Deepfakes, AI, and Intimate Images

An Overview of the Issue and Utah Statutes
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This brief identifies trends nationally, and in Utah, regarding the production and distribution of online exploitative material, with specific attention to child abuse and revenge porn. It also provides an overview of recent Utah legislation meant to address those trends and a 50-state comparison.

KEY FINDINGS

➢ Online sexual abuse, such as child sexual abuse material (CSAM) and nonconsensual pornography, have dramatically increased over the past five years. Advancing sophistication in artificial intelligence (AI) technology presents new challenges for law enforcement to combat this material.

➢ Utah's Internet Crimes Against Children Task Force (ICAC) has confirmed AI-related CSAM cases in Utah.

➢ 80% of nonconsensual pornography is produced with the intent to threaten or humiliate the victim.

➢ The Utah State Legislature recently passed bills to empower law enforcement with tools to investigate and prosecute crimes related to AI-facilitated online sexual abuse.

➢ At least 18 states, including Utah, have laws addressing nonconsensual pornography and CSAM.

Background

Recent advancements in AI have introduced new challenges for law enforcement to combat the proliferation of exploitative material on the internet. For example, generative AI (GenAI) modules are image, audio, video, and text-generating platforms that can generate many types of synthetic media. These modules make it difficult to distinguish between synthetic and authentic media. Federal intelligence agencies indicate that GenAI is projected to exceed $100 billion in revenue by 2030 at a growth rate of around 35% each year.[1]

This rapid advancement of GenAI has been leveraged to produce CSAM and pornography.[2] In many cases, GenAI is used to create pornographic deepfakes, which are explicit images or videos in which the face of a real individual is mapped onto an intimate image or scene they played no part in producing.[3] This results in a form of "image-based sexual abuse" or "nonconsensual pornography".[4] When the victims of nonconsensual deepfake pornography are minors, these images or videos are categorized as CSAM.

To put the potential GenAI threat into perspective, anyone featured in a photo, video, or audio recording that is then distributed via social media, online, or electronically is at risk of having that media altered to create a deepfake. As a result, many states are passing laws to address this new form of fraud and exploitation, Utah chief among them.[5]

GenAI Methods

The National Center for Missing and Exploited Children (NCMEC) has identified four methods whereby GenAI can be used to produce child-related sexually explicit content.

Text - Chat
Entering text to make a chat model engage in sexual conversations as a child.

Text - Text
Entering text to produce guides on how to groom and sexually abuse children.

Text - Image
Entering text to create CSAM or alter media to make it sexual.

Image - Image
Uploading CSAM to create new CSAM or uploading non-sexual images to create CSAM.

By the Numbers: GenAI and Child Abuse

Children are particularly vulnerable to the consequences of exploitative material created by GenAI. The following sections identify reports of online child abuse nationally and in Utah.

National Trends: 2021 - 2023

NCMEC receives around 99,000 reports of online child abuse per day.[6] In 2023, total reports exceeded 36.2 million, a 13% increase from 2022. See Table 1 for a complete breakdown of the number of reports NCMEC received by category from 2021 to 2023.[7]

Of the 36.2 million reports, 4,700 were GenAI depictions of child abuse. More than 70% of the GenAI reports were from traditional online platforms. In other words, a platform whereby users can view content and information, but users cannot produce new material using GenAI.[8] It is likely that GenAI depictions of child abuse will continue to increase as the industry rapidly grows.

Table 1: CyberTipline Reports by Category, Nationally 2021-2023

Category	2021	2022	2023
Child Pornography (Possession, Manufacture, and Distribution)	29,309,106	31,901,234 *(+9%)*	35,925,098 *(+13%)*
Misleading Words or Digital Images on the Internet	5,825	7,517 *(+29%)*	8,446 *(+12%)*
Online Enticement of Children for Sexual Acts	44,155	80,524 *(+82%)*	186,819 *(+132%)*
Child Sex Trafficking	16,032	18,336 *(+14%)*	17,353 *(-5%)*
Unsolicited Obscene Material Sent to a Child	5,177	35,624 *(+588%)*	45,746 *(+28%)*
Misleading Domain Name	3,304	1,948 *(-41%)*	6,883 *(+253%)*
Child Sexual Molestation	12,458	12,906 *(+4%)*	18,021 *(+40%)*
Child Sex Tourism	1,624	940 *(-42%)*	2,002 *(+113%)*
Total	29,397,681	32,059,029 *(+9%)*	36,210,268 *(+13%)*

Source: National Center for Missing and Exploited Children, 2021-2023

Utah Trends: 2019 – 2024

According to Utah's ICAC, the total number of online child abuse reports they receive from NCMEC has increased each year since 2019 (see Figure 1). Between 2022 and 2023, there was a 71% increase in these reports.[9, 10] As of July 8, 2024, the number of reports received by Utah's ICAC was 3,475, making it likely the number of reports in 2024 will outpace those in 2023.

