Ask any superintendent to list five things that keep them up at night, and student safety will be at the top of their list. Making sure their students have appropriate access to technology is also on that top five list for superintendents, especially as more jobs require technology skills and technology continues to penetrate every aspect of our society.

Technology in schools has morphed from radio in the 1920s to collaborative virtual learning environments today. Districts across the country have earmarked an estimated $13.2 billion for education technology out of their budgets totaling $65.7 billion. This remarkable inclusion of technology in classrooms is designed to provide a robust and interactive learning environment and, most importantly, provide students with skills that will benefit them in college and their future career.

The cost of making technology available within the school clearly extends to ensuring students are safe when using district-issued technology resources. Many districts across the country are investing millions in infrastructure and devices to provide collaborative, problem-solving, and communicative environments for students through technology, but measuring the return on that investment isn’t always tangible.

Most, if not all, educators would agree that it’s vital to protect our students both physically and digitally. But how do educators measure the return on their safety investments? Three school districts were interviewed for this report, each of which utilize a sophisticated student safety monitoring service that combines both human safety experts and the latest technology.

Each district stated the return on investment for ensuring students are safe while using virtual classrooms could not be quantified and further stated that purchasing a service to monitor these environments was priceless.
At Gaggle, our mission is to help ensure the safety and well-being of all students. We use both artificial intelligence and trained safety experts to proactively assist districts in the prevention of bullying, inappropriate behaviors, school violence, and other harmful situations—24 hours a day, seven days a week, 365 days a year. Gaggle has helped hundreds of districts avoid tragedies and save lives, while also protecting their liability.

In this report, we review the student safety trends revealed by Gaggle’s data during the first year of the pandemic, from March 13, 2020 to March 12, 2021.
# Table of Contents

- **Introduction**  
  4
- **Supporting Educators and Students**  
  5
- **A Surge in Student Content**  
  6
- **Students in Crisis**  
  7
- **How Are Elementary Students Coping?**  
  9
- **The 2020–21 School Year (So Far)**  
  10
- **Protecting Students Across the Country**  
  11
Introduction

It's been more than a year since our lives changed drastically as a result of the COVID-19 pandemic. Last March, we all watched in shock as schools and businesses shut down, stores struggled to meet the demand for groceries and cleaning supplies, and the world went into quarantine.

Never before had we experienced anything quite like this—and certainly not on this scale. While the pandemic impacted just about everyone, the lives and routines of students and educators were flipped upside-down overnight. How were students affected by all this? Where did we see spikes in troubling student safety and mental health trends? And what can we learn from the data?

In this special report, we dive into the story behind Gaggle's data during a full year of living and learning through the pandemic.
As districts across the country transitioned to distance learning, many turned to Gaggle to help support student safety as an unprecedented number of students shifted to fully online learning from home. Since the outbreak of the pandemic, the number of students protected by Gaggle has grown by 22%, including both new partnerships and existing partners who chose to expand their service to incorporate additional grade levels. With these new and expanded partnerships, Gaggle now helps safeguard approximately 5.2 million students across 1,500 school districts in the United States.

Gaggle’s student safety solution analyzes and reviews the use of online tools within Google’s G Suite, Microsoft 365, Google Hangouts, Microsoft Teams, and the Canvas learning management system. Machine learning technology watches for specific words and phrases that might indicate potentially harmful behavior, flagging questionable content for further review. Flagged content is then evaluated by trained safety professionals to determine whether it is a threat—and how much of a threat it poses. School officials are notified when students show signs of self-harm, depression, thoughts of suicide, drug and alcohol abuse, cyberbullying, unhealthy relationships, violence toward others, and other credible threats.
A Surge in Student Content

Given the surge in students sent home with devices, stay-at-home orders, distance learning, and our own growth in terms of students protected, it’s no surprise that the number of items analyzed by Gaggle skyrocketed over the past year. From March 2020 to March 2021, Gaggle analyzed almost seven billion items—up 127% from the previous year. If a human were to review the same amount of content Gaggle ingested during the pandemic, it would take approximately 2,663 years.

