EdTech Threats to Student Privacy and Equity in the Age of AI

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The Center for Democracy & Technology (CDT) is the leading nonpartisan, nonprofit organization fighting to advance civil rights and civil liberties in the digital age. We shape technology policy, governance, and design with a focus on equity and democratic values. Established in 1994, CDT has been a trusted advocate for digital rights since the earliest days of the internet. The organization is headquartered in Washington, D.C. and has a Europe Office in Brussels, Belgium.

As governments expand their use of technology and data, it is critical that they do so in ways that affirm individual privacy, respect civil rights, foster inclusive participatory systems, promote transparent and accountable oversight, and advance just social structures within the broader community. CDT’s Equity in Civic Technology Project furthers these goals by providing balanced advocacy that promotes the responsible use of data and technology while protecting the privacy and civil rights of individuals. We engage with these issues from both technical and policyminded perspectives, creating solutions-oriented policy resources and actionable technical guidance.

Endnotes in this report include original links as well as links archived and shortened by the Perma.cc service. The Perma.cc links also contain information on the date of retrieval and archive.
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Executive Summary

In schools across the country, the use of educational data and technology (edtech) remains nearly ubiquitous. In addition to supporting instruction, schools have used edtech to respond to the painfully present safety threats that they face on a daily basis — from gun violence to the youth mental health crisis. However, long-standing technologies such as content filtering and blocking and student activity monitoring pose well-documented privacy and equity risks to students. Nonetheless, schools continue to deploy these technologies on a mass scale. And with generative artificial intelligence (AI) becoming rapidly integrated into the education space, many new risks are being introduced to students.

The Center for Democracy & Technology (CDT) conducted surveys of high school students and middle and high school parents and teachers from July to August 2023 to understand how edtech used by schools is tangibly affecting those it claims to serve. The research focuses on student privacy concerns and schools’ capacity to address them; emerging uses of AI-driven technology such as predictive analytics; and deep dives into content filtering and blocking, student activity monitoring, and generative AI, encompassing both well-established and emerging technology. These surveys build on CDT’s previous research, which revealed that student activity monitoring is adversely affecting all students, especially historically marginalized and under-resourced students.

Whether old or new, technologies deployed across schools have negative impacts on students, and schools are out of step in addressing rising concerns:
Schools are not adequately engaging and supporting students, parents, and teachers in addressing concerns about school data and technology practices: Students, parents, and teachers report a lack of guidance, information, and training on privacy, student activity monitoring, content filtering and blocking, and generative AI. They want more support from their schools and to be involved in decisions about whether and how these technologies are used.

Content blocking and filtering is stifling student learning and growth: Students and teachers agree that this technology is a barrier to learning, often making it hard to complete school assignments and access useful information.

Student activity monitoring continues to harm many of the students it claims to help: Disciplinary actions, outing of students, and initiating of law enforcement contact are still regular outcomes of the use of this technology, even though it is procured by schools to help keep students safe.

Schools have provided little guidance about generative AI, leaving students, parents, and teachers in the dark: Students, parents, and teachers report a collective state of confusion about policies and procedures related to responsible generative AI use in the classroom. Meanwhile, students are getting in trouble for the use of this technology.

Even more disheartening is that in all of these areas, at-risk communities of students are still experiencing disproportionate negative impacts of these old and new technologies:

Schools are filtering and blocking LGBTQ+ and race-related content, with Title I and licensed special education teachers more likely to report such practices: Although filtering and blocking technology was originally intended to primarily target explicit adult content, more school administrators are using it to restrict access to other content they think is inappropriate, including LGBTQ+ and race-related content. Title I and licensed special education teachers are more likely to report this occurrence. In key respects, this finding parallels the broader trend in education of removing books and curricular content on these subjects.
- **Student activity monitoring is disproportionately harming students with disabilities and LGBTQ+ students:** Students with individualized education programs (IEPs) and/or 504 plans as well as licensed special education teachers report higher rates of discipline arising from student activity monitoring. LGBTQ+ students are also still being disciplined more than their peers and outed without their consent.

- **Title I and licensed special education teachers report higher rates of students receiving disciplinary actions for using or being accused of using generative AI:** Despite having little guidance from schools on generative AI use, Title I teachers, licensed special education teachers, and parents of students with IEPs and/or 504 plans report higher rates of their student(s) getting in trouble as compared to peers.

Previous CDT research and this year’s findings continue to document the risks and harms of edtech on all students but especially on vulnerable communities. As uses of edtech, particularly AI-driven technology, continue to expand, education leaders across the country should focus not only on privacy concerns but also on identifying and preventing discrimination. Luckily, they already have the tools to do so with well-established civil rights laws that apply to discriminatory uses of technology.¹
Introduction

Schools across the country continue to use edtech, new and old, on a mass scale, with the intended purposes of improving instruction and protecting students from threats such as school shootings and the effects of the youth mental health crisis. But, just as previous Center for Democracy & Technology (CDT) research revealed, students are often experiencing more harm than good. What is more devastating is that already historically marginalized and under-resourced students are suffering disproportionate negative impacts. This year, the findings of CDT’s research illustrate a consistent theme for one community in particular: Students with individualized education programs (IEPs) and/or 504 plans, and the adults who support them, are more likely to experience and express concern about harmful effects from the use of technology.