In correspondence with staff, Utah's ICAC indicated GenAI child sexual abuse cases are occurring in Utah.[11] However, the total number of local cases is unknown. As the amount of online child sexual abuse reports allocated to Utah continues to increase, the more likely they are to include GenAI incidents.

Figure 1: Total Number of CyberTipline Reports Utah ICAC Received from NCMEC, 2019-2024
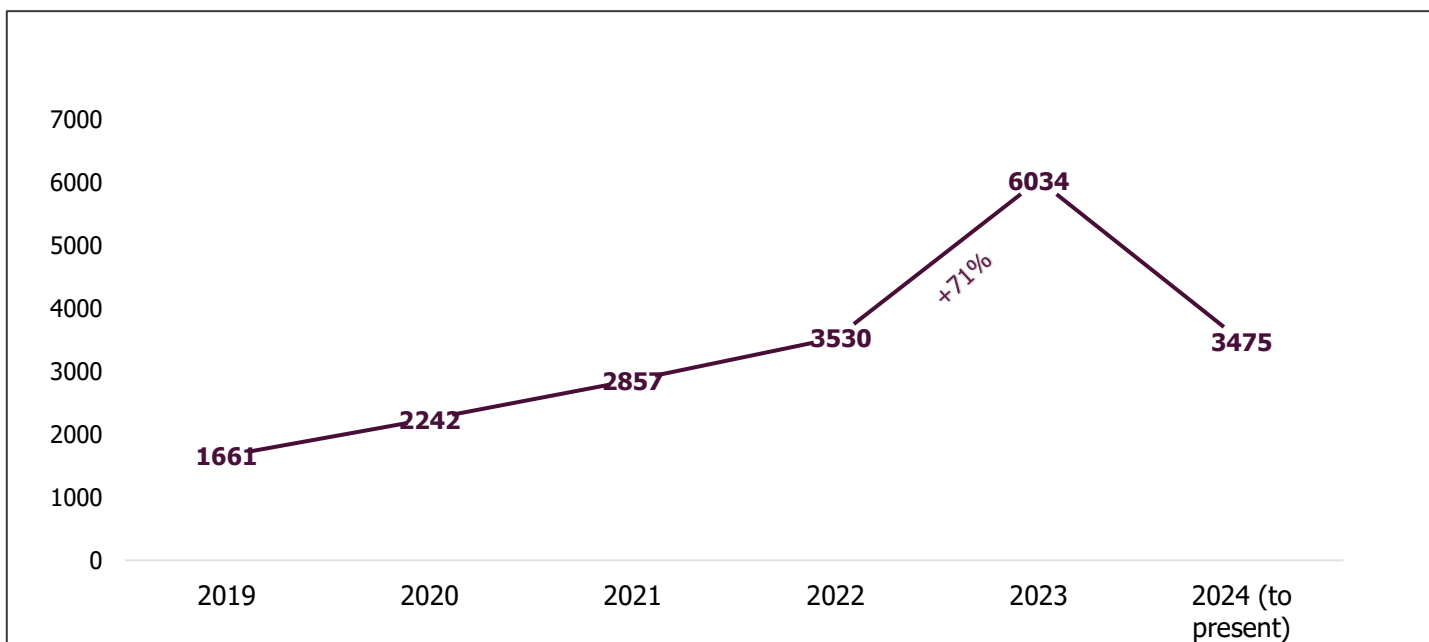
Source: National Center for Missing and Exploited Children, 2019-2024

By the Numbers: GenAI and Revenge Porn

According to the National Association of Attorney Generals, 80% of nonconsensual porn is revenge porn.[12] Revenge porn is when a sexual image or video of an individual is shared without consent to threaten or humiliate the individual.[13,14] Sextortion, or extortion in which the perpetrator threatens to release sexually compromising material, can also be a form of revenge porn.[15] 95% of nonconsensual deepfake pornography victims are women.[16] GenAI's accessibility and advancement make it easier for individuals to generate sexual deepfakes to use in revenge porn incidents.

