She was accused of faking an incriminating video of teenage cheerleaders. She was arrested, outcast and condemned. The problem? Nothing was fake after all

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Madi Hime is taking a deep drag on a blue vape in the video, her eyes shut, her face flushed with pleasure. The 16-year-old exhales with her head thrown back, collapsing into laughter that causes smoke to billow out of her mouth. The clip is grainy and shaky – as if shot in low light by someone who had zoomed in on Madi's face – but it was damning. Madi was a cheerleader with the Victory Vipers, a highly competitive "all-star" squad based in Doylestown, Pennsylvania. The Vipers had a strict code of conduct; being caught partying and vaping could have got her thrown out of the team. And in July 2020, an anonymous person sent the incriminating video directly to Madi's coaches. Eight months later, that footage was the subject of a police news conference. "The police reviewed the video and other photographic images and found them to be what we now know to be called deepfakes," district attorney Matt Weintraub told the assembled journalists at the Bucks County courthouse on 15 March 2021. Someone was deploying cutting-edge technology to tarnish a teenage cheerleader's reputation. The vaping video was just one of many disturbing communications brought to the attention of Hilltown Township police department, Weintraub said. Madi had been receiving messages telling her she should kill herself. Her mother, Jennifer Hime, had told officers someone had been taking images from Madi's social media and manipulating them "to make her appear to be drinking". A photograph of Madi in swimwear had been altered: "Her bathing suit was edited out." Madi wasn't the only member of the Victory Vipers cheer team to have been victimised. In August 2020, Sherri Ratel had been sent anonymous texts accusing her 18-year-old daughter, Kayla, of drinking and smoking pot. Noelle Nero had been sent images of her 17-year-old daughter in a bikini with captions about "toxic traits, revenge, dating boys and smoking". These, too, were "all altered and shown as deepfakes", Weintraub added. The anonymous sender had used "spoofing" software to disguise their identity behind an unknown number. The police had managed to trace it to the IP address of Raffaella Spone, a 50-year-old woman with no previous criminal record. In her mugshot, she wears a lime green turtleneck with her hair scraped back in a tight ponytail. Her eyes, thickly lined in black, look up at the camera in a cold stare; her brightly painted lips are pursed with anger. She looks terrifying. "It appears that her daughter cheers – or did cheer – with the victims at the Victory Vipers gym," Weintraub told the assembled journalists. Spone had taken it upon herself to smear her 16-year-old's rivals in an attempt to get them thrown off the team. As microphone after microphone was placed before him on the podium, Weintraub didn't mince his words. "This tech is now available to anyone with a smartphone – your neighbour, somebody who holds a grudge," he said, waving

his own phone in the air. “Here in Bucks County, we have an adult with specific intent, preying on juveniles through the use of deepfake technology.” This went further than cheerleader rivalry in suburban Pennsylvania. Anyone could be a victim of this new kind of crime, and anyone a perpetrator. “All one needs to do is download an app and you’re off to the races,” Weintraub continued. “Sometimes these deepfakes are so good, we can’t even discern them with the naked eye.” The authorities would always be on the back foot, he added: “It takes minutes to make a deepfake video, but it takes us months to investigate.” The woman in the mugshot was the canary in the coalmine: the era of believing your own eyes was officially over. In 2021, a fresh wave of panic about deepfakes was crashing on a world that had spent far too much time locked down at home in front of screens. Deepfaked pornography – with the faces of non-consenting people crudely superimposed on to others’ bodies – had been a concern for years, but now digitally manipulated videos were beginning to be eerily convincing. The press conference came only a few weeks after a deepfaked video of Tom Cruise doing a magic trick went viral on TikTok. It was three months after Queen Elizabeth appeared deepfaked and twerking in Channel 4’s alternative Christmas message, sparking outrage. But the cheerleader deepfake story was something else: an irresistible combination of wholesome all-American girls, nudity, teenage rivalry, underage partying and dystopian technology. As soon as Weintraub stepped down from the podium, the story exploded. It made international headlines, from the BBC News to the Hindustan Times to the Sydney Morning Herald (and, yes, the Guardian). Trevor Noah mocked Spone on the Daily Show. Madi Hime appeared alongside her mother on ABC’s Good Morning America, the most watched morning show in the US. They shared the vaping footage – the only imagery from the case to be made public – and Madi described how she felt when one of her cheerleading coaches took them aside to tell them what they’d been sent. “I went in the car and started crying, and was like, ‘That’s not me on video,’” Madi said. “I thought if I said it, nobody would believe me, because there’s proof – there’s a video. But it was obviously manipulated.” Towards the end of the police press conference, a reporter had raised his hand. Given our first instinct is to believe our eyes, how did the police conclude the videos were deepfakes, he asked, “versus saying: maybe this is