CDT surveyed parents of students in grades 6–12, students in grades 9–12, and teachers of grades 6–12 to understand their opinions and experiences with monitoring and content filtering and blocking technologies, in addition to the emerging technology of generative artificial intelligence (AI). This research was conducted in the months following the explosive introduction of generative AI to the public, which concretely highlighted both the promises and potential detrimental consequences of this and other technologies for education leaders, parents, and students.\(^a\)

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\(^a\) As with all data throughout this report, the statistics reflect student, parent, and teacher responses based on their experiences during the 2022–23 school year. As schools begin the 2023–24 school year, some have undoubtedly enacted new policies and practices.
Key terms used in this report

**Content filtering and blocking:** Content filtering and blocking uses software to screen or restrict access to objectionable material, including websites and mobile apps. This filtering or blocking can occur on school-issued devices, on a student’s own devices while connected to school networks, and/or while logged in to a school account.

**Edtech:** This report uses the term *edtech* broadly to mean all data and technology that is used in the classroom and with which students interact, regardless of whether it was designed with the education sector in mind. For example, generative AI applications that are broadly designed for consumers but used by students and teachers fall within this report’s definition of edtech.

**Generative AI:** Generative AI systems use machine learning to produce new content (e.g., text or images) based on large amounts of data that already exist. Generative AI reviews enormous amounts of text/information for systems that will produce text responses or hundreds of millions of images for systems that will produce new images in response to prompts.

**Licensed special education teachers:** Licensed special education teachers are certified to work with and meet the needs of students with varying disabilities.

**Outed:** Outed refers to when a student’s gender identity or sexual orientation is shared without their consent or approval.

**Parent:** This report uses the term *parents* broadly to encompass all primary caregivers, including but not limited to biological parents, step-parents, foster parents, grandparents, legal guardians, or other blood relatives.

**Student activity monitoring:** Student activity monitoring is when technology is used to track students’ online activity, such as the date/time a student logs in to the system, the contents of students’ screens or emails, and/or student internet searches. Student activity monitoring may also enable real-time visibility into what students are looking at on their computers and can occur within a learning management system or through a separate software program.

**Student with an IEP and/or a 504 plan:** Students with an individualized education program (IEP) have a disability that necessitates specially designed instruction that is documented in an IEP and reviewed at least annually. Students with a 504 plan also have a disability and require accommodations to help the child participate in school to the same extent as their peers without a disability. Students with disabilities typically have either an IEP or a 504 plan but not both, although it is possible.

**Title I teachers:** Title I teachers are teachers who work in schools that are designated as Title I, meaning the school receives additional funding because it serves high numbers or high percentages of children from low-income families.
Student Privacy and EdTech Landscape From 30,000 Feet

Schools are using an increasingly broad array of technologies in an effort to supervise students online, maintain campus safety, shape educational experiences, and meet other student needs. These tools directly affect students’ lives, promising learning and safety benefits but also posing serious privacy risks and interfering with student learning and growth.

At the same time (and perhaps as a result), student and parent concerns about privacy are increasing, while the overall percentage of teachers receiving training from their schools on these issues has stagnated. Schools are falling behind in fulfilling desires for engagement and guidance, and in some cases they are moving in the wrong direction, illustrating how schools are out of sync with students, parents, and the teachers who work with them.

PARENT AND STUDENT CONCERNS GO UP WHILE ENGAGEMENT AND INFORMATION GO DOWN

Student and parent concerns about school data practices are high and increasing. **Sixty-two percent** of students express concern about their school’s data privacy and security practices, a **5 percentage point** increase from the 2021–22 school year. Parents are even more concerned, with **73 percent** expressing concerns about these topics, a **12 percentage point** increase from 2021–22.

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b The increase in students expressing concern about “the privacy and security of your data and information that may be collected and stored by your high school” is directional and not statistically significant.
Contributing to these concerns could be the rise of cyberattacks in schools. One in five parents report having been notified that their child’s school experienced a data breach. Eighty-six percent of parents who have received notice of a data breach express concern about school privacy and security, compared to 70 percent of parents who have not. These results suggest that the prevalence of data breaches likely plays a role in increasing overall parent privacy concern.

Levels of concern about student privacy and security are high across all demographic groups, but some student and parent sub-populations are disproportionately likely to express concern.

Students who have IEPs and/or 504 plans and their parents are notable examples of groups that express disproportionate rates of student data privacy and security concerns...

| Students with an IEP and/or a 504 plan | 71% |
| Students without an IEP or a 504 plan | 56% |
| Parents of students with an IEP and/or a 504 plan | 79% |
| Parents of students without an IEP or a 504 plan | 69% |

% of respondents who report being concerned about the privacy and security of their (or their child’s) data and information collected and stored by their school

In light of these concerns, parents and students alike want more outreach and engagement from their schools on technology-related decisions. In the case of parents, 95 percent believe that engaging them in school decisions about privacy and security is important; however, only 31 percent report that their school has solicited their input on how to responsibly use student data and technology, an 8 percentage point drop since the 2021–22 school year.

Students, on the other hand, report some improvements in school efforts to consult them for feedback, although the overall percentage of students being asked for their feedback remains low. Thirty-eight percent of students report their school solicits input from them on technology decisions, a 15 percentage point increase from the 2021–22 school year.
Nevertheless, schools are still falling short of meeting students’ demands for technology guidance and support ...

% of students who report that they would find learning about this topic helpful and who report that they have actually received support or guidance from their school on this topic

### TEACHERS’ CONCERNS DECREASE WHILE STUDENT PRIVACY TRAINING STAGNATES

Teachers play a critical role in ensuring responsible school data and technology use, but similar themes emerge regarding lack of adequate school support as discussed in the previous section. The percentage of teachers who report that they worry about student data privacy and security actually dropped 5 percentage points from 42 percent in 2021–22 to 37 percent, the lowest level of concern they have reported since 2021.

Certain teacher groups — in particular licensed special education teachers and teachers at Title I schools — are more likely to express concern about student data privacy and security ...

