NetSupport DNA

Why Keeping Students Safe Online is About Much More Than Web Filtering

When K-12 leaders think of protecting students online, the first thing that comes to mind is shielding them from hackers, predators, or inappropriate websites—and internet filtering systems can perform this function well. But there is much more to protecting students online than just monitoring or filtering their web access.

Adolescence can be a rough period for students both socially and emotionally, and they face a wide variety of threats to their safety and well-being. Sometimes, these threats come from other students, such as bullying, sexual harassment, radicalism, or hate crimes; sometimes they can be self-inflicted, such as eating disorders, self harm, or thoughts of suicide.

Consider the following statistics:

• Suicide is the second leading cause of death for 15- to 24-year-olds and the sixth leading cause of death for 5- to 15-year-olds, according to the Centers for Disease Control and Prevention (CDC).

• Twenty-four percent of high school students have seriously thought about attempting suicide, according to the NYU School of Medicine's Child Study Center.

• Twenty percent of students in grades 9-12 reported being bullied in 2013, the CDC says.

• Studies suggest that some 17 to 28 percent of teens and young adults say they have engaged in self-injury at some point in their lifetimes, according to LiveScience.

K-12 leaders can intervene in situations like these to protect their students—but only if they are aware of the problem.

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Monitoring what students type into search engines, discussion groups, and other applications is one way to create this awareness. Another way is to give students a safe and easy method of reporting possible threats to themselves or others.

NetSupport DNA is a suite of technology tools that can help with these functions and more. The software combines traditional features of asset management software, such as hardware inventory, software licensing, and application metering, with features designed to keep students safe from harm.

Keyword Monitoring

The Keyword Monitoring feature in NetSupport DNA alerts school and district leaders to anything students type that suggests they might be involved in activities that would place them at risk.

The software compares students' keyboard inputs to a database of pre-supplied keywords and phrases covering a broad range of topics, from self harm, bullying, and racism to drug use and radicalization. NetSupport developed this database in conjunction with the Internet Watch Foundation; school leaders can add their own keywords as well, and they can export keywords for sharing with other schools or districts.

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NetSupport DNA then uses advanced neurolinguistics to analyze the context of possible matches, so as to avoid "false positives." If a keyword is triggered and reviews as a false alarm, a "false alarm" note can be added. School leaders can set the severity level for individual keywords and phrases, and this controls the outcome of a match — from simply logging the activity to triggering an instant alert or screen capture.

"We've added the ability to record the broader input around the matched phrase, so you can see the context of what students are doing," says Al Kingsley, CEO of NetSupport. "The software will monitor and record all matches, and for keywords with a higher level of severity, it can trigger an alert that will be sent immediately to an appropriate educator, while also capturing a screenshot for separate review."

School leaders can configure the software to monitor the words and phrases students use when they compose text, copy text to a clipboard, or search on the internet. They can also choose whether to exclude certain applications from monitoring. It would be easy to restrict everything that could be seen as a risk, but in reality that's impractical and would impact learning. Fortunately, NetSupport DNA is designed to promote digital citizenship and to encourage students to act responsibly online. "If students are creating a Word document or PowerPoint presentation, there may be a higher likelihood of words being used in an innocent context," says Kingsley. For instance, a student could be writing a short story in which the narrator indulges in drug use or threatens another character. To reduce the likelihood of such false positives, school leaders could exclude inputs from Word files and similar applications.

In a brand-new feature that is unique to NetSupport DNA, the software will generate a word cloud that allows school leaders to see trending topics their students are discussing.

The larger the word in the cloud, the more frequently students are using it. By clicking on any word in the cloud, school leaders can drill down to see individual instances of its use.

Contextual Intelligence-based Risk Index

Taking school filtering and monitoring up a gear, NetSupport DNA uses artificial intelligence to deliver the concept of 'contextual intelligence', which has been applied to the product's Risk Index. This helps school counselors by examining the context and history of a student's activities — from the devices used, time of day, and websites visited (including previous alerts they may have triggered) — and, from this information, creates a risk index number; the higher the number, the more at risk that student is. A high risk index could result if a child has repeatedly researched a concerning topic (e.g. suicide) out of hours, in an unmonitored setting such as the library, but a lower index rating could result from a student searching a lower risk keyword in a local application during school hours that may have been used for curriculum topics.

The monitoring and assessment of these alerts is kept secure ensuring they are dealt with locally in school

by the school counselors who know their students (no third-party services required). The index allows them to focus on high-risk alerts (where there is more likely to be a genuine risk) and to apply their professional judgement when deciding what the next steps for a particular student should be.

Discreet Reporting of Concerns

Enabling students to report any concerns they might have safely and anonymously is another key component of an effective internet safety policy. NetSupport DNA includes a "Report a Concern" feature that allows students to do this easily.

"We recognize that teachers don't always know what's going on with their students, because they can't be everywhere at once," Kingsley says. With DNA, "If students have any concerns, even about themselves, they can discreetly and confidentially report their concerns to a designated adult."