teenagers lying, and the videos are real”? “There’s what’s called metadata,” Weintraub replied. “We can look behind the curtain, as we were able to do in this case. We can’t do it in every case because some providers are halfway across the world. Some don’t cooperate. Others are just inundated with requests.” He threw his hands up, as if overwhelmed by the scale of it all, adding, “We take it as gospel that a picture is a picture, a video is a video, that they’re unaltered, untainted. This is a setback.” But a little over a year later, when Spone finally appeared in court to face the charges against her, she was told the cyberharassment element of the case had been dropped. The police were no longer alleging that she had digitally manipulated anything. Someone had been crying deepfake. A story that generated thousands of headlines around the world was based on teenage lies, after all. When the truth finally came out, it was barely reported – but the videos and images were real. * * * If the word “cheerleader” makes you think of girls with pompoms on the sidelines of high school American football games, think again. Competitive, “all-star” cheerleading is a sport in its own right. It demands jaw-dropping nerve and athleticism, a combination of gymnastic, circus and dance skills, as well as – for female cheerleaders – heavy makeup, backcombed hair and rhinestone-encrusted costumes. It’s an overwhelmingly female sport, but it’s not just for girls. Every year, four million Americans take part. Each team is a delicate ecosystem. “Tumblers” perform stunning acrobatic feats on the mat. “Stunters” throw “flyers” vertiginously into the air to perform flips and somersaults. The pyramid is the centrepiece of any routine, where the entire squad comes together, with “bases” supporting tiers of teammates and a single flyer at the summit. Flyers need to be light, agile and athletically gifted; they are the focal point of any routine. Cheerleading accounts for 65% of spinal or cerebral injuries across all female athletes in America. But, for some, the high stakes are worth it: all-star cheerleaders can win college scholarships, become social media influencers and gain lucrative branding deals. Simply making the team can be enough to bring young people status in their community: they become a symbol of local patriotism and clean-cut success. Doylestown, an hour’s drive north of Philadelphia, is a pretty American town within an excellent local school district; this is where parents with sharp elbows come to raise their families. The Victory Vipers gym is on its outskirts, in a huge, nondescript hangar. On any given day, the parking lot will be full of parents in SUVs, either dropping children off or waiting for them to finish practice. You can hear coaches counting beats over high-octane music inside, but other than that, there is little to suggest this is the home of a highly competitive and successful cheer squad. From the outside, at least, it doesn’t look like a place that costs $4,950 (£4,000) a year to be part of (not including travel expenses for out-of-town competitions), if you’re in the top team. Neither of the Victory Vipers co-owners responded to requests to speak to me for this article. When Spone was charged, they issued a statement, saying the team “has always promoted a family environment” and that “this incident happened outside of our gym”. Matt Weintraub became a judge in January; his office said that, given his new position, “the ethical rules require him to decline” my interview offer – but he has been declining to comment on the case since May 2021. In an email, Hilltown Township’s chief of police, Chris Engelhart, said, “This matter may still be subject to civil litigation and as such, we cannot make any comments.” I have tried to contact Madi and Jennifer Hime for two years, over email and social media, and also Kayla Ratel and her parents, Sherri and George; none of them have responded. Of the three families, only the Neros have got back to me, to politely decline my request. Those who made the loudest noise when the cheerleader deepfake story broke have now gone quiet. But Raffaella Spone has agreed to speak, in-depth, for the first time. She barely leaves her house now, she says, but is willing to meet me 20 minutes from the Victory Vipers gym, in a diner near where her lawyer is based, so long as he can join us. In person, Spone is tiny; she has a soft, warm face that looks almost nothing like her mugshot. She greets me with a hug. We spend four hours

with bottomless sodas in a booth in a corner of the diner. “Allie was my no-fear athletic child,” she tells me of her youngest daughter (she has another, whose name she has managed to keep out of the press). “I would catch her climbing the streetlamp in our neighbourhood. She was practising gymnastic flips in trees.” Allie made the local gymnastics team at five years old, Spone tells me. “She was talented and she loved what she did. And I loved watching her – that was my excitement, just watching her and her teammates.” In the summer of 2016, Allie decided she wanted to do competitive cheer and tried out for the Victory Vipers, their local all-star team. Allie was always a flyer, Spone says: “She’s five one, 100lb – just tiny – and naturally super-flexible.” After we meet, she sends me videos of her daughter tumbling and cartwheeling before being caught in the splits and thrown high into the air. Allie was prepared to work hard, begging her mother to take her to practice even when she was injured. “She felt her teammates were depending on her,” Spone says. Cheerleading became Allie’s world – and hers. “When your kids are