In Deep Trouble

September 2024

Surfacing Tech-Powered Sexual Harassment in K-12 Schools





Elizabeth Laird Maddy Dwyer Kristin Woelfel



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.



In Deep Trouble

Surfacing Tech-Powered Sexual Harassment in K-12 Schools

Elizabeth Laird, Maddy Dwyer, and Kristin Woelfel

Illustration and design by Tim Hoagland.

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.



Contents

Executive Summary	6
Key Definitions	9
Introduction	10
NCII, Both Authentic and Deepfake, Is a Significant Issue in K-12 Public Schools	12
How common is authentic and deepfake NCII in K-12 schools?	13
Who is sharing and being depicted in authentic and deepfake NCII?	14
Where is authentic and deepfake NCII being shared?	15
What is the impact of authentic and deepfake NCII?	16
Deepfake NCII significantly affects teachers in addition to students	17
Female and LGBTQ+ Students Are the Most Alert to the Impact of NCII	18
Female students are depicted in deepfake NCII more often than their peers	18
Female and LGBTQ+ students have less confidence in schools' handling of NCII	20
K-12 Schools Are Not Doing Enough to Prevent Students from Sharing NCII	21

Contents

or practices that proactively address authentic or deepfake NCII	21
Schools reactively respond once there has been an incident at their school	23
The lack of school support leaves students and parents in the dark	25
School Responses Focus Heavily on Imposing Serious Consequences on Perpetrators Without Providing Support to Victims of NCII	27
Teachers and students report low awareness of resources available for victims of deepfake NCII	28
In contrast, students who are caught sharing NCII can be subject to significant consequences	28
What Should School Stakeholders Do?	30
Address deficiencies in prevention of deepfakes and NCII	31
Improve support to NCII victims	33
Involve parents in deepfake and NCII policymaking	34
Conclusion	37
Methodology	38
Resources for Victims of NCII	39
Endnotes	42

Executive Summary

Generative artificial intelligence (AI) tools continue to capture the imagination, but increasingly the technology's damaging potential is revealing itself. An often problematic use of generative AI is in the creation and distribution of deepfakes online, especially because the vast majority contain sexually explicit intimate depictions. In the past school year (2023-2024), the rise of generative AI has collided with a long-standing problem in schools: the act of sharing non-consensual intimate imagery (NCII). K-12 schools are often the first to encounter large-scale manifestations of the risks and harms facing young people when it comes to technology, and NCII, both deepfake and authentic, is no exception. Over the past year, anecdotes of children being the perpetrators¹ and victims² of deepfake NCII have been covered by major news outlets, elevating concerns about how to curb the issue in schools. But just how widespread is NCII really? And how well equipped are schools to handle this challenge?

The Center for Democracy & Technology (CDT) conducted surveys of public high school students and public middle and high school parents and teachers from July to August 2024 to understand the prevalence of deepfakes, NCII, and related issues in K-12 schools. CDT's research contributes to better understanding these issues within the U.S. educational context, as research has not yet been publicly published that both quantifies the rising prevalence of deepfakes and NCII in K-12 schools and reflects the perspectives of teachers, parents, and students.

In short, concerns over the widespread nature of NCII, both authentic and deepfake, in public K-12 schools across the country are well-founded:

- NCII, both authentic and deepfake, is a significant issue in K-12 public schools: Students and teachers report substantial amounts of NCII, both authentic and deepfake, depicting individuals associated with their school being shared in the past school year (2023-2024), with the primary perpetrators and victims being students.
- Female and LGBTQ+ students are the most alert to the impact of **NCII:** Students and teachers report that female students are more often depicted in deepfake NCII that is shared by their classmates, and both female and LGBTQ+ students say that they have lower levels of confidence in their schools' ability to prevent and respond to the increasing threat of deepfake NCII.
- Schools are not doing enough to prevent students from sharing NCII: Very few teachers report that their schools have policies and procedures that proactively address the spread of authentic and deepfake NCII. Instead, schools reactively respond once there has been an incident at their school. This unfortunately leaves many students and parents in the dark and seeking answers from schools that are ill-equipped to provide them.
- When schools do respond, they focus heavily on imposing serious consequences on perpetrators without providing support to victims of NCII: Both students and teachers report perpetrators receiving harsh penalties, including expulsion, long-term suspension, and referrals to law enforcement. But students and teachers say that schools provide few resources for victims of NCII, like counseling or help removing damaging content from social media.

 While stakeholders inside the school building, like students and teachers, report that NCII in all its forms is a significant issue in K-12 schools, parents find themselves out of the loop: Parents are significantly less aware of these threats or the harms that they pose. At the same time, parents agree that more education of students is needed and feel they should play a primary role in providing it.

Although addressing NCII, both authentic and deepfake, will require a longterm, multistakeholder approach, one thing is clear - NCII has a significant effect on students, and schools need to do more now to protect them from its harms and create a learning environment that is free from sexual harassment. Efforts to do so should center on bolstering prevention measures, improving victim support, and engaging parents.