> *The United Kingdom's "Revenge Porn Helpline" received more than twice as many reports of revenge porn in 2023 than 2022, from 9,000 to 18,426.*

Source: Paresh Dave, "Google's Nonconsensual Explicit Images Problem Is Getting Worse." *WIRED*, July 8, 2024.

Utah Legislation on GenAI Intimate Images

Since 2020, the Utah Legislature has introduced at least ten bills and one resolution relating to AI. All but two of those were introduced in 2024. Table 2 provides a *non-exhaustive* overview of GenAI laws passed by the Legislature that relate to possessing, distributing, or producing GenAI intimate images or using GenAI to commit crimes.[17]

Table 2: Overview of Passed Utah Bills that Relate to GenAI

U.C.A. 76-5b-205 Unlawful Distribution of a Counterfeit Intimate Image	
• *H.B. 148 Artificial Pornographic Images Amendments, 2024*	
• *S.B. 66 Criminal Offense Amendments, 2024*	
• *H.B. 193 Intimate Image Distribution Prohibition, 2021*	
Overview	**Additional Notes**
• Defines "counterfeit image" as an image or video altered "to depict the likeness of an identifiable individual" in sexually explicit ways without consent. • This crime is only for distribution, not possession or production.	• Distributing a counterfeit intimate image without the consent of the person depicted is a **class A misdemeanor**. • If the counterfeit image is of a child (anyone under 18 years old) and distributed by an adult, it is an aggravated incident and **third-degree felony**. • If both the actor and victim are minors it is a **class A misdemeanor**.

U.C.A. 76-5b-201 Sexual Exploitation of a Minor	
• *H.B. 238 Sexual Exploitation of a Minor Amendments, 2024*	
Overview	**Additional Notes**
• Sexual exploitation of a minor occurs when the actor knowingly <u>possesses</u> or <u>intentionally views</u> CSAM. CSAM is defined in Section 76-5b-103. If the victim of deepfake porn is a minor and the image is never distributed, the actor can still be charged under this statute.	• Sexual exploitation of a minor is a **second-degree felony**.

U.C.A. 76-5b-201.1 Aggravated Sexual Exploitation of a Minor	
• *H.B. 238 Sexual Exploitation of a Minor Amendments, 2024*	
Overview	**Additional Notes**
• Aggravated sexual exploitation of a minor occurs when the actor intentionally <u>distributes</u> CSAM or <u>knowingly produces</u> CSAM. • Aggravated sexual exploitation also applies when the parent or guardian permits the child to be exploited.	• If the child depicted is over 14 or postpubescent, it is a **second-degree felony**. • If the victim is under 14, it is a **first-degree felony**. • If the actor is under 18 at the time of the offense, either scenario is a **second-degree felony**.