in sports, you don’t have a life sometimes because you’re always driving somebody somewhere, dropping off, picking up. It becomes your life.” Cheerleading depends on perfect synchronicity and complete trust: any mistake or misunderstanding could lead to a broken neck. Allie formed strong bonds with her teammates. Spone says, “They were inseparable. If they weren’t over at my house, she was over at theirs. Whether it was in the pool, at the beach, all they did was practise. They lived and breathed it.” And Spone made friends with their parents. “While we were waiting for our kids to practise, we would go to a local Mexican place and have dinners.” They took each other’s kids on their family holidays. The way Spone describes it, there was no rivalry between the Vipers. But it’s clear that in 2020 she had been checking the social media feeds of her daughter’s cheerleading friends and had become concerned by what she saw. What happened next caused things in that cheerleading family unit to break down, irretrievably. “They were my friends. They were people I cared about,” Spone says, quietly. “It broke every part of me.” * * * On the evening of 18 December 2020, five male police officers banged on Spone’s door with a search warrant. “They took our phones. They took my daughter’s Xbox, her school computer, my husband’s work computer – I don’t own a computer, I never have,” she tells me, pointedly. “They took my husband’s phone charger and my daughter’s disposable camera. They took TVs out of every single room.” She had no idea why the police were there, but she knew they were there for her, because they were asking for her by name. A male officer patted her down in a way that made her feel violated, she says. She was hysterical, hyperventilating. The police had been in her home for several hours before officer Matthew Reiss told her what she was being charged with. “He said, ‘You know what you did. You created deepfakes.’ I had never heard that term in my life,” Spone tells me. She faced several counts of harassment, including three counts of cyberharassment of a child, but she wasn’t charged until March 2021, when she came into the police station, had the mugshot taken, and became the face of a moral panic. In the affidavit of probable cause – the sworn police report outlining the basis for the charges against her – Reiss writes that he and his colleagues had spent months speaking to the families of the three teenagers who said they had been receiving anonymous messages. The “behind the curtain” work he describes relates to how police determined that the spoofed texts had been sent from Spone’s IP address. But when it comes to evidence that she was deepfaking images of minors, things get very vague. Reiss takes Jennifer Hime’s word that “an altered” video of Madi vaping had been sent to the Vipers’ coaches. He says he had “reviewed the video and found it to be the work of a program that is or is similar to ‘Deep Fakes’”. There is no detail on what this reviewing entailed, and how he could be certain it had been altered. Weintraub began the March 2021 press conference by thanking Reiss: “He certainly deserves credit for a very thorough and lengthy investigation.” Unlike his client, Spone’s lawyer, Robert Birch, knew what a deepfake was. “My first reaction was, how does a 50-year-old woman deepfake something on a phone? You need pretty sophisticated editing capabilities.” Birch argues that the press conference was a ploy by the district attorney to get some attention. “He was running for re-election that year. He took a look at the criminal complaint and saw an opportunity.” It is certainly true that Weintraub didn’t shy away from the publicity it generated. He appeared on Good Morning America and The Today Show, and gave interviews to the Washington Post and the New York Times, warning that, “This is something your neighbour down the street can use, and that’s very scary.” But anyone familiar with the technology at the time knew it would be virtually impossible for an amateur to make a convincing deepfake like the vaping video. Four days after Weintraub’s press conference, generative AI and deepfake expert Henry Ajder expressed concerns that ABC was still running the footage under the caption “DEEP FAKE VIDEO” when it clearly was not. He tweeted that “the vape pen/cloud/hand moving over the girl’s face”, “the awkward facial angles” and other aspects of the video “would likely require a huge amount of work by a deepfake expert, with editing in post”. One of the most widely reported claims from the press conference was that Spone had taken a photo from Madi’s social media and altered it to make her appear naked. “From day one after that press conference, I demanded that the district attorney’s office send me the death threats and the nudes, and I never got them,” Birch says, drumming his finger on the table. When he was finally allowed to see the evidence against his client, in November 2021 – almost a year after she was charged – he found the image that was the basis for the “nude” claim: a screen-grabbed snap from Snapchat sent by someone called Skylar, featuring Madi in a pink bikini that had been blurred so it blended in with her flesh tone, the sort of thing someone could do using basic photo editing software on their phone with a swipe of a finger, rather than any kind of sophisticated AI digital editing. It looked like a silly joke, rather than a serious attempt to make a nude out of an image of a child. Skylar is a real person – a teenage girl in Madi’s circle of friends, Spone and Birch tell me – but the police had never contacted her to ask about the image. Birch criticises what he calls “a complete lack of investigation” on the part of the Hilltown Township police. They didn’t ask to see Madi’s phone until a year after her mother told them she had been receiving disturbing