Key Definitions

- Authentic non-consensual intimate imagery (Authentic NCII): Sometimes referred to as "revenge porn" (a term that has been retired in the image-based sexual abuse context as insufficient to describe the true abusive nature of the content), authentic NCII involves someone sharing real-life sexually explicit or intimate videos, photos, or audio recordings without the consent of the person who is depicted.
- **Deepfake:** Deepfakes are videos, photos, or audio recordings that seem real but have been digitally manipulated – or faked – to make it seem as though a person has said or done something they have not actually done. Deepfakes are created with AI and are incredibly realistic, making it difficult for humans to distinguish between real-life and fake content.
- Deepfake non-consensual intimate imagery (Deepfake NCII): Sometimes referred to as "deepfake revenge porn" or "synthetic NCII," deepfake NCII are videos, photos, or audio recordings that seem real but have been digitally manipulated - or faked - to show someone in a sexually explicit or intimate manner that they have not actually done. Deepfake NCII is shared without the consent of the person who is depicted and is incredibly realistic.
- Non-consensual intimate imagery (NCII): In this report, NCII refers to both authentic NCII and deepfake NCII.
- Child sexual abuse material (CSAM): Defined by the Department of Homeland Security as any visual depiction of sexually explicit conduct involving a person less than 18 years old. Under this definition, NCII (deepfake or authentic) of minors is also CSAM, and has the potential to carry the penalties associated with creating or distributing CSAM, regardless of the age of the offender.
- Licensed special education teachers: Licensed special education teachers are certified to work with and meet the needs of students with varying disabilities.
- Student with an IEP or 504 plan: Students with a disability that necessitates specially designed instruction receive an individualized education program (IEP) that is documented and reviewed annually. Students who have a disability and who require accommodations in order to participate in school to the same extent as their non-disabled peers receive a 504 plan. Students with disabilities typically have either an IEP or a 504 plan but not both, although it is possible.
- LGBTQ+ student: Students who self identify as lesbian, gay, bisexual, transgender, and queer are a part of the LGBTQ+ community. In settings offering support for youth, Q can also stand for questioning, LGBTQ+ is also used, with the + added in recognition of all nonstraight, non-cisgender identities.3
- **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.

Introduction

Sexually explicit or intimate images shared without the consent of the person depicted - or non-consensual intimate imagery (NCII) - is a long-standing problem in schools. Until recently, NCII has involved authentic images, videos, and audio, and technology has enabled its dissemination through means like social media, messaging apps, and text messages. During the past school year (2023-2024), however, technology in the form of generative Al has also enabled the creation and sharing of fake or synthetic intimate images, videos, and audio that seem real, leading to growing stories about students creating and sharing such deepfake NCII of each other. As of 2023, up to 98 percent of deepfake videos online contain sexually explicit intimate depictions.4

As a general matter, there has been little research on the prevalence of authentic and deepfake NCII in K-12 schools. The Center for Democracy & Technology (CDT) conducted research that aims to close this gap to better understand how students are affected by NCII, which efforts schools have taken to create an environment free from sexual harassment, and what schools and policymakers can do about it.

CDT surveyed parents of students in grades 6-12, students in grades 9-12, and teachers of grades 6-12 to understand their opinions on and experiences with a range of issues, including deepfakes, NCII, and how these two issues have merged.

Though outside the scope of this report's analysis, it is important to note that NCII depicting minors is also child sexual abuse material (CSAM) (formerly known as "child pornography"), as defined in federal criminal statutes dating back to the 1970s. As such, any instance of this conduct can carry severe criminal penalties, including incarceration, substantial fines, and registry as a sex offender, regardless of the age of the offender. Because CSAM is a long-standing issue, resources for victims do exist and can be utilized for victims of NCII under the age of 18.

Recent data from the U.S. Department of Education suggests that 15.32 million high schoolers attend public schools in the U.S., suggesting that millions of students have experiences with deepfakes and NCII (whether authentic or deepfake)...5

Deepfakes (≈ 40%)



6.13 million high school students

NCII (≅39%)



5.97 million high school students

Deepfake NCII (≅15%)



2.30 million high school students



Figure 1. Percentage (%) of students who report hearing about deepfakes, NCII, and deepfake NCII that depicts individuals associated with their school being shared in the past school year (2023-2024)

n = 15.32 million high schoolers attend public schools in the United States. Source: Fast Facts: Back-To-School Statistics, National Center for Education Statistics, perma.cc/C7QD-LHVD.



NCII, Both Authentic and Deepfake, Is a Significant Issue in K-12 Public Schools

Forty percent of students and **29 percent** of teachers say they know of a deepfake depicting individuals associated with their school being shared in the past school year (2023-2024).

Deepfakes can take several forms, which range in their potential negative impact in K-12 schools...



Table 1. Percentage (%) of students and teachers who report hearing about a particular type of deepfake that depicts individuals associated with their school being shared in the past school year (2023-2024)

	Students	Teachers
Deepfake that depicts an individual doing something they did not actually do, but it was not offensive , sensitive, or damaging to the person in the video, photo, or audio	18%	12%
Deepfake that depicts an individual in an offensive or sensitive way, but it was not sexually explicit or intimate (e.g., doing or saying something that could damage their reputation such as making racist statements, performing criminal acts, etc.)	18%	12%
Deepfake that depicts an individual associated with their school in a sexually explicit or intimate manner	15%	11%



Most deepfakes carry some level of risk but perhaps none are more pernicious than those that falsely portray students in an intimate manner. Unfortunately, sharing intimate images of students without their consent is not a new issue in schools.

How common is authentic and deepfake NCII in K-12 schools?

Thirty-nine percent of students and 29 percent of teachers report hearing about NCII that depicts someone associated with their school being shared in the past school year (2023-2024). Although it is currently more common for students and teachers to hear about authentic NCII being shared in K-12 schools, a sizeable percentage of NCII that is shared is deepfake:

- Thirty-one percent of students and 23 percent of teachers report hearing about authentic NCII.
- Fifteen percent of students and 11 percent of teachers report hearing about deepfake NCII.
- Seven percent of students and 5 percent of teachers report hearing about both authentic and deepfake NCII.

Notably, students report higher awareness than teachers and parents of NCII of all types. One potential explanation for students being more aware of NCII than teachers or parents is that they know first-hand that an incident has occurred, but the incident never came to the attention of authority figures, leaving nearby parents and teachers in the dark about the extent of this issue. In fact, only 34 percent of students agree that their school does a good job of catching students who share deepfake NCII, and one in **ten** students who have heard of deepfake NCII depicting individuals associated with their school being shared in the past school year (2023-2024) report that the student who shared it was never caught.