% of teachers who report worrying about the privacy and security of their students’ data and information that may be collected and stored by their school
Teacher responses reveal gaps in the support they receive from their schools. **One in five** teachers do not know if their school has a technology plan that addresses student privacy, and nearly **one-third** of teachers have not received formal student privacy training from their school, a proportion that remains unchanged from the 2021–22 school year.

**Special education community leads the way on student privacy**

Although students with IEPs and/or 504 plans face disproportionate consequences due to the use of the technology, as discussed in this report, these students and the adults who support them also stand out as having higher engagement and capacity around student privacy and equity issues. School leaders would benefit from looking to the educators, parents, and students in this community for promising practices that could be extended to the rest of the school population.

**INCREASED ENGAGEMENT**

Licensed special education teachers are more likely to not only proactively discuss student privacy with their students but also be asked by parents and students about student privacy, demonstrating that they have more two-way conversations about these topics than their peers ...

<table>
<thead>
<tr>
<th></th>
<th>All teachers</th>
<th>Licensed special education teachers</th>
<th>Teachers not licensed in special education</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discuss student data or information privacy with your students</td>
<td>78%</td>
<td>88%</td>
<td>69%</td>
</tr>
<tr>
<td>Have been asked by students or their parents about the student data or information privacy</td>
<td>44%</td>
<td>65%</td>
<td>27%</td>
</tr>
</tbody>
</table>

% of respondents who report that they discussed student data or information privacy with their students or have been asked by students or their parents about the student’s data or information privacy

While **58 percent** of students with IEPs and/or 504 plans report being asked for input by their school about how to securely and responsibly use student data and technology, **only 22 percent** of students without IEPs or 504 plans report the same. Similarly, **48 percent** of parents of students with IEPs and/or 504 plans report that their school has asked for their input on the same issues, which is more than twice the rate of parents whose child does not have an IEP or a 504 plan (**22 percent**).
**INCREASED CAPACITY**

In addition to increased engagement, students with IEPs and/or 504 plans and the adults who support them report greater knowledge about student privacy when compared to others. For example, licensed special education teachers are more likely to receive substantive training on student privacy (82 percent compared to 62 percent of teachers who are not licensed in special education), and they are more likely to report that their school has a technology plan in place that addresses student privacy (84 percent compared to 69 percent).

Beyond educators, students with IEPs and/or 504 plans and their parents report that students are receiving more guidance than their peers on a number of student privacy and equity issues...

<table>
<thead>
<tr>
<th>Task Description</th>
<th>All students (%)</th>
<th>All parents (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Information or guidance about the school's process for dealing with students who break technology rules or policies</td>
<td>72</td>
<td>78</td>
</tr>
<tr>
<td>How to minimize potential negative effects of technology use, such as having a negative self-image, access to harmful content (e.g., violent or sexual material), or cyberbullying</td>
<td>67</td>
<td>66</td>
</tr>
<tr>
<td>How to spot false or inaccurate information online (e.g., misinformation, disinformation)</td>
<td>71</td>
<td>77</td>
</tr>
<tr>
<td>How to create strong passwords and keep them secure/ private</td>
<td>59</td>
<td>66</td>
</tr>
</tbody>
</table>

% of respondents who report that they and/or their child (in the case of parents) received guidance or support on this issue

Finally, parents of students with IEPs and/or 504 plans report that they are more familiar with the school’s policies on privacy (78 percent compared to 63 percent of parents of students without an IEP or a 504 plan) and their legal rights as parents regarding student privacy (72 percent compared to 54 percent).
As student and parent concerns rise and teacher training stalls, schools are implementing an ever-growing range of tools, many of which rely on AI and are used in the name of keeping students safe and on track. Additionally, 96 percent of teachers say that their school will continue to provide devices in the 2023–24 school year, with 85 percent of teachers reporting that their school will provide or maintain devices for all students.

Many of these technologies carry serious risks of irresponsible use — risks related to predictive analytics, remote proctoring, facial recognition technology, law enforcement data sharing, and student location tracking are all well documented.

Perhaps unsurprisingly, most students and parents express concerns about many of these technologies, but teachers often report that these tools are already in use by their school. Take the way technologies are used for academic and classroom management reasons for example …

| Uses student data to predict whether individual students are at risk of dropping out or are adequately prepared for college | 60% | 59% |
| Tracks students’ physical location through their phones, school-provided devices like laptops, or digital “hall passes” when they leave the classroom | 71% | 74% |
| Uses remote proctoring software to determine if a student is cheating on an exam | 68% | 69% |
Another striking finding is that teachers in Title I schools and licensed special education teachers are significantly more likely than other teachers to report that these technologies are in use. Take the way technologies are used for school safety for example ...

<table>
<thead>
<tr>
<th>Uses cameras with facial recognition technology to check who should be allowed to enter a school building or identify someone who should not be there</th>
<th>All teachers 33%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Title I teachers</td>
<td>18%</td>
</tr>
<tr>
<td>Non-Title I teachers</td>
<td>26%</td>
</tr>
<tr>
<td>Licensed special education teachers</td>
<td>39%</td>
</tr>
<tr>
<td>Teachers not licensed in special education</td>
<td>51%</td>
</tr>
</tbody>
</table>

% of teachers who report their school or school district is using this technology