At the bottom of the toolbar on each school computer is a DNA logo. If students click on this logo, it brings up a box where they can report a concern and attach any supporting documentation they might have. Concerns could be anything from bullying, to abuse at home, to emotional distress, or simply witnessing dangerous behavior by another student.

School leaders can designate as many staff members to receive these reports as they'd like. Then, when students use this feature, they can choose which designated employee they'd like to direct their concern to. The staff member in question is alerted instantly when a concern is raised, and he or she can record any follow-up actions taken within the software itself, so school leaders can monitor the situation and ensure a proper resolution. Leaders can receive an alert if no action is taken within a designated period of time. In addition to students being able to report their concerns from any school PC to a trusted member of staff, teachers can now do the same in situations where they are verbally told of a student's concern. They can now log the concern via the "Add a Concern" button on the navigation tab. Just like the students,

the teacher can select which member of staff they would like to report the concern to, enabling the selected staff member to track the concern, re-assign it and record any follow-up actions directly from within NetSupport DNA.

To give students options to seek help on their own, NetSupport DNA also provides a list of helplines and online resources, such as suicide hotlines and information on surviving sexual abuse or bullying. School leaders can manage the software's pre-populated list and can add or delete resources as they think is appropriate.

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Policy Enforcement and Endpoint Security

The keyword monitoring and anonymous reporting features of NetSupport DNA complement the software's traditional web filtering capabilities, which allow school leaders to manage students' internet use by centrally applying lists of approved or blocked websites or web pages within larger domains.

With NetSupport DNA, school leaders can allow unrestricted access to all websites, restrict students' access to certain websites that have been marked as approved, or block access to specific sites marked as inappropriate. K-12 leaders can apply these restrictions by time of day—allowing students to access Facebook and other social media sites before and after school or during lunch, for instance, while blocking access during class periods—and they also can generate full reports on students' internet activity.

What's more, NetSupport DNA includes features to help enforce Acceptable Use Policies, allowing you to manage the use of USB memory sticks to help protect both students and networks.
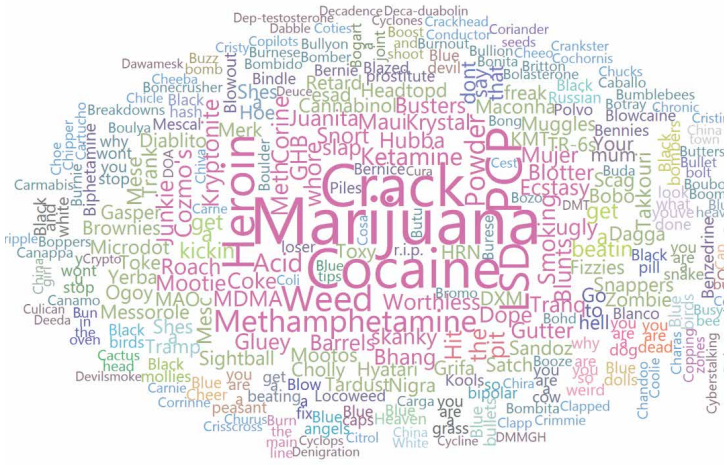
Within the endpoint security feature, school leaders can allow full access, block all access, or just prevent applications from launching from a memory stick, and they can apply these policies school-wide or by department. Alternatively, K-12 leaders can authorize the use of individual memory sticks by staff or students.

Additional IT Management Features

In addition to these comprehensive internet safety features, NetSupport DNA contains all the usual features school leaders would expect from an asset management solution, such as multi-platform support including Windows, Mac, iOS, Android and Chrome. It provided the ability to inventory all the hardware and software on a school's network, as well as scanning network addresses to discover connected devices, manage software licenses, track software usage to help plan licensing needs, identify changes made across the network, and alert IT administrators when a change occurs.

The program also includes many features designed to save users time and money, while providing a fast return on investment, such as…

- A software distribution package that automates software deployment across the network from a single location.

- An Energy Monitoring module that reports on the power consumption of devices connected to the network and automatically powers them on or off at a pre-scheduled time to reduce energy waste.

- A Print Monitoring feature that allows school leaders to monitor the use of printers across the network. School leaders can assign a cost value for toner, paper, and other expenses and then receive reports on how much each device is consuming, in order to manage printing costs.

- A Profiles setting can save time by allowing schools to create multiple profiles for different groups of devices or users (i.e. year group or department level), each with its specific component settings. This means dedicated settings (such as internet access) can be applied to specific year groups, allowing the schools to implement age-appropriate monitoring and restrictions.

The Explorer View component shows the activity for all PCs within a group, and it functions similarly to Windows Explorer. IT administrators can switch between detail view (a line for each PC), icon view (an icon denoting each PC), or thumbnail view (a snapshot of the PC screen). Explorer View gives IT staff a big-picture view of student activity by class, grade level, or department; they can see active violations in real time (the icon or thumbnail turns red if a keyword has been

triggered), and they can right-click on a PC to launch a chat with that user. Explorer View allows IT staff to identify PCs that might need immediate attention and launch 1:1 support tools in response.

Aditional features in the latest version of the program mean that technicians can now monitor and manage Android device activity via an Android Browser app. This gathers a full hardware/software inventory from Android devices and enables real-time monitoring via thumbnail views, as well as including Report a Concern, Phrase Monitoring, Internet Safety Resources, Chat and Message features.