Who is sharing and being depicted in authentic and deepfake NCII?

Although teachers, staff, and other adults can be involved in NCII, as discussed at the end of this section, students are the stakeholders in schools who are the most common perpetrators and victims of authentic and deepfake NCII..."

-	
40	V
	-
М	MP

Table 2. Percentage (%) of students who report that they have heard of authentic or deepfake NCII that depicts individuals associated with their school being shared in the past school year (2023-2024) and say that students are involved in sharing or are subjects

Student Depicted	92%	79%
Student Shared	91%	74%

Authentic NCII

Deepfake NCII

Zooming in closer, male students, LGBTQ+ students, and students with an IEP or 504 plan have more awareness of varying types of NCII. Male students are more likely than female students (18 percent vs. 13 percent of female students) to have heard about deepfake NCII that depicts an individual associated with their school being shared within the past school year (2023-2024). Conversely, LGBTQ+ students are more likely than non-LGBTQ+ students (38 percent vs. 29 percent of non-LGBTQ+ students) to have heard about authentic NCII that depicts an individual associated with their school being shared in the past school year (2023-2024). And students with an IEP or 504 plan are more likely than their peers to know about NCII in all forms (44 percent vs. 36 percent of students without an IEP or 504 plan), and deepfake NCII more specifically (20 percent vs. 13 percent of students without an IEP or 504 plan).

ii Regarding students who have heard of deepfake NCII depicting individuals associated with their school being shared in the past school year (2023-2024), 12 percent are not sure who was depicted and 17 percent are not sure who shared it, explaining the lower absolute percentages for students being depicted and/or sharing deepfake NCII.

Where is authentic and deepfake NCII being shared?

Though there are many mediums through which NCII can be shared, social media or other online platforms (e.g., Snapchat, TikTok, Instagram, etc.) are the most common, as reported by students and teachers. Deepfake NCII, for instance, is most commonly shared via the following methods...

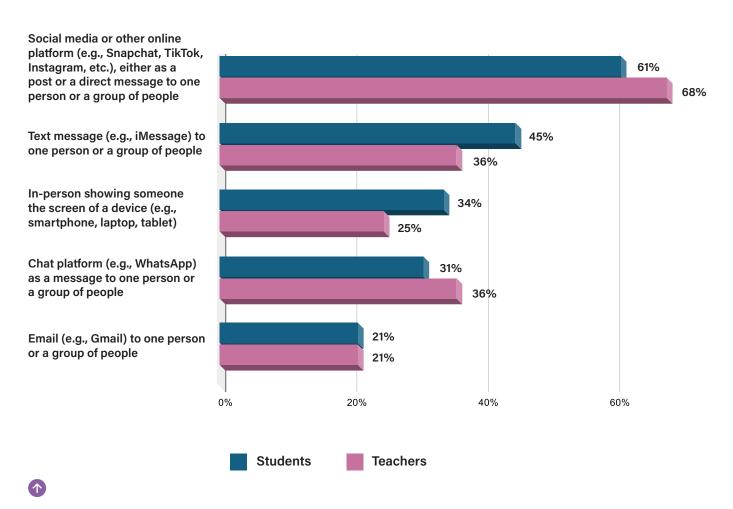


Figure 2. Percentage (%) of students and teachers who report deepfake NCII was shared in this manner

What is the impact of authentic and deepfake NCII?

Teachers, students, and parents share an understanding that authentic and deepfake NCII are equally harmful to the person depicted, as well as pose consequences to the person who shares it:

- **Eighty-three percent** of students agree (**63 percent** strongly agree, **20 percent** somewhat agree) that sharing deepfake NCII is as damaging to the person depicted as sharing real-life NCII.
- Seventy-two percent of teachers and 63 percent of parents say real-life NCII and deepfake NCII are equally harmful.

In addition to understanding its harmful effects, parents, students, and teachers who are aware of authentic or deepfake NCII report higher levels of concern about student privacy, suggesting greater sensitivities and understanding of the harms that technology can pose:

- **Seventy-six percent** of parents who have heard of authentic or deepfake NCII that depicts individuals associated with their child's school being shared in the past school year (2023-2024) are concerned about their child's privacy, versus 57 percent of parents who have not heard of either.
- **Fifty-seven percent** of students who have heard of authentic or deepfake NCII that depicts individuals associated with their school being shared in the past school year (2023-2024) are concerned about their privacy, versus **46 percent** of students who have not heard of either.
- **Forty-three percent** of teachers who have heard of authentic or deepfake NCII that depicts individuals associated with their school being shared in the past school year (2023-2024) are concerned about their students' privacy, versus 32 percent of teachers who have not heard of either.

Deepfake NCII significantly affects teachers in addition to students

Although students are the most likely stakeholders in K-12 schools to be depicted in and to share deepfake NCII, teachers, staff, or other adults associated with the school are also affected. Teachers report that they and their peers are nearly as likely to be depicted in deepfake NCII as students. Among teachers who have heard about deepfake NCII being shared at their school, **43 percent** say that a teacher, administrator, or other school staff member was depicted compared to 58 percent who say that a student was depicted.

This report primarily focuses on students because they are the most common perpetrators and victims of this conduct in schools; however, this research suggests that the harms of deepfake NCII extends to teachers as well. Just as female students are more likely to be depicted in deepfake NCII, women in general are almost twice as likely to be the victim of NCII as men.⁶ Seventy-seven percent of teachers are female, suggesting that they are also at greater risk of experiencing harm and that schools should be updating policies, providing training, and offering resources to protect teachers and students alike.7



Female and LGBTQ+ Students Are the Most Alert to the Impact of NCII

As is the case with many other technological developments seen in K-12 classrooms, NCII disproportionately affects certain groups of students - namely, female and LGBTQ+ students.

