securly

New technologies to ensure student safety in the digital age

About Securly

Securly was founded in 2013 with a single intention: to keep kids safe online. Securly develops solutions that keep kids safe and engaged online, at school, and at home.

From tools that help adults create a kid-friendlier Internet to an AI that recognizes signs of bullying and even intuits risks of self-harm, Securly breaks new ground and innovates to meet modern problems head-on. For every child that we empower to stand strong, for each kid that chooses hope over hopelessness, Securly is motivated to continue forging ahead.

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Student safety in the digital age

Keeping students safe used to be a lot simpler. But the rise of technology in the classroom and beyond has forever changed the scope and requirements of student safety—and the role IT professionals play in school settings.

It started with web filtering and blocking designed to protect students from exposure to pornography and explicit content. Next came unified threat management (UTM) solutions that consolidated multiple security and networking functions in a single device or service on the network, providing even more protection from increasing threats.

> There have been 490 cybersecurity-related incidents involving U.S. public schools since 2016.[1]

These once leading-edge defenses are now table stakes. And CIPA compliance is just the tip of the iceberg. As 1:1 device and BYOD initiatives take hold in schools and resources increasingly move to the cloud, K-12 network administrators face new challenges.

Scalability limitations, bandwidth bottlenecks, and SSL filtering problems (both performance and security related) are common complaints. It's also taking longer to run reports and becoming more difficult to authenticate users off site, not to mention the issues with maintaining data accessibility and decrypting secure websites.

To address these challenges, schools are buying more and faster hardware like load balancers to accommodate the bandwidth and using multiple web filtering products just to get by. But these measures are barely adequate. And they do little to address the broader scope of threats to student safety, like cyberbullying and school violence.

There's no denying that technological advancements are creating new and bigger problems for those tasked with ensuring student safety. But while some blame technology for the increasing threats our kids face today, technology also holds the power to protect students and provide potentially life-saving information to parents and administrators.

Read on to deepen your understanding of both the challenges school IT administrators face and the latest solutions available to address student safety.

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[1] Levin, Douglas A. (2019). "The State of K-12 Cybersecurity: 2018 Year in Review." Arlington, VA: EdTech Strategies, LLC/The K-12 Cybersecurity Resource Center.

New challenges require new solutions

The student safety technology of the past relied heavily on web filtering products that could block pornography without blocking legitimate websites. Even as new products entered the market—like malware detection, firewalls, email archiving, and other tools enabling greater control and visibility across a network—their primary value was in helping districts maintain CIPA compliance and obtain E-rate funds rather than fully addressing the complex nature of student safety threats.

While these technologies addressed the challenges of their times, the times are changing. New challenges are arising, causing forward-thinking IT professionals to seek new solutions.

Emergence of cloud-based technologies

Cloud computing is gaining popularity because of the low-cost infrastructure, scalability, and new opportunities for classroom collaboration it offers. But the off-premises nature of cloud solutions brings additional challenges around mitigating risk from phishing, session hijacking, IP spoofing, and other malicious actions that put students' personal information in jeopardy of falling into the wrong hands and potentially being used against them or their families.

Increase in 1:1 technology initiatives and BYOD programs

Approximately 40% of school districts nationwide have either implemented a 1:1 initiative or authorized a bring-your-own-device (BYOD) program.[2] Given that nearly 95% of teenagers[3] and almost 70% of children under 10 have access to a smartphone, tablet, or other Internet-connected device,[4] IT professionals have more devices to monitor, more reports to create, and more users to authenticate—all without the benefit of more resources.

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[2] "CoSN's 2018-2019 Annual Infrastructure Report." Consortium for School Networking (CoSN). COSN.org. 2018.

[3] Anderson, Monica and Jian, JingJing. "Teens, Social Media & Technology 2018." Pew Research Center. May 31, 2018.

[4] Versel, Leo. "As Cell Phones Proliferate in K-12, Schools Search for Smart Policies." Education Week. www.blog.edweek.org. February 8, 2018.

Rise in cyberbullying and safety concerns

While bullying was once limited mostly to the hallways and playground—areas that weren't under IT's purview—cyberbullying is now pervasive online and over digital devices. At the same time, school shootings are on the rise as are depression and suicide among young people. Youth suicide rates are now the highest they've been since 1960, when the government began keeping track.[5]
As the use of devices proliferates in our schools and classrooms, IT departments have a unique opportunity to proactively identify cyberbullying and other threats.