<table>
<thead>
<tr>
<th>Shares student data such as grades, attendance, and discipline information with law enforcement</th>
<th>All teachers 38%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Title I teachers</td>
<td>24%</td>
</tr>
<tr>
<td>Non-Title I teachers</td>
<td>21%</td>
</tr>
<tr>
<td>Licensed special education teachers</td>
<td>48%</td>
</tr>
<tr>
<td>Teachers not licensed in special education</td>
<td>57%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Monitors what students post publicly on their personal social media accounts</th>
<th>All teachers 37%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Title I teachers</td>
<td>28%</td>
</tr>
<tr>
<td>Non-Title I teachers</td>
<td>28%</td>
</tr>
<tr>
<td>Licensed special education teachers</td>
<td>47%</td>
</tr>
<tr>
<td>Teachers not licensed in special education</td>
<td>47%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Analyzes student data to predict which individual students would be more likely to commit a crime, an act of violence, or an act of self-harm</th>
<th>All teachers 36%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Title I teachers</td>
<td>21%</td>
</tr>
<tr>
<td>Non-Title I teachers</td>
<td>28%</td>
</tr>
<tr>
<td>Licensed special education teachers</td>
<td>45%</td>
</tr>
<tr>
<td>Teachers not licensed in special education</td>
<td>55%</td>
</tr>
</tbody>
</table>

Students with IEPs and/or 504 plans are more likely than other students to express concern about several of these technologies, including remote proctoring software, software that enables law enforcement data sharing, AI-enabled cameras, and predictive analytics. In addition, 74 percent of Black parents express concern about law enforcement data sharing compared to 63 percent of white parents.
From Web Filters to Generative AI: EdTech Through the Years

This section focuses on three notable types of technology used in schools: content filtering and blocking, student activity monitoring, and generative AI. Each of these technologies introduces risks of irresponsible use, which schools can play an important role in mitigating. The discussion of each technology is organized around three critical questions:

- How is this technology currently being used in schools?
- What is the capacity of teachers, parents, and students to use it responsibly?
- What are the risks to student privacy and equity?

Long-standing, nearly ubiquitous technology such as content filtering and blocking and student activity monitoring, as well as emerging technologies such as generative AI, are prominent facets of students’ educational experiences, as reported by teachers, parents, and students ...
CONTENT FILTERING AND BLOCKING:
Long-standing technology is creating new problems for students and teachers

Many schools have used software to filter and block web content since 2001, when the Children’s Internet Protection Act (CIPA) was enacted. This law requires schools and libraries that receive federal E-Rate funding to restrict students’ access to “pictures that are: (a) obscene; (b) child pornography; or (c) harmful to minors.” As discussed in the next section, there is agreement that schools should restrict access to explicit adult content; however, parents and teachers find themselves out of the loop. Schools are applying filtering and blocking in ways that interfere with learning, extend beyond what is legally required, and disproportionately affect vulnerable students.

CURRENT USAGE

Because CIPA compliance is required as a condition of receiving federal E-Rate funding, it comes as no surprise that nearly 100 percent of teachers report that their school uses some form of filtering and blocking software (with only 1 percent of teachers reporting that their school does not filter or block content and another 1 percent not sure). It is also foreseeable that the filtering and blocking is concentrated on school-issued devices.

However, most teachers (53 percent) report that their school deploys filtering and blocking software on personal devices. When asked how schools filter and block content on students’ personal devices, 41 percent of all teachers report that filtering and blocking occur on the school’s network, while 35 percent report that filtering and blocking also occur while a student is logged in to a school account.
In terms of the content that is filtered and blocked, support among parents and students is highest for explicit online content (e.g., adult content/pornography), and teachers report that it is the most common material that is filtered or blocked...

<table>
<thead>
<tr>
<th>Content Type</th>
<th>Parents</th>
<th>Students</th>
<th>Teachers Reporting School Filters or Blocks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adult explicit content</td>
<td>80%</td>
<td>78%</td>
<td>78% of teachers report their school filters or blocks this</td>
</tr>
<tr>
<td>Violent content</td>
<td>61%</td>
<td>41%</td>
<td>58% of teachers report their school filters or blocks this</td>
</tr>
<tr>
<td>Academic cheating</td>
<td>63%</td>
<td>41%</td>
<td>52% of teachers report their school filters or blocks this</td>
</tr>
</tbody>
</table>

% of parents and students who think schools should filter or block this type of content

**CURRENT CAPACITY**

Although filtering and blocking technology is seemingly used in almost every school, only **63 percent** of teachers whose school uses this software report receiving substantive training on it. Teachers in Title I schools as well as licensed special education teachers are more likely to report receiving training on filtering and blocking (**71 percent** versus **51 percent** of non-Title I teachers and **78 percent** compared to **50 percent** of teachers who are not licensed in special education).
Therefore, Title I and licensed special education teachers whose school uses filtering and blocking software are more likely to receive guidance on important topics related to this technology, including how to respond when students potentially break school rules …

Even though teachers are dealing directly with students (and the potential implications of filtering and blocking practices), schools are not proactively seeking their input. Just over half (56 percent) of teachers whose school uses this software have been asked for their input on what content should be filtered or blocked. Similar to the increased levels of training described previously, Title I and licensed special education teachers have more likely been asked for their input (65 percent versus 44 percent of non-Title I teachers and 76 percent compared to 39 percent of teachers who are not licensed in special education).

Finally, parents seem to be out of step with teachers and students when it comes to filtering and blocking practices. Although the vast majority of teachers and students report that their school filters or blocks content (98 percent and 93 percent, respectively), only 81 percent of parents report that their school uses some form of content filtering and blocking software, indicating potentially lower levels of parent awareness.
Technology poses barriers to learning

The most commonly cited risk of filtering and blocking is how the use of this technology actually makes learning more difficult. For example, **71 percent** of students whose school uses filtering and blocking software agree with the statement, “It is sometimes hard to complete school assignments because I get filtered or blocked from being able to get all of the online information I need.”

Although fewer teachers agree with this statement, most are in alignment with students: **57 percent** of teachers agree that filtering and blocking can make completing school assignments hard. Title I and licensed special education teachers are even more likely to agree (**62 percent** compared to **50 percent** of non-Title I teachers and **64 percent** compared to **51 percent** of teachers who are not licensed in special education). Approximately half of teachers whose school uses this technology agree that filtering and blocking has meant that “students are filtered or blocked from content that will help them learn as a student” or “grow as a person.”

