoh Testimony, Transcript I, p.19 lines 18-36.

²⁰⁵ Turner Lee Testimony, Transcript II, p. 9 line 32-p. 10 line 10.

²⁰⁶ Johnson, Odis Jr; Jabbari, Jason. Infrastructure of social control: A multi-level counterfactual analysis of surveillance and Black education. Journal of Criminal Justice. Vol 83. November-December 2022, 101983, at: <https://www.sciencedirect.com/science/article/abs/pii/S0047235222001039?dgcid=author>; see also: Okoh Testimony, Transcript I, p.19 lines 16 – 18; p. 22 lines 22-34.

²⁰⁷ Woelfel Testimony, Transcript II, p. 14 lines 20-39.

²⁰⁸ Woelfel Testimony, Transcript II, p. 14 lines 20-39.

²⁰⁹ Okoh Testimony, Transcript I, p. 18 lines 36-42.

students for accessing that content.²¹⁰ In addition to increasing student discipline and potential contact with law enforcement, Chad Dion-Lassiter, Executive Director of the Pennsylvania Human Relations Commission warned these tools may also create further educational disconnect and disengagement for Black, Brown, AAPI, LGBTQ+ students and others who feel that the curriculum does not reflect them.²¹¹

Finding 5: The long-term success, equity, and effectiveness of new AI-based tools in education depend on measured implementation that proactively seeks to prevent harms before they occur, as well as active participation and support from educators, parents, students, researchers, and other relevant stakeholders.

Speakers throughout this study emphasized that the development of AI-based tools and technologies in education must be proactively regulated and understood prior to their implementation in schools.²¹² Attorney Clarence Okoh of the Center for Law and Social Policy testified, “The idea that every technology should enter into the classroom or that every technology should enter into society and we should just think about remediation in a post-hoc fashion, just to me doesn’t feel like a viable path forward just given the scale of harms that we’re seeing in our communities.”²¹³

AI-assisted technologies, and the data they gather, have the potential to create identifiable permanent records that follow children for a lifetime.²¹⁴ Despite their potential benefits, the potential for unintended yet irreparable, life-long harm has led many experts to urge districts to limit or even stop implementation entirely until these tools can be properly understood, and appropriate guidance and transparency plans can be put into place.²¹⁵ Where new technologies are

²¹⁰ Okoh Testimony, Transcript I, p. 18 lines 1-4.

²¹¹ Dion Lassiter Testimony, Transcript III, p. 19 lines 3-26.

²¹² Shah Testimony, Transcript IV, p. 22 lines 33-36 (urged inclusion, attention to the civil rights impact, and caution in auditing *before* bringing new AI-based technologies into schools); Turner Lee Testimony, Transcript II, p. 20 lines 22-29 (urged proactively ensuring that whatever technology is developed is aligned with current civil rights protections, and that teachers are educated on this along with people deploying the technologies at the district and school levels); Bilger Testimony, Transcript IV, p. 6 line 27 – p. 7 line 6 (the School District of Philadelphia has restricted generative AI in the district entirely until they are able to make intentional, informed decisions. The district does not currently support the use of AI in instruction, but its goal is to do so in the near future).

²¹³ Okoh Testimony, Transcript I, p. 30 lines 7-10.

²¹⁴ Turner Lee Testimony, Transcript II, p. 6 lines 31-37 (we are dealing with technology that has amassed a huge amount of data, and can make predictive decisions, and curate publicly available content about each of us individually and create composites of what that behavior should determine); Marachi Testimony, Transcript I, p. 6 line 21 – p. 7 line 16 (regarding “lifelong” educational records being stored in digital wallets known as “stackable digital credentials” that cannot be deleted).

²¹⁵ Shah Testimony, Transcript IV, p. 22 lines 24-36 (think about slowing down, reducing the hype; do we even need these technologies right now in education?) Buher Testimony, Transcript III, p. 16 line 35 – p. 17 line 4; p. 25 lines 30-37 (recommended strategically limiting AI-powered products and tools in classrooms until they establish empirical evidence for effectiveness); p. 25 lines 30-37 (States should consider prohibiting the use of AI tools entirely in K-3 classrooms); King Testimony, Transcript IV, p. 25 lines 6-26 (“Just because you can create it doesn’t mean you should create it”).

necessary, deployment must include proactive, measured consideration of the impact on all populations, especially the most marginalized children.²¹⁶