Sobering statistics about student safety

- More than 59% of students have been bullied or harassed online.[6]
- Teen depression, self-harm, and cyberbullying have increased by as much as 70% in a decade.[7]
- At least one in four teens are receiving sexually explicit texts and emails, and at least one in seven are sending them.[8]
- Just 23% of teens who have been cyberbullied report notifying an adult.[9]
- Between 2005 and 2017, the number of teens 12-17 reporting symptoms of a major depressive episode within the past year rose 52%.[10]
- Suicide is the second-leading cause of death among individuals ages 10-34.[11]
- In 2015, 40% of high school students who identify as gay, lesbian, bisexual, or questioning were seriously considering suicide.[12]

[5] Healy, Melissa. "Suicide rates for U.S. teens and young adults are the highest on record." Los Angeles Times. June 18, 2019.

[6] Anderson, Monica and Jian, JingJing. "Teens, Social Media & Technology 2018." Pew Research Center. May 31, 2018.

[7] O'Donnell, Jayne and Saker, Ann. "Teen suicide is soaring. Do spotty mental health and addiction treatment share blame?" USAToday.com. March 19, 2018.

[8] Rapaport, Lisa. "Teen sexting may be more common than you think." Reuters Health, Reuters.com. February 27, 2018.

[9] Musu-Gillette, L., Zhang, A., Wang, K., Zhang, J., and Oudekerk, B.A. "Indicators of School Crime and Safety: 2016." The National Center for Education Statistics, U.S. Department of Education, and Bureau of Justice Statistics, Office of Justice Programs, U.S. Department of Justice.

[10] Twenge, Jean M., Cooper, A. Bell, Joiner, Thomas E., Duffy, Mary E., Binau, Sarah G. "Age, Period, and Cohort Trends in Mood Disorder Indicators and SuicideRelated Outcomes in a Nationally Representative Dataset, 2005–2017." Journal of Abnormal Psychology. March 14, 2019.

[11] Centers for Disease Control and Prevention (CDC) WISQARS Leading Causes of Death. 2017.

[12] Centers for Disease Control and Prevention Youth Risk Behavior Surveillance - United States. 2015.

2018 U.S. K-12 School Shooting Statistics. Image and data sourced from:
https://www.edweek.org/ew/section/multimedia/the-school-shootings-of-2018-whats-behind.html

While web filtering products have long been the first line of defense, they aren't sufficient to address the challenges of today. They often focus on just one type of threat and rely heavily on the keyword or phrase searches that won't pick up on more nuanced threats or coded language.

Other point solutions take screenshots of documents, videos, and web forums that are automatically emailed to administrators when a blacklisted word or phrase appears. But these technologies frequently deliver false positive alerts and unreliable data with no context to guide administrators to an appropriate response. Adding to the complexity, each of these tools has its own reporting suite and dashboard, creating data silos that dramatically limit visibility and transparency across all digital platforms. And the task of compiling all that information into meaningful context often falls to already overwhelmed IT staff.

To address the challenges you face, you don't need another point solution. You need an intuitive and integrated approach that breaks down data silos to enable deep-dive insights, actionable intelligence, and the ability to collaborate closely to protect students from online and offline threats without extensive manual report creation or other intervention. You'll find it in Securly.

5 reasons web filtering and point solutions aren't enough

Web filtering was once the de facto standard for securing student technology devices. But it falls short of providing adequate safety for today's student safety concerns. The shortfalls of web filtering are many:

- Misses nuanced or coded language since it's only keyword or phrase based
- Leads to inaccurate results and frequent false positives
- Creates blind spots from data silos and disparate tools
- Focuses on only one type of threat
- Excludes parental involvement

Comprehensive student safety made surprisingly simple

You need a new approach to security, but you don't want to add complexity. Securly is revolutionizing school and student safety with an easy-to-use and quick-to-deploy cloud-based solution developed specifically for K-12 schools.

Proactively identify safety red flags

To address the full scope of student safety issues, you need more than just keyword detection or the ability to see what websites kids are accessing. Sentiment Detection uses advanced artificial intelligence (AI) designed to detect cyberbullying, self-harm, depression, violence, and other threat factors. By analyzing search engine queries and posts made on social media websites, Sentiment Detection can detect the emotional sentiment behind the words being used, while applying contextual intelligence to differentiate between benign and potentially dangerous language. For example, "I don't know how much longer I can take this" will be triggered, but "to kill a mockingbird" will not.

> **1 in 5 U.S. public school districts use Securly's advanced cloud-based web filter.**

Once activity has been flagged, you can use delegated reporting and alerts to notify building-level administrators within seconds when a student is at risk. Delegated administrators can also access reports quickly and easily, and without changing filtering policies—taking the burden off of district technology staff to provide access.