Female students are depicted in deepfake NCII more often than their peers

Both students and teachers report that female students are more likely to be depicted in deepfake NCII. Fifty-one percent of students who have heard about deepfake NCII that depicts individuals associated with their school being shared in the past school year (2023-2024) have heard of more cases of females being depicted than males (versus 14 percent who say males are depicted more often). Among teachers, 37 percent who have heard about deepfake NCII that depicts individuals associated with their school being shared in the past school year (2023-2024) have heard of more cases of females being depicted than males depicted (versus **25 percent** who say males are depicted more often).

When asked about the appropriate punishment, students report that they are significantly more likely to support severe consequences against their peers for this conduct than adults. Forty-two percent of students indicate that they do not think sending a student to jail is too harsh a punishment for sharing deepfake NCII - as opposed to parents, of whom only 17 percent and 27 percent approve of law enforcement referral for a first and second offense, respectively.

Perhaps unsurprisingly, more female students are supportive of schools taking significant actions if a student shares deepfake NCII...

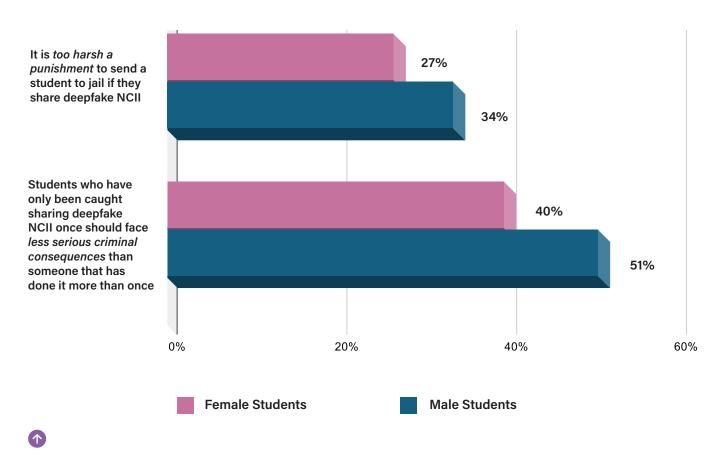
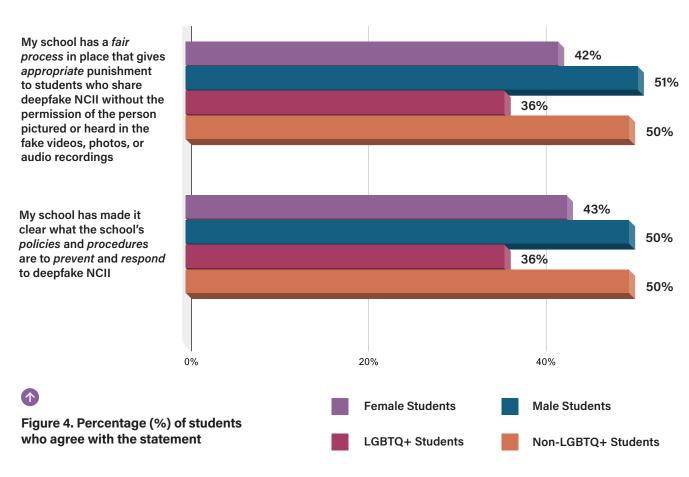


Figure 3. Percentage (%) of students who agree with the statement

Female and LGBTO+ students have less confidence in schools' handling of NCII

Female students are more likely to be the victims of deepfake NCII, and LGBTQ+ students have historically been disproportionately affected by technological tools adopted in the classroom.8 Therefore, it is concerning that both these groups report less confidence in their schools' response and support in cases of deepfake NCII being shared.

For example, female and LGBTQ+ students are less likely to agree that their schools have an adequate process for responding to incidents of deepfake NCII and that they have enough prevention measures...



On a different measure of support, fewer female students than male students agree that their school has made it clear what the potential harms are of sharing deepfake NCII (44 percent vs. **54 percent** of male students).



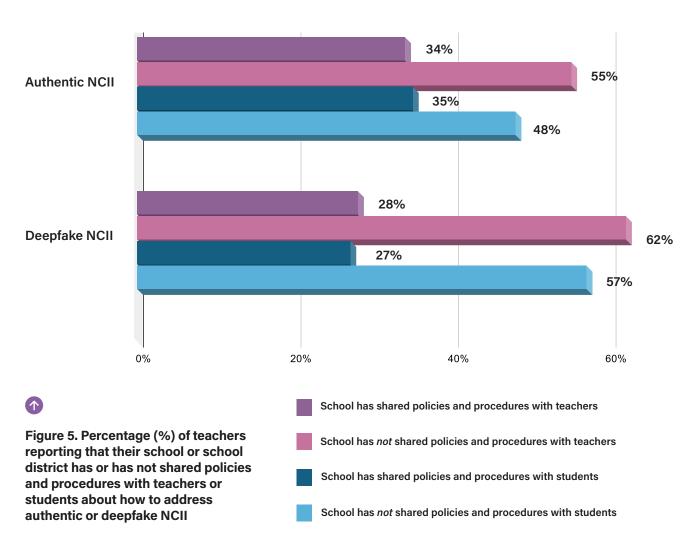
K-12 Schools Are **Not Doing Enough** to Prevent Students from Sharing NCII

Teachers report that schools are doing little to enact policies and practices that proactively prevent students from sharing NCII, as previewed in the previous section.

Few teachers report that their schools have shared policies or practices that proactively address authentic or deepfake NCII

Six in ten teachers surveyed report that they have not heard (either say their school has not provided or are not sure) of their school or school district sharing policies and procedures with teachers about how to address authentic or deepfake NCII.

Unfortunately, teachers also report similarly low percentages of their school or school district providing policies and procedures to students...