Finally, LGBTQ+ students are more likely than their peers to report these sentiments ...

<table>
<thead>
<tr>
<th>Statement</th>
<th>Please indicate whether you agree or disagree (1 = Strongly disagree; 5 = Strongly agree)</th>
</tr>
</thead>
<tbody>
<tr>
<td>I have been filtered or blocked from content that I personally think should not be blocked from students</td>
<td>81%</td>
</tr>
<tr>
<td>It is sometimes hard to complete school assignments because I get filtered or blocked from being able to get all of the online information I need</td>
<td>79%</td>
</tr>
</tbody>
</table>

% of students whose school uses filtering or blocking software who agree with this statement
Teachers report that schools block LGBTQ+ and race-related content, with Title I and licensed special education teachers reporting more extensive filtering and blocking than do their counterparts.

A concern about filtering and blocking technology in schools is that it will extend beyond what might be legally required in CIPA and expand based on value-laden judgments, with little input from parents and students. That concern is justified. This type of scope creep can amount to what is effectively a digital book ban in which access to content is restricted, with little visibility and input from parents.

Approximately one-third of teachers agree that content associated with or about LGBTQ+ students and students of color is more likely to be filtered or blocked, and Title I and licensed special education teachers are more likely to concur...

<table>
<thead>
<tr>
<th>Statement</th>
<th>All teachers</th>
<th>Title I teachers</th>
<th>Non-Title I teachers</th>
<th>Licensed special education teachers</th>
<th>Teachers not licensed in special education</th>
</tr>
</thead>
<tbody>
<tr>
<td>I feel like content that’s associated with or about LGBTQ+ students is</td>
<td>44%</td>
<td>47%</td>
<td>42%</td>
<td>47%</td>
<td>47%</td>
</tr>
<tr>
<td>more likely to be filtered or blocked by my school</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I feel like content that’s associated with or about students of color</td>
<td>32%</td>
<td>29%</td>
<td>30%</td>
<td>28%</td>
<td>28%</td>
</tr>
<tr>
<td>(e.g., Black or Hispanic students) is more likely to be filtered or</td>
<td>40%</td>
<td>40%</td>
<td>42%</td>
<td>40%</td>
<td>40%</td>
</tr>
<tr>
<td>blocked by my school</td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

What does filtering and blocking mean for students?

What started as a legal requirement tied to federal funding, focused on preventing children’s exposure to harmful online content, appears to have expanded and is actually preventing students from learning or even growing as people. Additionally, parents overall are not engaged on these decisions, as only 27 percent report that their school has asked for their input on how or what content the school monitors, filters, or blocks. Schools that deploy unclear and subjective restrictions to online content — in particular content related to LGBTQ+ and race-related information — risk enacting a digital book ban.
STUDENT ACTIVITY MONITORING: COVID-era technology continues to persist and harm students

The use of student activity monitoring software rapidly expanded during remote learning and has maintained a significant presence in students’ lives. Unfortunately, it continues to harm the students it is intended to help. These harms range from disciplinary actions to outing students without their consent and initiating law enforcement contact. All of these negative impacts could be contributing to decreased support among parents and more discomfort among students with the continued use of this technology. Similar to the findings about filtering and blocking technology, students with disabilities and LGBTQ+ students are more likely to experience negative consequences.

CURRENT USAGE

The use of student activity monitoring software remains high and unchanged since the 2021–22 school year, with 88 percent of teachers reporting that their school uses this software. However, more teachers are reporting that their school conducts monitoring on students’ personal devices, with 40 percent of teachers reporting that their school monitors students’ online activities on their personal devices. Teachers report that this monitoring happens when a student is logged in to a school account (27 percent) and/or when a student uses the school’s network (28 percent).

Perhaps unsurprisingly, students with IEPs and/or 504 plans are more likely than their peers to report that their online activities are monitored (89 percent versus 78 percent, respectively).

Thirty-eight percent of teachers report that their school conducts monitoring outside of school hours, a 9 percentage point decrease from the 2021–22 school year. And 39 percent of teachers at schools that monitor outside of school hours report that law enforcement receives alerts outside of school hours — no change from 2021–22.
In terms of how student activity monitoring software is used, teachers report a decrease in uses of this technology for teaching and learning purposes and an increase in all other uses ...

<table>
<thead>
<tr>
<th>Activity</th>
<th>2021–22</th>
<th>2022–23</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tracking productivity/making sure students are staying on task</td>
<td>43%</td>
<td>52%</td>
</tr>
<tr>
<td>Determining if a student is in need of urgent intervention to keep others safe (e.g., acts/threats of violence, school shooting)</td>
<td>57%</td>
<td>45%</td>
</tr>
<tr>
<td>Determining if a student has violated nonacademic disciplinary policy (e.g., cyberbullying, bullying)</td>
<td>59%</td>
<td>48%</td>
</tr>
<tr>
<td>Determining if a student has violated academic disciplinary policy (e.g., cheating, academic integrity issues)</td>
<td>61%</td>
<td>53%</td>
</tr>
<tr>
<td>Flagging potential destructive or illegal behavior by students before it happens (e.g., destruction of property, stealing)</td>
<td>50%</td>
<td>44%</td>
</tr>
<tr>
<td>Determining if a student is in a possible mental health crisis or an ongoing mental health event (e.g., student at risk of self-harm or suicide, eating disorder)</td>
<td>52%</td>
<td>47%</td>
</tr>
</tbody>
</table>

% of teachers whose school uses student activity monitoring who report that their school or school district engages this technology in this way

Finally, a newer feature of student activity monitoring software is making this information available to parents, in addition to school administrators. Fifty-one percent of teachers whose school uses this technology report that parents can see results from student activity monitoring.
Of the teachers whose school uses student activity monitoring software, 69 percent report that they have received substantive training on this technology, and 57 percent have been asked for their input on what student content is monitored.