- Detect cyberbullying, self-harm, depression, violence, and more using advanced AI
- Minimize false alarms by applying contextual intelligence
- Notify building-level administrators within seconds and delegate access to reports
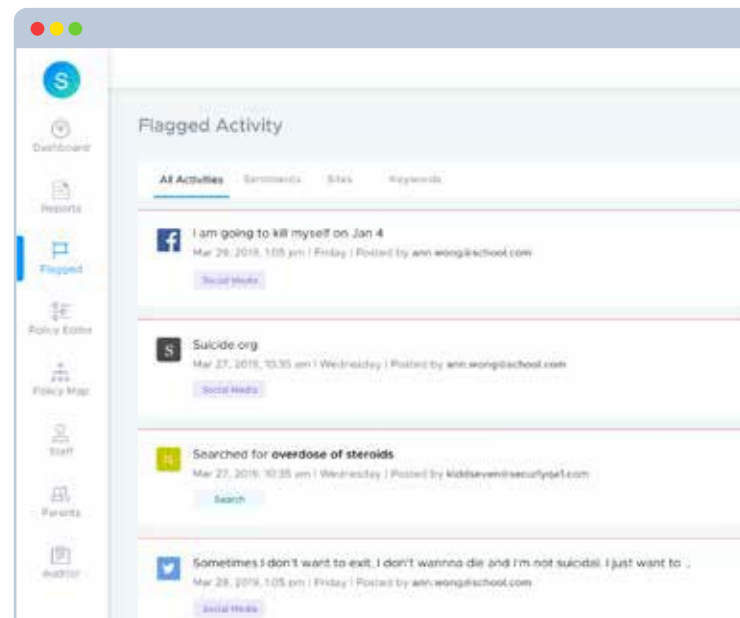
> **"**
> Our students are safer due to the monitoring of bullying and self-harm. The quick turn around from incident to reporting to administration is amazing.
>
> **Chris Parker**
> Technology Coordinator, Gateway Regional School District
> **"**

Extend threat identification to emails and documents

The ability to filter web data in a better and more meaningful way is just the beginning. With Securly, you can apply advanced auditing capabilities to ensure you have a safe environment everywhere your students are active. By applying Sentiment Detection to emails and G Suite and Office365 cloud drives, you can identify harmful content in emails sent and received, as well as in attachments and stored documents. Administrators are instantly notified of flagged activity, including copies of the actual content that needs review.

> An audit of 150 devices issued to students in nine of the 144 school districts in Mississippi found that 20% contained explicit material.[13]

This threat detection also encompasses pornographic content. Most school districts have child pornography present in their cloud environments, whether they realize it or not. This raises concerns about CIPA compliance, and for good reason. With Securly's image detection capability, you're notified when pornographic and inappropriate images are found in emails, attachments, and documents.

- Apply advanced filtering to emails, attachments, and G Suite and Office365 files
- Detect pornographic content in images
- Instantly notify administrators and include flagged content with blurred versions of images

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[13] Wagner Pettus, Emily. "State audit finds pornography on school-issued computers." Clarion Ledger. April 5, 2017.

> We have loved the added protection and notifications from Securly!
>
> **Jeremy Hudson**
> IT/Tech Specialist, High Point Academy Fort Worth

Partner with parents to protect students

The best approach to student safety is one that facilitates partnership and collaboration between the school and parents. With Securly, you can empower parents to take an active role in their children's online safety by offering them a fully integrated companion application that gives them visibility into their child's online activity on a school device. You can choose to provide visibility over at-home activity alone or expose educational activity if desired.

More than 1 million parents are partnering with schools to protect their students' safety.

Parental controls can be applied to allow parents to have direct input over what their child does on school devices in their own home. They're able to take an active role in their kids' online activities and be notified of risky behavior. With multiple settings that can fit most any school take-home policy, you can give parents the access they're legally entitled to through Family Educational Rights and Privacy Act (FERPA) regulations, as well as the involvement they need to fully address student safety. In fact, Securly offers a suite of products specifically designed for parents, so you can all be on the same page.

- Facilitate parental involvement in students' online safety
- Provide parents visibility into activity on school devices
- Apply controls consistent with your take-home device policy

Provide life-saving alerts

As school shootings make headline news and youth suicide rates continue to rise, many feel powerless to make a difference. Securly gives you access to experts trained to identify the signs of severe bullying, depression, and violent acts. You'll be supported by a team of analysts with expertise in criminology and psychology who work 24/7 to review social media posts, websites visited, flagged emails, and tipline data to identify potential threats among your student population and alert your staff or local authorities.

Real-life scenarios aided by Securly alerts

@K heard back from @M after turning off their trial a half hour ago. "Last weekend, your staff contacted our tram after hours after a student searched **how to bring harm to themselves**. While the parents knew the child was having issues; she did not know the level until the police showed up to do a wellness check and explained what was reported. This parent was a teacher in our district. This platform saved a life and I'm wondering if what we need to do to keep on the last two weeks if school. I also need to know the next steps for a full implementation starting fall."