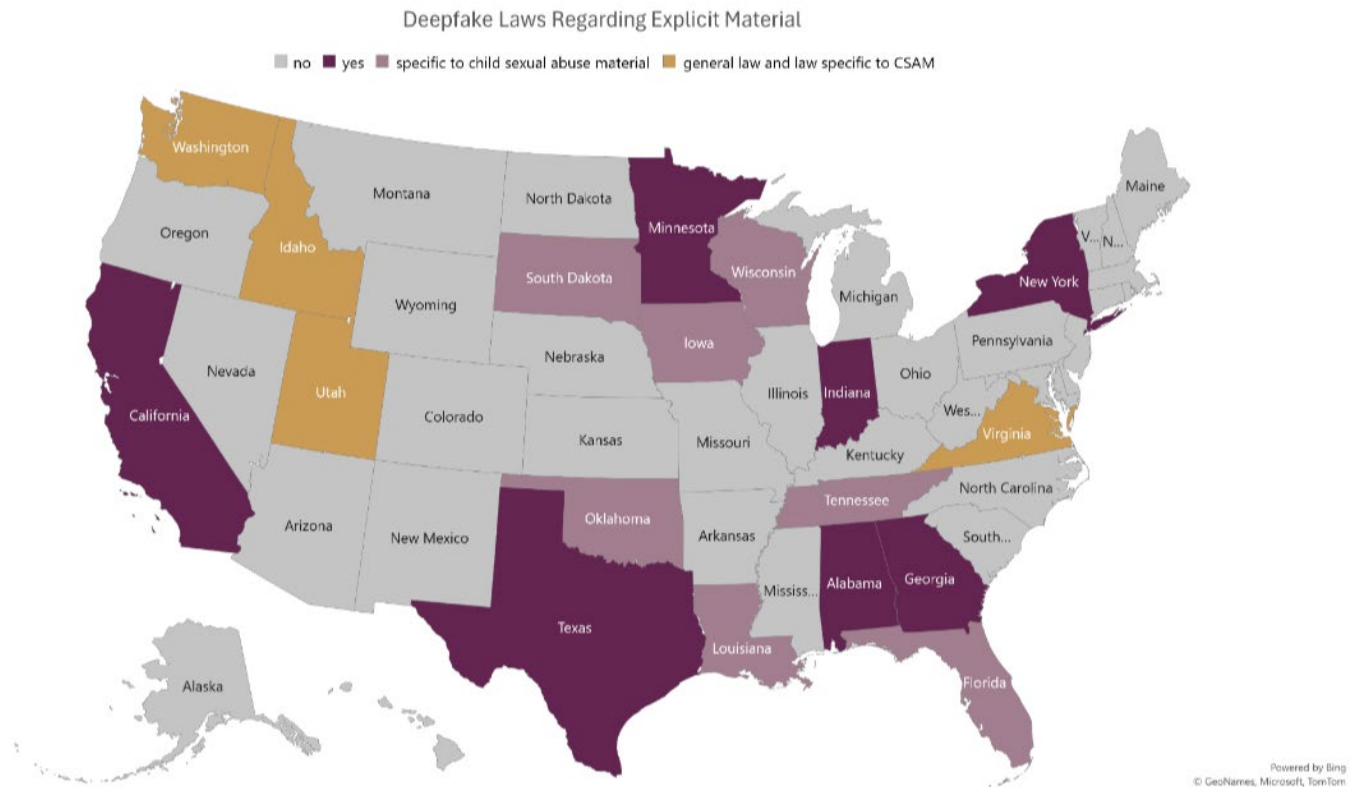| **U.C.A. 76-2-107 Commission of Offense with Aid of Generative Artificial Intelligence**	
• *S.B. 149 Artificial Intelligence Amendments, 2024*	
Overview	**Additional Notes**
• An actor is guilty of an offense if they "commit the offense with the aid of a generative artificial intelligence" or "intentionally promotes or otherwise causes a generative artificial intelligence to commit the offense."	• Any crime committed using GenAI can be prosecuted as **the original crime**.

Source: Utah Annotated Code, 2021-2024

Other State Legislation on GenAI Material

So far in the 2024 legislative season, 40 states have introduced bills regarding sexually explicit deepfakes and deepfakes used to influence voter opinion. At least 18 U.S. states[18], including Utah, have laws on sexually explicit deepfakes[19, 20] (see figure 2).

Figure 2: Map of U.S. States and Current Laws on GenAI Created Sexually Explicit Material

Deepfake Laws Regarding Explicit Material

no ■ yes ■ specific to child sexual abuse material ■ general law and law specific to CSAM

[Click here for an interactive U.S. map that gives a summary of each state's deepfake laws on explicit material.](#)

Source(s): *National Conference of State Legislatures, 2024 & MultiState, 2024*

Conclusion

GenAI is a rapidly growing industry that may exacerbate the creation and distribution of harmful exploitative material, particularly CSAM and revenge porn. While it is likely reports of GenAI CSAM and revenge porn will increase, Utah has passed legislation that enables law enforcement to investigate and prosecute these crimes.

OPPORTUNITIES FOR FURTHER RESEARCH

While we typically discuss the negative impacts of AI, areas for further research may include investigating how GenAI can help improve public safety. For example, AI has the potential to help criminal justice departments identify patterns of criminal behavior or link cases to each other.[21] Some law enforcement agencies in the U.S. are even creating "artificial intelligence officer" positions to help identify how AI can assist with investigations and stay ahead of the ever-evolving AI environment.[22]

Endnotes

[1] NSA, FBI, CISA, "Contextualizing Deepfake Threats to Organizations." *Cybersecurity Information Sheet*, September 2023. CSI-DEEPFAKE-THREATS.PDF (defense.gov)

[2] Anthony Cuthbertson, "OpenAI boss reveals what 'scares him most' about AI." *The Independent*, Monday, February 06, 2023. "https://www.independent.co.uk/tech/chatgpt-openai-ai-risks-revenge-porn-b2276613.html