This sentiment is echoed in other responses regarding school prevention efforts, especially when it comes to the sharing of deepfake NCII. Generally, over half of teachers say their school has not responded or they are not sure if they have responded to the increased threat of deepfake NCII, and less than half agree that their school has a fair process in place that imposes appropriate consequences, or punishments, on students who share deepfake NCII.

In terms of educating students, only **35 percent** of teachers agree that their school does a good job of educating students about the potential harms of deepfake NCII in ways that prevent them from sharing it. And only **34 percent** of teachers agree that their school has done a good job of communicating to students its policies and procedures for preventing and responding to deepfake NCII.

Teachers themselves say they have received very low levels of guidance from their schools on vital training topics related to appropriately responding to incidents of deepfake NCII being shared by students at their school:

- Sixteen percent of teachers report that their school's teacher training covered how to protect the privacy of a student who was depicted in deepfake NCII.
- **Sixteen percent** of teachers report that their school's teacher training covered how the school or school district's discipline policy applies to students who share deepfake NCII.
- Thirteen percent of teachers report that their school's teacher training covered who to tell within the school or school district if a student receives or views deepfake NCII that depicts another student.
- **Nine percent** of teachers report that their school's teacher training covered how to communicate with the families of students who were involved in an incident of deepfake NCII being shared.

Schools reactively respond once there has been an incident at their school

Teachers at schools that have had an incident of deepfake NCII depicting individuals associated with their school being shared in the past school year (2023-2024) report higher levels of response, guidance, and training for teachers and students. In fact, 80 **percent** of teachers who have heard of a deepfake NCII incident occurring at their school report that their school has addressed the threat in some way, compared to **38 percent** of teachers who have not heard of a school-related deepfake NCII incident in the past school year (2023-2024).

On the policy front, those at schools where deepfake NCII that depicts individuals associated with their (or their child's) school was shared in the past school year (2023-2024) are twice as likely to have received school policies and procedures about how to address deepfake NCII. In particular, among teachers who have heard of a deepfake NCII incident occurring at their school within the past school year (2023-2024), 54 percent say their school has shared policies and procedures with them compared to 25 percent of teachers who have not heard of a school-related deepfake NCII incident.

This suggests that schools are reactively addressing deepfake NCII and creating policy when it happens, but not before...

Updated student discipline policies to address the consequences, or punishments, of sharing deepfake NCII

Updated sexual harassment policies to specifically include deepfake NCII (e.g., through school board policies, student codes of conduct, or Title IX policies)

Provided resources to help individuals who were depicted in deepfake NCII report the incident to the school

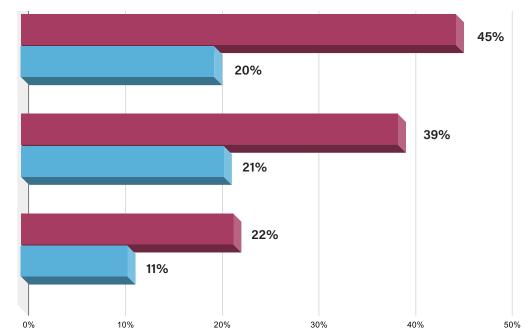




Figure 6. Percentage (%) of teachers who say their school has responded in the last school year (2023-2024) to address deepfake NCII in this way

Heard of a deepfake NCII incident at their school Have not heard of a deepfake NCII incident at their school

The lack of school support leaves students and parents in the dark

Just as teachers report receiving very low levels of guidance about how to respond to deepfake NCII, students report extremely low levels of information from their schools about deepfake NCII and how to respond:

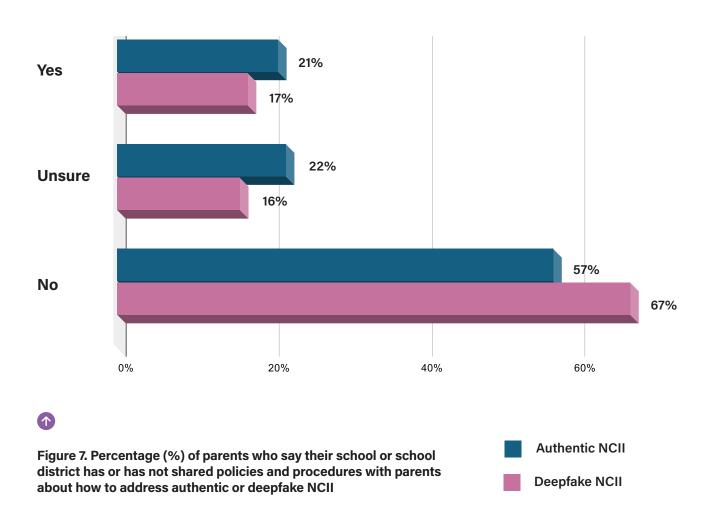
- Thirteen percent of students say that their school has explained that sharing deepfake NCII is harmful to the person depicted.
- Fifteen percent of students say that their school has explained who to tell at the school if they see or hear about deepfake NCII.
- **Nineteen percent** of students say that their school has explained to them what deepfake NCII is.

Additionally, students report that their schools are not discussing the consequences of sharing deepfake NCII, which can serve as an important measure of prevention:

- Twenty percent of students report that their school has made it clear how a student would be punished by the school if they shared deepfake NCII.
- Thirteen percent of students say that their school has discussed or covered that sharing deepfake NCII can be punished severely, including civil and criminal penalties.

Parents are less aware of deepfakes and NCII in all forms. In the past school year (2023-2024), **78 percent** of parents report that they have not heard of any type of deepfake being shared, and 83 percent of parents report that they have not heard of any NCII being shared in school, both of which mark a significant departure from what those inside the school building, like students and teachers, report.

Moreover, most parents say their child's school has provided them with no guidance on their policies and procedures, and many others are unsure, underscoring how little parents are aware of this issue in schools compared to students and teachers...