NetSupport DNA provides a single time-based summary of all activity by a specific user, PC or department. Presented in a chronological view, it shows technicians what time the logon session began and ended, as well as exactly what applications were used and when, internet usage and any triggered keywords over a set time period. This time-saving feature means that technicians now do not have to look at each area separately and can instead see the full picture of activity, at a glance in one location. For example, if there was a concerning incident, a technician or counselor could review exactly what took place before and after the incident occurred.

An Effective Partnership

NetSupport DNA integrates seamlessly with NetSupport School, the company's classroom management solution, which allows teachers to manage their classrooms more effectively by viewing and controlling students' screens, sharing their screen with the class or with groups of students, delivering lessons and collecting student work, facilitating collaboration, assessing students' understanding of a concept, and more.

In fact, NetSupport DNA can be bundled together with NetSupport School at a steep discount for education.

"We've changed our whole pricing model, which makes it very compelling," Kingsley says. "It's only marginally more expensive to buy the complete asset management suite along with NetSupport School

than it would be to buy the classroom management software alone. We're talking about maybe a 10 to 15 percent uplift in price to get a complete solution that now supports a broader range of platforms and devices including enhanced Windows, Mac, iOS and Android agents in addition to an all new Chrome Agent."

A 'Deeper Level' of Internet Safety

Hillcrest Academy in Minnesota is a private Christian school serving students in grades 7-12, with students in grades 9-12 living at the school. Hillcrest has two Windows-based computer labs, one of which is an online learning lab used for personalized learning, credit recovery, and independent study—and the school has bundled NetSupport DNA along with NetSupport School to give educators greater insight into their students' network use.

"I felt like I was lacking a lot of visibility into what was happening on our network," says Ryan Erickson, director of technology for the school. "NetSupport DNA gives me a really good look at our network use. It's like I've opened a window, and I can see exactly what's going on now."

With NetSupport DNA, Erickson can see what applications are running, how and when these are being used, where Hillcrest needs to have more software licenses, and where the school can cut back on underused licenses. But what he appreciates most of all are the software's many internet safety features.

"We're a Christian school, so beyond the interest in having a safe environment, we want to make sure the activity on our machines honors our mission as a school," he says.

Hillcrest has employed category-based filtering for years, but "there are always holes in that," he notes. "With this product, we can see in real time where people are going, and it's very easy for me to apply a one-off block to a website or a portion of a website. For example, we've been able to keep Facebook open but block certain applications within it. With category blocking, it's very difficult to block just those individual pages or features."

Erickson has set up the software so that he receives automatic alerts when students input certain types of keywords or phrases, complete with screenshots of the activity in question. Recently, he got a series of alerts notifying him that many phrases were being matched within the suicide category.

"By looking at the activity, I quickly learned there was a class project for sociology that a group of students was working on in which they had compiled statistics on suicide rates," he says. "I was able to look at the context and then dismiss it, knowing that students weren't in danger of harming themselves." But if the threats had been real, Erickson would have been in a position to take appropriate action immediately.

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One of the aspects Erickson really likes about the software is that "It's not only looking at a URL. It's looking at keyboard inputs as well," he says.

"We can be monitoring activities as someone is typing a note, even if they're not doing that online. We're able to look at the entire activity on the machine, rather than just what happens to be passing through our internet connection. As a result, we're able to get a much deeper level of security."

Broad Functionality

Summit Preparatory School in Montana is a therapeutic boarding school for troubled teens in grades 9-12. Because its students are at a greater risk of harming themselves or others, IT Administrator Matt Fehlman appreciates the many internet safety features of NetSupport DNA, such as the automatic alerts that help keep students secure.

Students receive an HP ProBook laptop to use at the school. The cost of the laptops is included in their tuition, and each machine is pre-loaded with NetSupport School and DNA software. When they graduate,

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Fehlman removes the NetSupport software and other proprietary programs, and students can keep their machines as they leave.

"Teachers are busy," Fehlman says. "They can't always stay on top of kids to keep them on task or see what they're doing—such as accessing proxy servers to circumvent the filter."

Fehlman uses the keyword monitoring feature of DNA to help him identify which websites to filter. For instance, he has configured the software to send him an alert whenever a student types the word "proxy," and he can see which proxy sites the student was looking at—so he can add these to the software's block list.

Trying to list all the websites that students shouldn't be accessing is "like counting stars in the heavens," he says. "We're essentially letting the kids create the block list for us."

Fehlman also uses the asset management features within DNA to save time and money. The software distribution feature has saved him countless hours installing software on students' laptops, and the print management functionality has helped cut waste.

"The more I use the software, the more I appreciate its functionality," he says.

About NetSupport

For the last 30 years, NetSupport has been at the forefront of developing innovative solutions to aid in the management of computers and their users. NetSupport products are available in more than 90 countries worldwide and currently support more than 17 million desktops, servers, and mobile devices.

To learn more about the internet safety features of NetSupport DNA for education, or to request a free trial, go to **www.netsupportdna.com/education.**