Similar to the findings about filtering and blocking technology, Title I and licensed special education teachers whose school uses this technology are more likely to receive substantive training on it (76 percent compared to 57 percent of non-Title I teachers and 81 percent compared to 59 percent of teachers who are not licensed in special education).

**Title I and licensed special education teachers whose school uses student activity monitoring software are also more likely to receive guidance on important topics related to this technology ...**

<table>
<thead>
<tr>
<th>Topic</th>
<th>All teachers</th>
<th>Title I teachers</th>
<th>Non-Title I teachers</th>
<th>Licensed special education teachers</th>
<th>Teachers not licensed in special education</th>
</tr>
</thead>
<tbody>
<tr>
<td>What types of online content are monitored by the school and why (e.g., student messages, documents, emails)</td>
<td>44%</td>
<td>50%</td>
<td>35%</td>
<td>35%</td>
<td>53%</td>
</tr>
<tr>
<td>Key words or topics for which student activity monitoring is scanning and alerting (e.g., phrases related to mental health, school shootings, or cyberbullying; key words like “bomb” or “gay”)</td>
<td>40%</td>
<td>48%</td>
<td>27%</td>
<td>29%</td>
<td>52%</td>
</tr>
<tr>
<td>How to protect student privacy when responding to alerts</td>
<td>37%</td>
<td>42%</td>
<td>30%</td>
<td>27%</td>
<td>47%</td>
</tr>
<tr>
<td>How to use the school’s student activity monitoring system or software</td>
<td>36%</td>
<td>41%</td>
<td>28%</td>
<td>27%</td>
<td>43%</td>
</tr>
</tbody>
</table>

% of teachers whose school uses student activity monitoring who report this topic being discussed or covered as part of their training about school policies and procedures regarding student activity monitoring.
Previous research raised questions about how schools respond to alerts generated by student activity monitoring, as their response processes and protocols were not well understood by parents. Similarly, 90 percent of teachers whose school uses this technology report that a response process is in place, although only 59 percent know what that process is.

Title I and licensed special education teachers are not only more likely to receive substantive training on student activity monitoring, but they are also more likely to be asked for their input on what content should be monitored. Sixty-three percent of Title I teachers and 71 percent of licensed special educators have been asked for their input on what student content is monitored, compared to 46 percent of non-Title I teachers and 44 percent of teachers who are not licensed in special education.

Finally, many parents are out of the loop as to the use of student activity monitoring in schools. Thirty percent report that they do not know if their school uses this technology, and only half of parents know what the school does with alerts outside of school hours.

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**RISKS TO STUDENTS**

**Support for and comfort with this technology are declining**

At the same time that the use of this technology is expanding to students’ personal devices and nonacademic uses, parents and students are showing signs of discontent. Parents’ support of student activity monitoring is declining: 55 percent of parents agree that “the benefits of student activity monitoring outweigh concerns about student privacy,” down 8 percentage points from the 2021–22 school year.

Similarly, students are less comfortable with student activity monitoring than they were a year ago: Although a majority (52 percent) report they are comfortable with student activity monitoring, this response marks an 11 percentage point decrease from the 2021–22 school year. Additionally, LGBTQ+ students are less comfortable with monitoring than their peers, with 38 percent reporting they are comfortable compared to 57 percent of non-LGBTQ+ students.
Technology is not working as intended

Previous research documented that school administrators are concerned about being transparent about student activity monitoring out of fear that students will circumvent the technology, rendering it less effective. Indeed, 4 in 10 students report that they use workarounds to subvert filtering, blocking, and monitoring technology. Students with IEPs and/or 504 plans are more likely than their peers to report that they use workarounds (55 percent compared to 29 percent of students who do not have an IEP or a 504 plan).

Another documented risk of this technology is that it might unintentionally scan and monitor students’ personal devices, regardless of whether the student is logged in to a school account or using the school’s network. This monitoring may occur when the student charges their personal device using a school-issued device. This practice is actually quite common: 70 percent of all students whose school uses monitoring technology report that they have charged their personal cell phone using a school-issued device. Among these students, 51 percent say that the software began syncing with and downloading content from their personal device.

Black and Hispanic students at schools that conduct student activity monitoring, as well as students with IEPs and/or 504 plans at schools that conduct student activity monitoring, are more likely to charge their personal device using a school device, potentially subjecting them to expanded (and unintended) monitoring ...
School response processes are opaque and unfair

As previously mentioned, the vast majority of teachers whose school uses this technology report that their school has a response plan to handle monitoring alerts, although most do not know what the process is. Among teachers and students whose school conducts student activity monitoring, 68 percent of teachers agree that their school responds to alerts in a fair way. However, students do not agree, as only 50 percent agree that their school responds to alerts in a fair way. LGBTQ+ students are even less likely to report that their schools’ monitoring process is fair: 36 percent agree that it is fair, compared to 55 percent of non-LGBTQ+ students. Meanwhile, approximately half of all parents say that their school has a process that has been shared with them for responding to student activity monitoring alerts.

“If you thought the process that you had was a good one, a really viable and a fair one, then you wouldn’t be concerned about sharing how the process works and who is involved in it.”