School Responses Focus Heavily on **Imposing Serious** Consequences on **Perpetrators Without Providing Support to** Victims of NCII

NCII is not a new issue in K-12 schools, and many of the same resources and supports available for authentic NCII are relevant and necessary when a student becomes a victim of deepfake NCII.

Unfortunately, schools do a poor job of providing resources to victims, while simultaneously enforcing the harshest penalties on perpetrators.

Teachers and students report low awareness of resources available for victims of deepfake NCII

In addition to having policies and procedures to prevent incidents of NCII, victim-centered policies and procedures are crucial to responding appropriately after the fact. Only **one in ten** students say that their school has provided critical resources to help students who were depicted in deepfake NCII:

- **Ten percent** report that their school provided resources to help the victim report the incident to the police.
- **Ten percent** report that their school provided resources to help the victim have the content removed from online platforms where it was shared.
- **Ten percent** report that their school provided resources to help the victim receive counseling after the incident.

Most teachers and students do not think their school has the appropriate support mechanisms in place. Only 36 percent of teachers agree that their school has a fair process in place that adequately supports victims of deepfake NCII. Similarly, among students, just 37 percent agree that their school has an effective way to help students who were victims of deepfake NCII. Among LGBTQ+ students, this is even lower - only 29 percent of LGBTQ+ students agree, versus 41 percent of non-LGBTQ+ students.

Parents also show low levels of confidence. Only about **one third** of parents agree that their child's school has an effective way to help students who have been the victim of deepfake NCII, and **35 percent** of parents report that they are not sure.

In contrast, students who are caught sharing NCII can be subject to significant consequences

Most schools take strong action when a student is caught sharing NCII. Of teachers who have heard about students sharing authentic NCII, only 1 percent report that their school did nothing in response, and only **3 percent** of teachers who have heard about students sharing deepfake NCII said that no punishments were given. Students also report that school inaction is low, with only 8 percent of students who have heard about students sharing deepfake NCII said that no punishments were given when the perpetrator was caught.

In fact, teachers and students report that significant consequences are imposed on students who are caught sharing authentic and/or deepfake NCII. **Sixty-eight percent** of teachers who are aware of authentic NCII depicting individuals associated with their school being shared in the past school year (2023-2024) report that a student was either referred to law enforcement, expelled, or subjected to long-term suspension (e.g., more than three days) for sharing authentic NCII. Seventy-one percent of teachers who are aware of deepfake NCII depicting individuals associated with their school being shared in the past school year (2023-2024) report the same consequences for students who shared deepfake NCII.

Less severe consequences, like short-term suspension and community service, are not as common...



Table 3. Percentage (%) of teachers who have heard about deepfake NCII depicting individuals associated with their school being shared in the past school year (2023-2024) reporting the consequences for students who were caught sharing deepfake NCII

Law enforcement referral	38%
Long-term suspension	33%
Counseling	29%
Detention	22%
Expulsion	21%
Short-term suspension	18%
Restorative justice practices	18%
Community Service	14%
No consequences	3%
Don't know	3%

Teachers

What Should School Stakeholders Do?

Our research shows that schools that have experienced these issues are more likely to respond by taking action and that teachers, students, and parents are more knowledgeable and prepared as a result. Taking urgent and decisive action to curb these harms is crucial, and one that carries significant legal consequences for perpetrators and schools themselves. Recognizing the harm of image-based sexual abuse, forty-nine states have passed laws that enact civil and criminal penalties for engaging in this type of conduct.⁹ Additionally, the federal government and many states are contemplating new bills that would extend these civil and criminal penalties to anyone, including minors and first-time offenders, who shares deepfake NCII.

Because schools are already responsible for creating an environment free from sexual harassment, they may also face legal and financial consequences for failing to address the issue of NCII. The U.S. Department of Education has clearly stated that NCII, authentic and deepfake, can create a hostile learning environment and that schools are obligated to evaluate online conduct using the same factors that are used to determine whether in-person conduct creates a hostile environment.¹⁰ Additionally, referring incidents to law enforcement does not alleviate a school of its responsibility to address sexual harassment under Title IX - proper training of all those involved in handling a Title IX allegation, including NCII, is an essential obligation in ensuring an environment free from discrimination.11

To fulfill these responsibilities and create an environment that is free from sexual harassment, schools should, among other steps, take the following actions:

Address deficiencies in prevention of deepfakes and NCII

Without efforts toward appropriate response and educational prevention, current NCII policies and practices threaten to reinforce the school-to-prison pipeline. For victims, image-based sexual abuse can result in trauma and contribute to higher rates of school pushout and higher risk of eventual entrance to the school-to-prison pipeline.^{12, iii} For perpetrators, law enforcement intervention can be an introduction to the school-to-prison pipeline as well. Although law enforcement can act as an important form of deterrence, it cannot be the largest or only piece of the puzzle.

Both students and teachers report low awareness of efforts by their schools to proactively curb the sharing of authentic and deepfake NCII. Among parents, only 37 percent agree with the statement that, "My school does a good job of educating students about the potential harms of deepfake NCII that prevents students from sharing it."

iii Pushout refers to the punitive discipline practices schools use, which exclude students from class and often push them out of school altogether. What You Need to Know About School Pushout and How to Combat It, Girls Inc., perma.cc/F9GM-3D2D. Our research reveals that schools are providing little guidance to teachers, students, and parents; however, parents show strong support for more action and a desire to learn more about how to prevent deepfake NCII from happening in the first place...