After finding a student doing these searches—"**overdose+on+painkillers,**" "**what+happens+when+you+overdose+on+painkillers,**" and "**overdose+on+ibuprofen,**" plus an earlier unflagged search about the **effects of taking 15 ibuprofen**—@R made 10 calls to each contact at the school. She then called the police to request a wellness check. She later got a call from the police saying they were at the house, the student had overdosed, and an ambulance was en route.

@P and @R notified a district last night about a student searching for "**how+does+one+make+a+bomb**" and "**how+does+one+make+a+bomb+with+stuff+at+home.**" After calling the district, @R followed up with another notification letting them know the student had continued, searching for "**how+does+one+make+a+bomb+list**" and "**ingredients+for+a+bomb.**" The district responded to let us know they were turning the information over to law enforcement.

With an average response time of three minutes, our alerts have included suicidal behavior, imminent suicide threats, and calls for wellness checks. Securly's tipline service also provides students the ability to anonymously report being bullied, as well as report anything they believe may be a threat or safety risk.

- Gain 24/7 expert analysis of potential threats
- Act on potentially life-saving alerts within minutes
- Provide tipline service for students to report perceived threats and safety risks

Take advantage of advanced features and functionality

When you rely on Securly for your student safety solutions, you gain the peace of mind that you're doing all you can along with advanced capabilities to protect your students from a range of threats to their online, physical, and emotional safety.

You also gain access to advanced features that strike the just-right balance between security and user experience, including:

True cloud deployment

Get the core capabilities of a web filter with absolutely no hardware appliances or software agents to deploy—and less than 10% of your traffic being sent to the cloud. You reduce deployment time and stay up-to-date with software bugs and updates.

Seamless authentication

Authenticate against Google, Azure, and Active Directory—as well as on domain machines if desired—using G Suite or Office365 to give your students and staff a simple and streamlined authentication experience.

Simplified device management

Managing the student experience at the device level is the most effective way to keep students safe online, but managing all of those devices can be expensive and complex. Designed specifically for education, SchoolMDM makes device management easier and more cost effective.

Unlimited data retention & reporting in seconds

There are times when you need to follow a trend of behavior for a student as you investigate their online activity. If you need the data, you'll always have it, without running user-audit reports that are limited and time-consuming.

Selective SSL decryption

When you use our unique approach to filtering and decrypting secure web traffic, you virtually eliminate performance issues and the need to whitelist sites—not to mention the security concerns when your superintendent accesses online bank accounts from a personal device.

Unlimited scalability

Cloud deployment allows for filtering and authenticating your traffic and users to virtually unlimited amounts of bandwidth and concurrent connections—without proxying or decrypting most traffic. You can say goodbye to appliances and load balancers, as well as annual bandwidth upgrades.

Fast deployment and adoption

Web filtering has become complex and difficult to manage. With Securly's set-and-forget cloud filter designed for schools, you get only the functionality you need in an interface that deploys in under an hour and can be learned in just minutes.

Greater cost efficiency & simplified administration

Managing and maintaining disparate point solutions is costly and adds complexity. By consolidating your web filtering and student safety needs in the cloud, you simplify your administrative requirements and save money.

Unlimited support

When you need help, you don't want to wait. You get unlimited access to friendly and knowledgeable technical support staff 12 hours per day to help you quickly resolve issues.

Integrated applications for parents

You can collaborate with parents to ensure student safety with SecurlyHome and The Hub, two fully integrated companion applications that provide online visibility and device monitoring.

> Securly provides tools and proper access for districts looking to expand learning outside of the traditional walls, while still giving insight into safety and well-being.
>
> **Rob Dickerson**
> Executive Director, Omaha Public Schools

Step up student safety with Securly

When you're responsible for the IT needs of schools and their students, you have plenty of challenges to navigate. And you must find solutions to those challenges despite staff and budgetary limitations.

Student safety isn't your only priority, but it's a critical one. Our students face more threats than ever, both inside and outside of the classroom. And while technology is often cited as the problem, it also holds the solution.

But the tools that worked yesterday are no longer enough to protect against the range of safety risks and threats. And keeping students safe at school, in the classroom, and at home must be a collective effort among schools and parents.

With Securly's student safety solutions, you're able to provide proactive protection against a range of threats and facilitate the partnership necessary between schools and parents to protect our kids in a digital world. Armed with our simple-to-deploy-and-use tools, you can feel confident that you're using the best technology to ensure student safety, while making the best use of your available resources.

Ready to see how Securly can help you step up student safety?
Sign up for a free, no-obligation trial today at securly.com/free-trial.

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