[3] GAO, "Science & Tech Spotlight: Deepfakes." *Science Technology Assessment and Analytics*, February 2020. https://www.gao.gov/assets/gao-20-379sp.pdf

[4] Kara Kelleher, "Revenge Porn and Deep Fake Technology: The Latest Iteration of Online Abuse." *Boston University School of Law, Dome.* August 10, 2023. https://sites.bu.edu/dome/2023/08/10/revenge-porn-and-deep-fake-technology-the-latest-iteration-of-online-abuse/

[5] According to the National Conference of State Legislatures, at least 40 states have pending legislation in 2024 that addresses "deceptive audio or visual media." *Deceptive Audio or Visual Media ('Deepfakes') 2024 Legislation.* National Conference of State Legislatures. May 07, 2024. https://www.ncsl.org/technology-and-communication/deceptive-audio-or-visual-media-deepfakes-2024-legislation#:~:text=Provides%20that%20it%20is%20unlawful,does%20not%20consent%20to%20the

[6] John Shehan, "Addressing Real Harm Done by Deepfakes." March 12, 2024. final-written-testimony-john-shehan-house-oversight-subcommittee-hearing.pdf (missingkids.org)

[7] These numbers are based on reports from NCMEC's CyberTipline. The CyberTipline is a national reporting system where the public and electronic service providers can report incidents of online child abuse.

[8] NCMEC, "CyberTipline 2023 Report." 2023. CyberTipline Data (missingkids.org)

[9] Utah Attorney General's Office, email message to author, July 8, 2024.

[10] The Utah Attorney General's Office indicated the increase in reports is likely that there is more access to this material and ESPs and ISPs are better at detecting it.

[11] Utah Attorney General's Office, email message to author, July 8, 2024.

[12] Chance Carter, "An update on the Legal Landscape of Revenge Porn." *National Association of Attorney Generals*, November 16, 2021. An Update on the Legal Landscape of Revenge Porn (naag.org)

[13] Ruvalcaba, Yanet and Eaton, Asia A., "Nonconsensual Pornography Among U.S. Adults: A Sexual Scripts Framework on Victimization, Perpetration, and Health Correlates for Women and Men.", *Psychology of Violence*, February 2019. https://www.researchgate.net/publication/330858398_Nonconsensual_Pornography_Among_US_Adults_A_Sexual_Scripts_Framework_on_Victimization_Perpetration_and_Health_Correlates_for_Women_and_Men

[14] Connor Walsh, "Revenge Porn: The Latest Research and Law Enforcement Efforts". *Training Institute on Strangulation Prevention*, May 30, 2023. Revenge Porn: The Latest Research and Law Enforcement Efforts (strangulationtraininginstitute.com)

[15] Daniela Malta, "Cybercrimes include sextortion, revenge porn". U.S. Army, April 25, 2019. https://www.army.mil/article/220872/cybercrimes_include_sextortion_revenge_porn

[16] DHS, ODNI, "Increasing Threat of DeepFake Identities." Increasing Threat of DeepFake Identities (dhs.gov)

[17] It should be noted that while this brief focused on CSAM and revenge porn, these areas are not the only criminality concerns with GenAI. In 2024, Utah passed the law "Commission of Offense with Aid of Generative Artificial Intelligence". This criminalizes the use of GenAI to help commit any type of crime.

[18] States with laws on explicit deepfakes include Wisconsin, Washington, California, Tennessee, South Dakota, Idaho, Utah, Oklahoma, Texas, Louisiana, Minnesota, Iowa, Florida, Alabama, Indiana, New York, Georgia, and Virginia.

[19] NCSL Staff, "Deceptive Audio or Visual ('Deepfakes') 2024 Legislation." *National Conference of State Legislatures*, May 07, 2024. Deceptive Audio or Visual ("Deepfakes") 2024 Legislation (ncsl.org)

[20] Bill Kramer, "More and More States Are Enacting Laws Addressing AI Deepfakes." *MultiState*, April 5, 2024. More and More States Are Enacting Laws Addressing AI Deepfakes | MultiState

[21] Philip Lukens, "An introduction to how AI is transforming real time crime centers." *Police1*, March 11, 2024. An introduction to how AI is transforming real time crime centers (police1.com)

[22] Samie Solina, "Bloomington police Chief is excited to use AI to his advantage." *Kare 11*, July 5, 2024. https://www.kare11.com/article/news/local/bloomington-police-chief-excited-use-ai-advantage/89-66d916b8-42a5-49ab-8f67-3fc6aa12940b