Mr. Buher of Opportunity Labs testified that technology companies are unlikely to make serious moves toward self-regulation on their own accord, and many individual school districts do not have the resources or capacity to assume this responsibility by themselves.²¹⁷ Therefore, effective implementation will require input and collaboration from all stakeholders—not just lawmakers and regulators; but also administrators, teachers, parents, students, and community groups. These stakeholders must hold a significant, meaningful role in guiding emerging technologies from the very beginning, including design, development, and procurement, not just during implementation.²¹⁸

Teachers, parents, and students

If AI-based educational tools and technologies are to be designed with children’s needs as a focal point, teachers, parents, and students must be participatory actors from the very beginning of product development.²¹⁹ Students with disabilities, those from marginalized socioeconomic backgrounds, and racial and ethnic minorities must be represented at the table.²²⁰ Without input from these stakeholders, attorney and disability rights activist Maitreya Shah of the Berkman Klein Center for Internet & Society at Harvard University described development as a “playground” for those who may simply wish to experiment without fully appreciating the potential impact of the systems they build. Mr. Shah illustrated with the example of a developer who might “wake up one day and decide” to make a tool that tracks eyeball movements of a child with autism to diagnose or detect the disorder, even if they “have no idea about what autism is or are not autistic themselves.”²²¹

Once programs are deployed, parents, students, and teachers must be well informed of where they are being used and their limitations so that they can help identify flaws or gaps and make informed decisions about their use.²²² Mr. Buher noted that parents have historically played a role in

²¹⁶ Shah Testimony, Transcript IV, p. 22 lines 24-36 (if new technology is necessary, consider impact on all populations as well as marginalized groups and focus on auditing processes in deployment.)

²¹⁷ Buher Testimony, Transcript III, p. 28 lines 13-38. *See also*: Dobrin Testimony, Transcript IV, p. 24 lines 19-21 (The industry can “absolutely not” be trusted to self-regulate); Shah Testimony, Transcript IV, p. 26 lines 22-24 (Agree that the industry cannot govern itself)

²¹⁸ King Testimony, Transcript IV, p. 10 lines 3-10 (one of the challenges is that in the current system not everyone is at the table); Shah Testimony, Transcript IV, p. 13 lines 25-28 (these technologies should not be integrated without first asking people with disabilities what they think of them, involving them in the design and deployment, etc.) Buher Testimony, Transcript III, p. 15 line 39 – p. 16 line 2 (AI is not designed by expert educators from diverse backgrounds or using data that is representative of the students that will access it). Turner Lee Testimony, Transcript II, p. 19 line 35 – p. 20 line 2 (Need to ensure the people at the table designing and procuring EdTech products are representative of the educational community. There are often no educators as part of the teams doing the design).

²¹⁹ Turner Lee Testimony, Transcript II, p. 19 lines 30-35.

²²⁰ Heidari Testimony, Transcript I, p. 15 lines 15-26.

²²¹ Shah Testimony, Transcript IV, p. 19 lines 11-24.

²²² Dion Lassiter Testimony, Transcript III, p. 19 lines 27-35 (students and parents should know if AI is being used in programs, curriculum or grading systems so that they can help identify flaws or gaps in the program and make informed decisions about their education); Heidari Testimony, Transcript I, p. 15 lines 11-14 (teachers need to be aware about the limitations and capabilities before the tools are implemented in the classroom so that they can

technology adoption, and there is already a legal framework requiring parents to sign off on the use of student data and student data sharing—but there is a “massive gap” in understanding the risks and benefits associated with AI.²²³ This leaves an opportunity for state departments of education, districts, and schools, to build “substantial feedback loops” that allow parents to be knowledgeable advisors about these technologies for their children and to advocate for them.²²⁴ Teachers must similarly be aware of the limitations and capabilities of new technologies before the tools are implemented so that they can watch for potential issues, inaccuracies, and biased information, and monitor the impact on students.²²⁵ Mr. Buher challenged districts and lawmakers who “believe in the promise of AI” to “invest in professional training and development, ensuring that all educators have the time to reflect, experiment, and refine their practice with AI-powered products and tools.”²²⁶

Interdepartmental district collaboration

Attorney Kristin Woelfel of the Center for Democracy and Technology emphasized the need for multidisciplinary and interdepartmental committees to provide guidance and audit technology use in schools; for example, ensuring collaboration between data officers and district civil rights officers.²²⁷ At the very least, Ms. Woelfel urged that procurement be completed by people with the experience and expertise to ask appropriate questions and set expectations with vendors.²²⁸

In Philadelphia, Luke Bilger, Executive Director of Education Technology for the School District of Philadelphia, testified that the district established an AI oversight committee focused on creating relationships and collaborating with other districts to learn about AI before establishing district-wide guidance.²²⁹ The committee includes instruction teams, the special education office, the office of general counsel, the students’ rights and supports office, the IT security team, and the

watch for potential issues, inaccuracies, and biased information, and monitor the impact on students); Shah Testimony, Transcript IV, p. 22 lines 15-18 (everyone must have a seat at the table when developing AI regulations; people can participate when regulations are being considered).