Table 4. Percentage (%) of parents who say it is important that their school addresses deepfake NCII in this way

Explain to students what deepfake NCII is and how it can be harmful to the person in the video, photo, or audio	77%
Update existing sexual harassment policies to specifically address deepfake NCII	76%
Communicate to parents about deepfake NCII, such as how it can be harmful to students and what the school is doing about it (e.g., updating policies, etc.)	78%

At a minimum, schools should update their Title IX policies to explicitly include online conduct that creates a hostile environment for students at school, including NCII, and meaningfully communicate these policies to teachers, students, and parents. Teachers and Title IX coordinators should receive adequate training in responding to allegations of this conduct, including how to report the conduct to the school, how to protect the privacy of the students involved, and how to take a victim-centered approach in supporting an individual depicted in NCII. Schools should also adopt educational preventative measures around NCII by taking actions like directly addressing the issue in curriculum or including it in broader sexual harassment or digital citizenship efforts. Overall, a larger emphasis on proactive efforts to curb this conduct is needed to prevent worse outcomes for all those involved.

Parents

Improve support to NCII victims

In addition to robust prevention efforts, more must be done to support victims after the fact.

While parents indicate a strong desire for various support measures at school, teachers report very little is available...

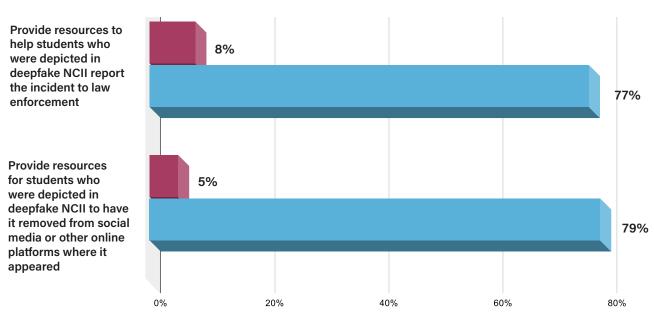




Figure 8. Percentage (%) of teachers who report that their school has addressed deepfake NCII in this way and % of parents who say it is important that their school addresses deepfake NCII in this way

Teachers report school provided

Parents support for school providing

In addition to resources that could be provided directly to the victim, teachers indicate they have received little information on how to support victims themselves. Only 9 percent of teachers report receiving guidance about how to communicate with a victim's family after the fact. When asked about the resources the school provides directly to students, only 12 percent of teachers report that the school has provided information to help victims report the incident to the school and navigate the response process.

Support for victims of NCII is critical to mitigate the harms and follow-on challenges that trauma can cause for students in school (like school pushout, decreased academic achievement, and behavioral changes that lead to disciplinary issues). As a start, schools should create and maintain up-to-date resources that are clearly communicated to students and cover:

- Who at the school a student can confidentially report the incident
- How to have the content removed from online platforms to which it was posted (such as the National Center for Missing & Exploited Children's public resource, "Take It Down");
- How to report the incident to law enforcement;
- How to request changes to scheduling arrangements if desired and possible, and;
- How to seek counseling about the incident.

For teachers and staff, schools should provide training on traumainformed responses, including the importance of confidentiality and danger of victim-blaming language (e.g., questioning whether/ why the student took or sent a photo of themselves). Teachers and other staff should be able to point victims to an appropriate point of contact who can promptly refer the student to obtain the resources discussed above.

The impact of NCII is complex and requires a trauma-informed response process. Inadequate support at any part of the process (such as the handling of the initial complaint) might further compound the harm of the incident, and discourage other students from coming forward in the future. Although consequences for the perpetrator might create a sense of justice, this is not sufficient on its own to adequately support the victim.

Involve parents in deepfake and NCII policymaking

Parents have made it clear that they have opinions on schools' deepfake and authentic NCII prevention processes. Currently, 13 **percent** of parents report having been asked for their input from their child's school on deepfake NCII policies and procedures,

whereas **59 percent** of parents want to be consulted. And **45 percent** say that parents should be the primary person responsible for talking to their children about NCII, more than any other person or entity, despite their gaps in knowledge as highlighted previously in this report.

With respect to punishment, parents' opinions on appropriate responses to deepfake NCII do not entirely align with how schools are actually allocating consequences. Although students are not opposed to harsh penalties for their peers who share deepfake NCII, parents tend to prefer less harsh responses and feel there should be leniency for first time offenders. For both a student's first and subsequent offenses, the most preferred response among parents is to teach the student about deepfake NCII and its harmful impacts on the person depicted.

Although parents do not prefer that schools apply harsher consequences on students, particularly if it is a student's first offense, teachers report that those responses are among the most common...

Teacher-reported consequences
that their school has imposed in
the past school year

Parent-suggested consequence for a student's first offense

Parent-suggested consequence for a student who has done it before

Highest ranked option	Law enforcement referral	Teach student who shared deepfake NCII about its harmful impacts	Teach student who shared deepfake NCII about its harmful impacts
Second highest ranked option	Long-term suspension	Counseling	Counseling; Law enforcement (tied)
Third highest ranked option	Counseling	Give the student a warning	Long-term suspension; Expulsion (tied)



Table 5. Rank order of teachers who report the consequences for students who were caught sharing deepfake NCII that their school imposed in the past school year (2023-2024) compared to the rank order of parents who selected this response as one of the most important actions for schools to take

These figures show that parents' preferences and school actions as reported by teachers are not aligned, nor are parents given the opportunity to share their input, despite seeing themselves as the figures best positioned to engage their children about this issue. Although schools do not have to adhere to parent preferences, they should include parents in the deepfake and NCII policymaking process, both to educate parents further on the issue and to include their perspective in developing a comprehensive response.



Conclusion

NCII has been a longstanding problem in schools. This problem has been exacerbated by easy public access to generative AI tools built for creating NCII, which has led to the proliferation of deepfake NCII in K-12 schools. As such, students – particularly protected classes such as female and LGBTQ+ students - are most alert to this new threat vector in their learning environments. And our data shows that schools are falling short in meeting the rising threat of NCII. Without meaningful efforts toward educational prevention, everyone involved is worse off.