— Parent of a 9th grader

Students are continuing to be punished, outing without consent, and contacted by law enforcement, especially students with disabilities and LGBTQ+ students

Students continue to get in trouble through the use of technology that is billed as a tool to keep them safe. Sixty-seven percent of teachers whose school uses this technology report they know a student who has gotten in trouble. Fifty-two percent of teachers report that students got in trouble when the school’s student activity monitoring saw something the student was doing online, while 38 percent of teachers report that students got in trouble for how they reacted when they were confronted about something found through student activity monitoring. That finding aligns with research showing how student activity monitoring can catalyze negative student behavior.
Student activity monitoring continues to disproportionately target LGBTQ+ students, as 65 percent report that they or someone they know got in trouble due to student activity monitoring, compared to 56 percent of their peers.

**And LGBTQ+ students are more likely to report that they or someone they know has gotten in trouble for the alert itself as well as their reaction ...**

Moreover, disciplinary actions are also directed more toward the special education community. **Forty-four percent** of licensed special education teachers report that they know of a student who got in trouble for how the student responded to the alert, compared to 32 percent of teachers who are not licensed in special education.

In addition to disciplinary actions, monitoring technology continues to out students without their consent. **Nineteen percent** of all students whose school uses student activity monitoring report that they or someone they know has beenouted by this technology, a 6 percentage point increase since the 2021–22 school year. **Twenty-nine percent** of LGBTQ+ students report that they or someone they know has been outed because of this technology, a percentage that is consistent with 2021–22. Additionally, Title I and licensed special education teachers are more likely to report that they know a student who was outed because of this technology. **Eighteen percent** of Title I teachers and 21 percent of licensed special education teachers report knowledge of this student experience, compared to 4 percent of non-Title I teachers and 6 percent of teachers who are not licensed in special education.
So this whole experience kind of outed him and that’s like, for me that’s probably the most unfair thing. ... It was very traumatic. And I mean, for now he wants to stay at the school ... we’ll see what happens by the end of this year.

— Parent of a 9th grader

Finally, student activity monitoring continues to lead to law enforcement contact. **Thirty-eight percent** of teachers report that they know a student who was contacted by law enforcement because of alerts generated by student activity monitoring, a **6 percentage point** decrease from 2021–22.

**However, teachers in Title I schools and licensed special education teachers report higher law enforcement involvement in students’ lives due to student activity monitoring ...**

<table>
<thead>
<tr>
<th>Percentage of Teachers</th>
<th>Title I teachers</th>
<th>Non-Title I teachers</th>
<th>Licensed special education teachers</th>
<th>Teachers not licensed in special education</th>
</tr>
</thead>
<tbody>
<tr>
<td>A third party working with the school or district that is focused on public safety is responsible for following up (e.g., local police department, immigration enforcement, etc.) on alerts that happen outside of school hours</td>
<td>All teachers 39%</td>
<td>46%</td>
<td>24%</td>
<td>53%</td>
</tr>
<tr>
<td>Know of a student who was contacted by law enforcement (e.g., a police officer, immigration enforcement, or school resource officer) due to something the school’s student activity monitoring saw that student doing online</td>
<td>All teachers 38%</td>
<td>42%</td>
<td>34%</td>
<td>46%</td>
</tr>
</tbody>
</table>

% of teachers whose school conducts student activity monitoring who report this has happened
My son voiced his opinion on a site that wasn’t blocked about social injustices. The school and I were contacted by [law enforcement]. ... They showed up in a big black SUV, and it was very scary.

— Parent of an 11th grader

What does student activity monitoring mean for students?

The vast majority of teachers report that their school uses school activity monitoring technology, but it is expanding in important and often in unknown and unchecked ways — to students’ personal devices (both intentionally and unintentionally), as well as increasingly for nonacademic purposes. Furthermore, students and parents are souring on this technology, as students continue to be harmed through disciplinary actions, outing, and law enforcement contact and parents are left in the dark.

Most parents (57 percent) want a choice in whether their child is monitored by the school, with 19 percent wanting schools to get opt-in consent and 38 percent wanting the option to opt their child out of this monitoring. Even though nearly one-third of parents do not know if this technology is in use, just 6 percent say that their school should use filtering, blocking, and monitoring technology without telling parents.
GENERATIVE AI:
New technology with little guidance leaves parents and teachers in the dark and students in trouble

Since generative AI burst onto the scene in the middle of the 2022–23 school year, administrators and educators have witnessed its chaotic integration into the education space. Schools were caught off guard by the pace of this emerging technology’s adoption — most failed to create and share comprehensive policies and procedures. The result? Students, parents, and teachers report lacking clarity and guidance on generative AI. And even without such direction, students are being disciplined for using the technology.

CURRENT USAGE

Fifty-eight percent of students and approximately half of teachers report having used ChatGPT or other forms of generative AI. Only 23 percent of students report that they have used it for academic purposes, while just under half (45 percent) say they have used it for personal use. Interestingly, students with IEPs and/or 504 plans report higher generative AI usage — 72 percent say they have used this technology.

Thirty-two percent of teachers report that their school banned generative AI during the 2022–23 school year, while 16 percent do not know if the technology has been banned or not.

CURRENT CAPACITY

Across the board, students, parents, and teachers are unclear about policies and procedures surrounding the use of generative AI, pointing to a state of collective confusion about its place in the classroom.

To begin, 37 percent of teachers report that their school has no policy or they are not sure if there is a policy in place on generative AI. On top of this, 57 percent of teachers say that they have not received substantive training on generative AI.

In addition to not receiving guidance, most teachers are not being engaged by schools to get their thoughts and opinions on the technology’s use — only 40 percent of teachers say that their school has asked for their input on generative AI.
Without clear direction from school administration, both parents and students are also confused. Only 4 in 10 parents indicate that they or their child have received guidance from their school on how to responsibly use generative AI for schoolwork and within school rules, with similar numbers reported by students. Beyond guidance, many parents and students do not know if their school blocks the use of ChatGPT or other generative AI platforms at school — 59 percent of parents and 36 percent of students report that they are unsure.