²²³ Buher Testimony, Transcript III, p. 28 lines 13-38 (reference to FERPA and COPPA, Family Educational Rights and Privacy Act and the Children’s Online Privacy Protection Rule).

²²⁴ Buher Testimony, Transcript III, p. 28 lines 13-38. See also: Turner Lee Testimony, Transcript II, p. 30 line 21 – p. 31 line 8. (schools must build a “feedback loop” for families to report to if they are concerned that technology has been used improperly with their child).

²²⁵ Heidari Testimony, Transcript I, p. 15 lines 11-14.

²²⁶ Buher Testimony, Transcript III, p. 17 lines 10-18.

²²⁷ Woelfel Testimony, Transcript II, p. 18 lines 7-17 (recommended establishing AI guidance Committee or AI policy Committee to audit and update school’s non-discrimination policies to address data and technology use; designate specific personnel to ensure compliance with nondiscrimination law; bridge connections between data and civil rights officers in schools and states; and conduct analysis and publicly report information on nondiscrimination policies.) See also, Woelfel Testimony, Transcript II, p. 21 lines 19-36 (emphasized procurement must be managed by people with the expertise and knowledge to evaluate whether purchasing can meet the school’s needs and comply with the school’s policies on privacy and antidiscrimination).

²²⁸ Woelfel Testimony, Transcript II, p. 21 lines 19-36 (Some schools have procurement done by someone in the finance office. This needs to be people who can ask questions, show them your antidiscrimination policy and have an honest conversation about whether purchasing can meet the school’s needs and comply with the policies).

²²⁹ Bilger Testimony, Transcript IV, p. 6 lines 33-38. *Note:* See testimony updates in Mr. Bilger’s written statement, Appendix B.

district communications office.²³⁰ The committee has met with teachers, parents, and students to ask them how they feel about AI and how they are currently using it.²³¹ They have also worked to provide an introduction and definitions of AI and its risks and benefits to staff, families, and students; create guidance for students, educators, and staff; develop an AI use continuum so teachers can determine the level of AI integration they want in their assignments; and to create guidance and frequently asked questions for students' use.²³² The committee is also developing professional learning opportunities so that teachers and staff can be properly trained to use AI in the correct way and avoid risks.²³³

Purpose-driven implementation

As schools and districts grapple with new technologies that are unfolding far faster than previously experienced,²³⁴ evidence regarding the efficacy and safety of implementing them at scale has not kept pace.²³⁵ Governance and oversight efforts must delineate responsibilities of AI creators, educators, students, and their guardians.²³⁶ Dr. Beatrice Dias urged that solutions be multiple and community driven. She testified, "it's not like this one large regulatory action is going to solve all our problems."²³⁷ Dr. Dias encouraged people and communities to create their own narrative for what they want education to look like, and then allow technologists to respond to that vision, rather than the other way around.²³⁸ She provided the example of a community in Barcelona, Spain, that is focusing on community initiatives to determine people's vision for education, and then using that vision to guide local policy regarding how technology is used in that space.²³⁹

In developing guidelines, Andrew Buher encouraged states to incentivize districts to invest in curriculum that centers the human relationship, even as they explore new technologies.²⁴⁰ Dr. Nicol Tuner-Lee of the Brookings Institution urged schools to create guidance that centers equity and "works backwards" from high-risk scenarios to ensure protection of children's privacy and

²³⁰ Bilger Testimony, Transcript IV, p. 6 line 39 – p. 7 line 6. *Note:* See testimony updates in Mr. Bilger's written statement, Appendix B.

²³¹ Bilger Testimony, Transcript IV, p. 7 lines 6-20. *Note:* See testimony updates in Mr. Bilger's written statement, Appendix B.