Schools still have the opportunity to take action to help protect students from these harms and create a learning environment that is free from sexual harassment. Our findings suggest that schools must, among other steps, address deficiencies in prevention measures, improve support for victims of NCII, and involve parents in a two-way dialogue to develop policies about deepfakes and NCII. Though this issue requires a multistakeholder approach, schools are uniquely positioned to provide meaningful support for students who so desperately need it in the digital age.



Methodology

This year's surveys comprise CDT's seventh poll among teachers, sixth poll among parents, and fourth poll among **students.** The surveys measure and track changes in perceptions, experiences, training, engagement, and concerns about student data privacy, student activity monitoring, generative AI, NCII, and deepfakes.

Online surveys of nationally representative samples of 1,316 9thto 12th-grade students, 1,006 6th- to 12th-grade teachers, and 1,028 6th- to 12th-grade parents were fielded between June and August 2024. 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 gender, race, ethnicity, and sexual orientation.

Resources for Victims of NCII

The following resources and services can provide a multifaceted response protocol for victims seeking support, and for those seeking to support victims of NCII.

Some, like the Cyber Civil Rights Initiative's Safety Center, were created specifically to address NCII. Others, like National Center for Missing and Exploited Children's Take It Down, began as a tool to combat the spread of CSAM more generally, and so aptly function to address NCII of minors as well.

CCRI Safety Center - Cyber Civil Rights Initiative

The CCRI Safety Center provides access to important information such as a roster of attorneys, a list of NCII laws by state, and a stepby-step guide for individuals who think they may have been a victim of NCII: https://cybercivilrights.org/ccri-safety-center/

Emotional and Peer Support - National Center for Missing and Exploited Children (NCMEC)

NCMEC provides services for victims, survivors, siblings, and caregivers seeking mental health and peer support through a trauma-centered approach that creates a collaborative environment to help victims and families identify areas of need and communitybased resources to help with healing and reconnecting: https:// www.missingkids.org/gethelpnow/support

National Sexual Assault Hotline - RAINN

RAINN is the nation's largest anti-sexual violence organization. RAINN created and operates the National Sexual Assault Hotline in partnership with more than 1,000 local sexual assault service providers across the country.

Online chat hotline: https://hotline.rainn.org/online

Spanish online chat hotline: https://hotline.rainn.org/es

• **Telephone hotline:** 800-656-4673

Take It Down - National Center for **Missing and Exploited Children (NCMEC)**

Take It Down is a free service that can help individuals remove or stop the online sharing of nude, partially nude, or sexually explicit images or videos taken or created of individuals when they were under 18 years old. Victims can remain anonymous while using the service and do not have to send the images or videos to anyone. Take It Down will work on public or unencrypted online platforms that have agreed to participate: https://takeitdown.ncmec.org

Call center number: 1-800-843-5678

Victim Connect - National Center for Victims of Crime

VictimConnect Resource Center is a weekday phone, chat, and textbased referral helpline operated by the National Center for Victims of Crime. Services are available for all victims of crime in the United States and its territories. The Victim Assistance Specialists receive extensive training and mentoring to provide emotional support, information, and referrals that empower visitors as they navigate the physical, emotional, legal, and financial consequences of crime. Referrals are tailored to individual needs and can be made to local, state, and national organizations.

Online chat hotline: https://victimconnect.org/

Call or text hotline: 855-484-2846

Endnotes

- 1 Kat Tenbarge, Beverly Hills Middle School Expels 5 Students After Deepfake Nude Photos Incident, NBC News (Mar. 8, 2024), perma.cc/EK6S-BLL7.
- 2 Natasha Singer, Teen Girls Confront an Epidemic of Deepfake Nudes in Schools, The New York Times (Apr. 8, 2024), perma.cc/ER76-Y4YE.
- 3 Glossary of Terms: LGBTQ, GLAAD Media Reference Guide (11th Edition), perma.cc/3993-
- 4 2023 State of Deepfakes: Realities, Threats, and Impact, Security Hero (2023), perma.cc/33DK-YL99.
- 5 Fast Facts: Back-To-School Statistics, National Center for Education Statistics, perma.cc/C7QD-LHVD.
- Dr. Asia A. Eaton, Dr. Holly Jacobs, and Yanet Ruvalcaba, 2017 Nationwide Online Study Of 6 Nonconsensual Porn Victimization And Perpetration, Cyber Civil Rights Initiative (Jun. 2017), perma.cc/568M-NXMW.
- 7 Women's Equality Day: The Gender Wage Gap Continues, National Center for Education Statistics (Aug. 26, 2022), perma.cc/X5YV-XNV6.
- Elizabeth Laird, Maddy Dwyer & Hugh Grant-Chapman, Off Task: EdTech Threats to Student 8 Privacy and Equity in the Age of AI, The Center for Democracy & Technology (Sep. 20, 2023), perma.cc/8Q9A-NNNV.
- 9 Nonconsensual Distribution of Intimate Images, Cyber Civil Rights Initiative, perma.cc/CK9H-7QQJ.
- 10 89 Fed. Reg. 33474, 33515 (April 29, 2024).
- Naaz Modan, San Diego Unified Violated Title IX 'More Often Than Not' Over 3 Years, K-12 Dive 11 (Aug. 14, 2024), perma.cc/9QF3-49BV.
- 12 The Sexual Abuse to Prison Pipeline: The Girls' Story, National Institute of Corrections, perma. cc/MJU4-VDXS.;
 - Stopping School Pushout For: Girls Who Have Suffered Harrassment and Sexual Violence, National Women's Law Center, perma.cc/UA9M-N966.;
 - Sandra B. Simkins, Amy E. Hirsch, Erin McNamara Horvat and Marjorie B. Moss, School to Prison Pipeline for Girls: The Role of Physical and Sexual Abuse, Children's Legal Rights Journal (2004), perma.cc/C2L2-4L6U.

cdt.org

Center for Democracy & Technology

1401 K Street NW, Suite 200 Washington, D.C. 20005

202-637-9800

