The past few years have seen widespread adoption of software that monitors students in K-12 schools across the country. These tools provide teachers and schools with the ability to filter web content, monitor students’ search engine queries and browsing history, view students’ email, messaging, and social media content, view the contents of their screens in real time, and other monitoring functionality. Fueled in part by pandemic-era remote learning needs, schools have adopted this technology with the aim of measuring and improving student engagement and keeping students safe online.

Yet, despite their popularity, these tools raise critical red flags for student equity and privacy protection.

To better understand how student activity monitoring software impacts those who have the most at stake — students themselves — CDT surveyed teachers, parents, and students about their experiences and attitudes toward these tools. Three key takeaways emerged:

1. Student activity monitoring software is widely used in K-12 schools;
2. Teachers, parents, and students largely report that the benefits outweigh the risks; and
3. Nevertheless, each of these groups express some privacy and equity concerns.

After examining these findings, we will offer recommendations for how to best preserve student privacy when considering the use of these tools.
Student activity monitoring software is widely used in K-12 schools.

CDT’s survey data suggests that student activity monitoring software is used extensively in K-12 schools: **81 percent** of teachers report that their school uses some form of monitoring software, with **71 percent** reporting its use on school-issued devices, but only **16 percent** reporting its use on personal devices (i.e. devices owned by students or their families). They say the software enables a variety of activities, ranging from the observation of online behavior to the ability to take direct control of student devices. Teachers note a broader range of functionality on school-issued devices than personal devices, which further suggests that students using the former are subjected to greater monitoring than those using their own devices.

Teachers who report that student activity monitoring software used by their school can...

- **Track student logins to school applications**
  - School-issued devices: 64%
  - Personal devices: 37%

- **View the contents of a student’s screen in real-time**
  - School-issued devices: 56%
  - Personal devices: 42%

- **Monitor or flag key word searches (e.g. accessing information on self-harm)**
  - School-issued devices: 52%
  - Personal devices: 53%

- **Close browser tabs when a student is not on-task**
  - School-issued devices: 30%
  - Personal devices: 19%

- **Take control of student input functionality (e.g. cursor, keyboard input)**
  - School-issued devices: 9%
  - Personal devices: 16%

*Base sample: teachers who report the use of student activity monitoring software on school-issued/personal devices at their school.*

Of teachers who indicate their school uses student activity monitoring software, only **one in four** report that monitoring is specifically limited to school hours — one in three report that monitoring takes place only on days that school is in session and nearly as many (30 percent) say that student activity monitoring is conducted all of the time.
Teachers, parents, and students largely report that the benefits of monitoring software outweigh the risks.

Teachers, parents, and, to a lesser extent, students, all report that the benefits of activity monitoring software generally outweigh the risks, with **66 percent** of teachers and **62 percent** of parents strongly or somewhat agreeing that, “The benefits of student activity monitoring outweigh concerns about student privacy.” Among students, **50 percent** report they are very or somewhat comfortable with the use of monitoring software, while **26 percent** express discomfort.

Comfort levels and perceived benefits are much higher for parents and teachers who report that their school currently uses student activity monitoring software versus those who do not. This difference in attitude emphasizes the potential impact of prior familiarity with monitoring software, and suggests an area of possible future research on the role of socialization and normalization in stakeholders’ comfort levels with these tools.
Teachers, parents, and students express some privacy and equity concerns.

Schools strive to create environments that are conducive to learning and help all students succeed. However, a range of privacy and equity concerns related to student activity monitoring may make this more difficult. Students express awareness of potential privacy implications around the use of this technology and say that it affects their behavior. Of students who indicate that their school uses monitoring software, many report a chilling effect on their behavior and self-expression online — six in ten students agree with the statement, “I do not share my true thoughts or ideas because I know what I do online is being monitored,” and 80 percent report being “more careful about what I search online when I know what I do online is being monitored.”

While a potential goal of student activity monitoring software is to prohibit access to obscene materials, these findings raise questions about whether tracking students may cause them to hesitate before accessing important resources (related to mental health, for instance).

Additionally, parents and teachers also express privacy concerns around the use of these tools, which include concerns about disciplinary applications as well as potential impacts on LGBTQ+ students and other unintended consequences.
Finally, a notable portion of parents and students lack awareness about their school’s use of activity monitoring software. For example, one in four parents report that they are “not sure” if their school uses monitoring software.

**Methodology**

Online surveys of 1,001 3rd-10th grade teachers, 1,663 K-12 parents, and 420 9th-12th grade students were fielded June 2021. The surveys defined student activity monitoring software as “technology that tracks student activity online, such as the date/time a student logs into the system, following what students are looking at on their computers during classroom instruction, and seeing the content of student emails, and/or student keyword searches. This tracking can occur within a learning management system or through a separate software program.”
Five Policy Recommendations

Our findings highlight the need for strong attention to privacy protection, mitigation of digital inequities, and intentional community engagement when considering the use of student activity monitoring software.

Provide transparency regarding student activity monitoring: Providing information in an accessible, understandable format helps empower families in their decisions about education technology and increases trust in the use of data. Consequently, if districts choose to use student activity monitoring software, they should go beyond broad statements that devices or networks are monitored or that users have “no reasonable expectation of privacy.” Instead, districts should inform users like parents and students about the specific data collected, how that information is used, and the vendors and any other third parties with whom the district shares data.

Minimize data collected on school-issued devices and through student activity monitoring software: Minimizing data collection is a core facet of responsible data use as it helps to limit data use outside of its intended context. When districts monitor students, they are often seeking to comply with the Children’s Internet Protection Act. However, CIPA does not define “monitoring” and may not require extensive data collection and monitoring. Therefore, if a district chooses to use monitoring software for purposes beyond legal compliance, it should minimize the data collected by limiting monitoring to certain times, limiting the portions of the network infrastructure and particular activities that are monitored, and engaging parents, teachers, and other adults to monitor children’s online activity in lieu of monitoring software.

Mitigate inequitable results arising from school-issued devices and student activity monitoring: Monitoring technology may exacerbate existing biases if safeguards are not put into place. Students who rely on school-issued devices may be unable to use their computers without being monitored, while students with personal devices may not be subject to monitoring. In addition to general data minimization, districts may reduce the inequitable impact of monitoring on students who depend on school-issued devices by specifically limiting the use of
data collected through monitoring for disciplinary purposes, as well as minimizing the circumstances under which student data is shared with law enforcement (e.g., creating detailed policies limiting the conditions under which the school or the vendor may contact law enforcement).

**Maintain control of student data when shared with student activity monitoring vendors:** Defining who has the ultimate control and legal rights over data is an important decision that is best made early and documented in a formal agreement. Many data sharing agreements, including those used for monitoring software, generally limit student data usage and disclosure to the purposes explicitly specified in the agreement and prohibit the use of student data for marketing or advertising to families or students. Limiting student data usage in this way is required under the Family Educational Rights and Privacy Act (FERPA) and reduces the risk of exposing students to harmful secondary data uses.

**Build capacity within the school system and among communities on how to close the homework gap while protecting students:** Building the skills of all stakeholders, especially students and families, can help them manage their school-issued devices in a secure and private way. As an alternative to student monitoring software, districts can engage community members and teachers to monitor students’ online activities and coach them on digital literacy and online citizenship, which can limit the unnecessary collection of data about students. Districts may initiate digital citizenship programs for students to help secure their digital lives, instruct staff to monitor, instruct, and assist students with online safety, and encourage parents to monitor students’ online activity and to talk with students about online safety.