²³² Bilger Testimony, Transcript IV, p. 7 line 38 – p. 8 line 7. *Note:* See testimony updates in Mr. Bilger's written statement, Appendix B.

²³³ Bilger Testimony, Transcript IV, p. 8 lines 7-10; 18-24. *Note:* See testimony updates in Mr. Bilger's written statement, Appendix B.

²³⁴ Buher Testimony, Transcript III, p. 28, lines 33-35 (This technology is different, its' trickier. Its' moving faster. Schools weren't as prepared as they have been at other inflection points when technology has been adopted).

²³⁵ Buher Testimony, Transcript III, p. 17 lines 10-20 (there is not yet enough evidence of effectiveness for districts to pay for AI-powered products and tools at scale, particularly at the expense of personnel or high-quality instructional materials, mental and social health, social emotional health services, high dose tutoring, and out of school time programing with demonstrated evidence of impact).

²³⁶ Heidari Testimony, Transcript I, p. 15 line 36 – p.16 line 5.

²³⁷ Dias Testimony, Transcript III, p. 12 lines 2-17.

²³⁸ Dias Testimony, Transcript III, p. 10 lines 31-36.

²³⁹ Dias Testimony, Transcript III, p. 11 lines 34-40 (optimizing people's ideas instead of optimizing for efficiency); Reference to Ruja Benjamin at https://www.youtube.com/watch?v=QO3nY_u6hos.

²⁴⁰ Buher Testimony, Transcript III, p. 25 line 38 – p. 26 line 4.

civil rights.²⁴¹ Educator and teaching consultant Michelle King cautioned that before any strategic initiative can take place, schools must have “a vision of what it looks like if we’re winning or doing well.”²⁴² She cautioned, “if we fall into the trap of speediness, we might create the conditions for worse problems.”²⁴³ Ms. King described education not as a “separate entity from society,” but as the very foundation of society itself.²⁴⁴ More important than student “success,” she argued, is producing people who can live with each other, heal from collective trauma, and build community.²⁴⁵

Recommendations

Among their duties, advisory committees of the Commission are authorized to advise the Agency (1) concerning matters related to discrimination or a denial of equal protection of the laws under the Constitution and the effect of the laws and policies of the Federal Government with respect to equal protection of the laws, and (2) upon matters of mutual concern in the preparation of reports of the Commission to the President and the Congress.²⁴⁶ In keeping with these responsibilities, and given the testimony heard on this topic, the Committee submits the following recommendations to the Commission:

1. The U.S. Commission on Civil Rights should:
 - a. Call on government and industry to regulate and manage the development of AI tools and products so that developers are accountable for measurement of their efficacy and discriminatory consequences.
 - b. Issue a statement acknowledging the potential long-term impact of these technologies on children, providing a basis for conducting a national study regarding the use of AI-based tools and programs in K-12 education and the related civil rights impact with the aim of identifying and minimizing the adverse implications for students’ civil rights.
2. The U.S. Commission on Civil Rights should issue the following recommendations to **Pennsylvania Governor Josh Shapiro**:
 - a. Create a state-level task force, with representation from the Attorney General of Pennsylvania; the Commonwealth Departments of Education and Human Services; and the Pennsylvania Human Relations Commission; school administrators; teachers; and parents, to support school districts in the development, implementation, and monitoring of procurement standards with AI-specific privacy, data security, and equity benchmarks, and to take other steps to empower school districts to safely use and control AI tools.

²⁴¹ Turner Lee Testimony, Transcript II, p. 11 line 41 – p. 12 line 9.

²⁴² King Testimony, Transcript IV, p. 28 lines 15-25.

²⁴³ King Testimony, Transcript IV, p. 28 lines 15-25.

²⁴⁴ King Testimony, Transcript IV, p. 9 lines 27-36.

²⁴⁵ King Testimony, Transcript IV, p. 11 line 32 – p. 12 line 8.

²⁴⁶ 45 C.F.R. § 703.2.