**RISKS TO STUDENTS**

Students are being disciplined with no guiding policies

Half of teachers report that a student at their school has gotten in trouble or experienced negative consequences for using or being accused of using generative AI on a school assignment. And half of teachers also report that students who use school-issued devices are more likely to get in trouble for using the technology.

What is particularly alarming is that Title I and licensed special education teachers report higher rates of disciplinary actions for generative AI use among their students. Fifty-three percent of teachers at Title I schools and 58 percent of licensed special education teachers share that students at their school have gotten in trouble or experienced negative consequences for using or being accused of using generative AI. Parents of students with an IEP and/or a 504 plan echo this higher rate of discipline, compared to parents of students who do not have a specialized education plan.

Given the context of students having little guidance on responsible generative AI use, high rates of discipline are concerning. And though potentially unfair for all students, higher rates of discipline among vulnerable communities are particularly worrisome.

Perceived widespread academic use leads to mistrust

The rapid introduction of generative AI into the classroom has also eroded teachers’ trust in their students’ efforts, with 62 percent of teachers agreeing with the statement that “[g]enerative AI has made me more distrustful of whether my students’ work is actually theirs.” And half of teachers agree with the statement that “[g]enerative AI has made me less excited about my students’ work, as I am not confident that it is actually theirs.”
One possible explanation for this finding is that the universal hype around generative AI could be leading teachers to believe that “everyone is using it,” particularly for nefarious purposes in the classroom. **Ninety percent** of teachers report that they think that their students have used generative AI for school, and among those, **4 in 10** teachers report that they think their students have used generative AI to write and submit a paper.

However, the findings of relatively low student use of generative AI for school that were discussed previously in this report show that perception might not be reality. Even more telling, only **19 percent** of students that report using generative AI say that they have used it to write and submit a paper, raising questions about the aforementioned views that teachers hold.

**At the same time, teachers are left with little support to detect whether a student has used generative AI in ways they should not. Few teachers report that they have received this type of guidance ...**

[Graphs showing percentages of teachers who report discussing related topics]

**High-stakes uses are based on inaccurate responses**

As shared earlier, many students report using ChatGPT or other generative AI tools for personal use. But many of the personal uses they report are high stakes — **29 percent** have used it for dealing with anxiety or mental health issues, **22 percent** have used it for dealing with issues with friends, and **16 percent** have used it for dealing with family issues.
This finding is particularly alarming due to generative AI’s documented susceptibility to “hallucination,” meaning that it produces untrue responses. Teachers express high levels of concern about inaccuracies in generative AI, with 66 percent reporting this concern for school use and 65 percent reporting this concern for personal use.

Students who use generative AI for these high-stakes applications, such as getting mental health advice, are more vulnerable if the information is inaccurate. One wrong piece of advice could have devastating impacts on students and their families.

**What does generative AI mean for students?**

Simply put, parents and students need and want clear guidance from the top on this emerging technology. Eighty-one percent of parents say that guidance on how their child can responsibly use generative AI for schoolwork and within school rules would be helpful. And 72 percent of students agree that this same guidance would be helpful for themselves.

School officials and administrators should invest in crafting and sharing well-informed policies and procedures on the responsible use of generative AI in the classroom, including providing clarity about when discipline is appropriate and warranted. Each day this collective state of confusion persists, the risks to students continue to grow, especially given the fact that generative AI is such nascent technology.
**Conclusion**

**LOOKING AHEAD, FOCUS ON ALL STUDENTS’ RIGHTS TO A QUALITY EDUCATION**

Over the years that CDT has conducted research on the uses of edtech, it has become clear that, though edtech’s stated purposes are to support student learning and create a safe learning environment for students, it actually introduces risks that undermine these goals. Even more concerning, the negative impacts of edtech are felt most acutely among vulnerable and protected classes of students such as those who identify as LGBTQ+ and students with disabilities.

The adverse impacts of edtech have increasingly become a civil rights issue and should be treated as such by education leaders across the country. Documented threats to privacy remain important, but questions raised around the use and implementation of edtech should also focus on identifying and preventing discrimination. Fortunately, schools have been responsible for complying with civil rights laws for decades and do not have to start from scratch to address these emerging issues. Look at CDT’s companion piece\(^\text{18}\) of research to explore how these established laws have new applications in the age of edtech.
Methodology

This year’s surveys comprise a fifth wave of tracking among parents and teachers and a third wave among students. The surveys measure and track changes in perceptions, experiences, training, engagement, and concerns about student data privacy, content filtering and blocking, student activity monitoring, and generative AI. Surveys were conducted June–August 2023.

Online surveys of nationally representative samples of 1,018 6th- to 12th-grade parents, 1,005 6th- to 12th-grade teachers, and 1,029 9th- to 12th-grade students were fielded June–August 2023. Quotas were set to ensure that the data collected among students, parents, and teachers was representative of their respective audiences nationwide, and the data was weighted as needed to align nationally with key demographics. Sample sizes among parents and students were sufficient for analyses within key demographic groups, such as race and ethnicity.

Quotes are from parents interviewed for previous CDT research aimed at understanding the first-hand experiences of parents whose child’s online activities were flagged by student activity monitoring software. More about parents’ first-hand experiences is available at Beyond the Screen: Parents’ Experiences with Student Activity Monitoring in K–12 Schools, https://cdt.org/insights/report-beyond-the-screen-parents-experiences-with-student-activity-monitoring-in-k-12-schools/.
Endnotes


15 Thakur, Grant-Chapman & Laird, supra note 11.


18 Woelfel, Aboulafia, Laird & Brinker, supra note 1.