During this time frame, Gaggle's machine learning flagged more than 38.2 million items requiring human review. Our team of safety professionals then spent 328,639 hours reviewing this flagged content, only alerting district officials to the items that posed a threat to student safety and well-being.

With education moving to the virtual environment, students were engaging much more with their devices. In fact, school-issued accounts were used to create 85% more content per student than the year prior. At the elementary level, we saw an astonishing increase of 429% more content per student—a sign of just how much more reliant younger students became on using devices for education during this time frame.
Students in Crisis

During the pandemic, Gaggle has recorded a 31% overall increase in incidents, rising from 40.1 to 52.6 incidents per 1,000 students. Between March 13, 2020 and March 12, 2021, schools and districts across the country responded to more than 273,000 incidents flagged by Gaggle to help ensure student safety and well-being. Of these, more than four out of every 10 incidents were flagged for Suicide & Self-Harm. In addition, about one in every four incidents was flagged for Violence Toward Others.

We saw significant increases* in four of our content categories, with Nudity & Sexual Content representing the largest growth in student incidents, followed by Drugs & Alcohol and Suicide & Self-Harm.

- **Suicide & Self-Harm increased by 35%**
  (from 16.0 to 21.7 incidents per 1,000 students)

- **Violence Toward Others increased by 23%**
  (from 10.6 to 13.1 incidents per 1,000 students)

- **Nudity & Sexual Content increased by 76%**
  (from 5.0 to 8.9 incidents per 1,000 students)

- **Drugs & Alcohol increased by 46%**
  (from 2.4 to 3.5 incidents per 1,000 students)

- **Harassment decreased by 4%**
  (from 3.7 to 3.5 incidents per 1,000 students)

*Incident rate increases per 1,000 students.
Today's educators are well aware of the crisis in student mental health. Students were already having a tough time before the pandemic struck, and the fear and uncertainty that they have faced over the past year has taken a toll on their mental health—as evidenced by the **35% increase in incidents involving Suicide & Self Harm**. With incidents in this category occurring at a rate of **21.7 per 1,000 students**, up from 16 incidents per 1,000 students the year prior, it’s clear just how much students are struggling. Gaggle also found **495 apparent suicide notes** during this time frame, a **14% increase from the previous year**.

When it comes to incidents involving Violence Toward Others, Gaggle noted an interesting trend during the pandemic: a decrease in incidents at the high school level. While we saw an **overall increase of 23%** for incidents in this category, incidents at the high school level were **down by approximately 10%**. Overall, incidents involving Violence Toward Others occurred at a rate of **13.1 incidents per 1,000 students** during this time frame, up from 10.6 incidents per 1,000 students the previous year.

The prevalence of students with devices likely played a large role in the growth in incidents involving Nudity & Sexual Content. As students were forced to stay home, some with school-issued devices at home for the first time, incidents in this category **increased by 76%, with approximately 8.9 incidents occurring per 1,000 students**, up from 5.0 incidents per 1,000 students in the year prior to the pandemic. It’s important to note that the content in this category doesn’t just include pornographic content students have found online—it also includes nude or otherwise sexually explicit photos and videos of the students themselves.

Unfortunately, many students make references to drug and alcohol abuse using their school-issued accounts—and this didn’t change despite stay-at-home orders during the pandemic. Incidents involving Drugs & Alcohol **increased by 46%, with approximately 3.5 incidents occurring per 1,000 students**. During the year leading up to the pandemic, incidents in this category occurred at a rate of 2.4 incidents per 1,000 students.

Interestingly, Harassment was the one content category where we saw a slight decline. While students were still using their school-issued accounts to participate in harmful behaviors like cyberbullying, personal attacks, and threats, it seems that distance learning and social distancing may have provided fewer opportunities for harassment. Incidents in this category **decreased by 4.6%, with approximately 3.5 incidents occurring per 1,000 students**, down from 3.7 incidents per 1,000 students the year prior.
How Are Elementary Students Coping?