- b. Advocate to appropriate agencies that the Commonwealth's settlement of any case resolving civil rights violations involving the use of AI in K-12 education should include a public relief provision allowing school districts to offset the cost of implementing AI services and security measures.
3. The U.S. Commission on Civil Rights should issue the following recommendations to the **Pennsylvania Department of Education**:
- a. Encourage local school boards to create advisory committees to increase public awareness and knowledge of the impacts, uses, and potential harms of AI tools on K-12 students, including ensuring the participation of students with disabilities, racial and ethnic minorities, English language learners, and students of low socio-economic status.
 - b. Establish benchmarks on safety, privacy, data security, and equity which must be met before technology companies are eligible to sell to schools.
 - c. Create a program through which developers of AI curricula and tools for K-12 education can certify that they have incorporated best practices in their design, development, and deployment. Certification should be a prerequisite to receiving government funds.
 - d. Create a state-wide repository of procurement information and vendor performance reviews, available to all schools and districts as they vet AI providers and their compliance with established benchmarks, to ensure under-resourced communities are not shouldering disproportionately more risk.
 - e. Establish procurement policies that require products to be designed and tested specifically in educational settings, including rigorous evaluation based on contemporary data. Require that any claims made about the systems match the evaluations done on them.
 - f. Establish regional AI purchasing consortia to negotiate the lowest cost and enforce acceptable procurement terms, so that smaller districts are not disadvantaged by their lesser bargaining power.
 - g. Establish auditing standards to assess whether vendors meet standard benchmarks, so that schools without the capacity to assess the products have support in doing so.
 - h. Provide districts with template procurement contracts that include effective remedies for breach of contract.
4. The U.S. Commission on Civil Rights should issue the following recommendation to the **U.S. Senate and House of Representatives**:
- a. The U.S. Congress should direct its committees having oversight for finance, education, commerce and justice to identify and explore tax and other incentives for private industry to conduct research into processes and mechanisms to address privacy and

civil rights concerns in the development of AI tools and products, and to take other steps aimed at mitigating the potential adverse impact on children's civil rights.

5. The U.S. Commission on Civil Rights should issue the following recommendations to the **U.S. Department of Education**:

- a. Encourage states to enable local school boards to create advisory committees to increase public knowledge and awareness of the impacts, uses, and potential harms of AI tools on K-12 students, including ensuring the participation of students with disabilities, racial and ethnic minorities, English language learners, and students of low socio-economic status.
- b. Issue guidance to recipients of federal education funding regarding the applicability of existing civil rights legislation to the use of AI in K-12 educational settings, including recommended steps for recipients to take when procuring, using, evaluating, and monitoring AI-related tools to avoid violations of those laws.
- c. Establish benchmarks on safety, privacy, data security, and equity that must be met before technology companies are eligible to sell to schools.
- d. Create a federal repository of state procurement information and vendor performance reviews, available to all schools and districts as they vet AI providers and their compliance with established benchmarks, to ensure under-resourced communities are not shouldering disproportionately more risk.
- e. Establish procurement policies that require products to be designed and tested specifically in educational settings, including rigorous evaluation based on contemporary data. Require that any claims made about the systems match the evaluations done on them.
- f. Develop models and incentivize the establishment of regional AI purchasing consortia to negotiate the lowest cost and enforce acceptable procurement terms so that smaller districts are not disadvantaged by their lesser bargaining power.
- g. Establish standards for third-party audit providers to assess whether vendors meet standard benchmarks, so that schools without the capacity to assess the products have support in doing so.
- h. Provide template contracts that include a right to pursue legal action if a company does not continue to meet established benchmarks.
- i. Close the FERPA loophole allowing ed-tech companies to be deemed "school officials" who have enhanced access to student records which could lead to usage that could propagate disparate outcomes
- j. Require that recipients of grants issued to states plan and demonstrate their capacity to mitigate potential AI risks and harms K-12 students as part of the award application process.

6. The U.S. Commission on Civil Rights should issue the following recommendation **to U.S. Department of Justice**:
 - a. Direct the Office of Juvenile Justice and Delinquency Prevention to collect data regarding the use of AI surveillance, reporting, investigations, prosecution, sentencing, detainment, and incarceration of K-12 students, and the disclosure of such usage to students affected thereby.

Appendix

A. Briefing materials²⁴⁷

- a. Transcript
- b. Agenda
- c. Minutes
- d. Panelist Presentations (PPT)
- e. Other records

B. Written Testimony²⁴⁸

- a. Luke Bilger, School District of Philadelphia
- b. Khalid Mumin, Pennsylvania Secretary of Education
- c. Kristin Woelfel, Center for Democracy & Technology

²⁴⁷ Briefing materials available at: <https://usccr.box.com/s/8khpwuytdrttohpmmy42in72zih5pkw8>.

²⁴⁸ Written testimony available at: <https://usccr.box.com/s/bx2azcijynogzfkexcc76ugxnirz9cst>.

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United States Commission on Civil Rights**



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