Alarming, incident rates across all five categories grew exponentially at the elementary level during the pandemic, showing just how important it is to safeguard these younger students in the virtual environment. As more and more elementary students were handed devices to take home, we saw massive upticks in both usage and incidents at this level.

During the pandemic time frame, the number of elementary students protected by Gaggle increased by 27%. With a growing number of school districts choosing to partner with Gaggle to help support students at the elementary level, we expected to see some growth in student items analyzed for this age group. What we saw was shocking, with items analyzed per student increasing by an incredible 429%.

In every single major category Gaggle flags, incidents for elementary school students increased* by 100% or more:

- **Suicide & Self-Harm increased by 191%**
  (from 2.3 to 6.8 incidents per 1,000 students)
- **Violence Toward Others increased by 225%**
  (from 2.1 to 7.0 incidents per 1,000 students)
- **Nudity & Sexual Content increased by 281%**
  (from 0.8 to 3.0 incidents per 1,000 students)
- **Drugs & Alcohol increased by 317%**
  (from 0.2 to 0.8 incidents per 1,000 students)
- **Harassment increased by 100%**
  (from 0.9 to 1.8 incidents per 1,000 students)

*Incident rate increases per 1,000 students.
The current school year has been filled with uncertainties, and we’re continuing to monitor trends in student safety as the year progresses. What are we seeing so far?

When comparing the current school year (from August 2020 through March 2021) to the same time frame during the 2019–20 school year, we’re seeing similar trends to those seen throughout the pandemic. So far this school year, we’ve analyzed more than 5.5 billion items of student content on school-issued accounts, an increase of 126% from the previous year.

We’re seeing increases* across all of our content categories during the current school year:

- **Increase in Suicide & Self-Harm**
  (11.8 to 19.7 incidents)
  - 67%

- **Increase in Violence Toward Others**
  (7.5 to 12.6 incidents)
  - 67%

- **Increase in Nudity & Sexual Content**
  (3.4 to 8.2 incidents)
  - 143%

- **Increase in Drugs & Alcohol**
  (1.7 to 3.4 incidents)
  - 98%

- **Increase in Harassment**
  (2.9 to 3.4 incidents)
  - 16%

We don’t yet know just how much the pandemic has affected the mental health of this generation of students. Will the hope that comes with widespread vaccination rollouts slow the troubling trends uncovered by Gaggle’s data? Or will all of the trauma students have faced over the past year intensify the crisis in student mental health? Whatever happens as we close out the 2020–21 school year, Gaggle will continue to provide safeguards for students in the virtual environment and alert our district partners when students show signs of distress.

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*Incident rate increases per 1,000 students.
Protecting Students Across the Country

One year in, it’s clear that the COVID-19 pandemic has had a significant impact on today’s students. Gaggle is proud to partner with 1,500 school districts across the country to help protect more than 5.2 million of America’s students.

In the year since the pandemic disrupted how educators teach and how students learn, Gaggle’s insights helped school district leaders intervene to save the lives of 1,199 students. How does Gaggle determine the number of lives saved? We either heard back from the district that a life was saved, what the student wrote included a clear and definitive plan, or both.

By quickly identifying students in distress and alerting district emergency contacts, our district partners were able to support students and save lives. Whether students were learning on campus, at home, or a combination of the two, Gaggle was helping educators keep them safe—24 hours a day, seven days a week.
Ask any superintendent to list five things that keep them up at night, and student safety will be at the top of their list. Making sure their students have appropriate access to technology is also on that top five list for superintendents, especially as more jobs require technology skills and technology continues to penetrate every aspect of our society.

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The cost of making technology available within the school clearly extends to ensuring students are safe when using district-issued technology resources. Many districts across the country are investing millions in infrastructure and devices to provide collaborative, problem-solving, and communicative environments for students through technology, but measuring the return on that investment isn't always tangible.

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