messages, by which time Madi had got a new one and disposed of her old one. No death threats against Madi were ever recovered. Madi had also deleted several of her social media accounts, which her mother had claimed provided the source material for the manipulated images and video. The police had taken Madi at her word that images had been taken and altered to make her look as if she was drinking and vaping, but there was no way of finding the source videos and images, or seeing the supposed deepfakes that had been created out of them, apart from the video she had shared with Good Morning America. Either a woman with no background in digital technology had made a sophisticated deepfake on her iPhone 8, or a 16-year-old had panicked and lied to her mother about vaping, or mother and daughter had decided together to explain away behaviour they knew would get Madi in trouble, with an elaborate story about digital manipulation. The police chose to believe the first explanation. “They never understood deepfakes, and the implications of giving a press conference scaring people into thinking someone could take an image and turn it into something else so easily,” Birch says. “I don’t think they ever thought this thing would spread like wildfire and become a worldwide phenomenon.” A small police force made a mistake that became too big to fix. “Once it blew up, the police couldn’t extricate themselves without losing face.” When The Daily Dot, a tech news website, looked into the deepfake claims in May 2021, and asked Reiss about the methods he had used to establish that the videos had been digitally altered, he admitted he had relied on his “naked eye”, adding, “We hope Mrs Spone during the course of the preliminary hearing or trial will enlighten us as far as what her source and intent was.” These would be the last public comments Reiss made about the case. On 26 May 2021 he was arrested on suspicion of possessing images of child sexual abuse. Two images had been uploaded to his Gmail account, and detectives had traced them to his IP address. When they raided his home and seized his electronic devices, they found more than 1,700 images and videos depicting children, including 84 of toddlers and infants. Reiss pleaded guilty in March 2022, and was later sentenced to 11 and a half to 23 months in jail. To use Weintraub’s language, if anyone was “preying on juveniles”, it was the police officer who led the investigation. * * * “I had death threats over every social media platform,” Spone says. “Thousands. You can’t even put a number on it.” She had some fanmail, too: from a convicted murderer in a Wisconsin prison. “A three-page letter, back and front, with a picture of himself,” she adds. “He wanted to get to know me better. That scared me – this person has my address.” Someone maliciously reported her to child protection officers who turned up at her home to interview her daughters. “My kids had to go through this,” she says. The man who was renting the house next to hers approached her once, after she had just parked her car. “He looked me dead in the eyes and said, ‘I’m going to kill you. You’re a disgusting paedophile.’ I didn’t know if he had a weapon on him. I thought, this is it, this is the way I’m going out.” Her husband intervened and she called the police, who she says took no further action. “I have to be aware of my surroundings 24/7. It’s taken over my life.” Spone used to be a crisis worker in a psychiatric unit, but says she has felt unable to return to work after the story broke. Her savings have all been spent on legal fees. “I lost everything. Family, friends, people I’ve known my whole life. Nobody wanted to associate with me.” Her eyes fill with tears. “I did contemplate taking my life. It was too much, between the constant threats and knowing that’s the legacy that I leave behind.” “You can never scrub off the internet what’s on the internet – that’s the thing,” Birch says. In March 2022, Spone was found guilty of three counts of misdemeanour harassment for repeatedly sending anonymous messages about the three teenagers. A jury found that she had used secret phone numbers to send incriminating photos and videos. The messages – sent to the Victory Vipers and to the teenagers’ families – accused the cheerleaders of drinking, smoking and posting revealing photos on social media. The anonymous numbers used to send the messages had been sent from an IP address belonging to Spone. She appealed against her conviction, but the superior court of Pennsylvania upheld it on 14 November 2023. “She was convicted of sending five text messages,” Birch sighs. “There wasn’t one threat in any of them. All the messages said was, ‘You should be aware of what your daughters are posting.’” He claims that a fair trial was impossible, after all the publicity his client had received: “Any jury would be poisoned.” With unfortunate timing, the trailer for a schlocky TV movie “inspired by” the story, Deadly Cheer Mom, starring Mena Suvari, was released at the same time as the trial. But neither Birch nor Spone has made any official complaint about the jury. I ask Spone if she sent the messages she has been found guilty over. She denies it, without looking up from her phone. Her phone has been a constant presence since we sat down; she illustrates everything she tells me with evidence stored on it. She has photos of Madi she says were taken the same night as the notorious vaping video: she’s wearing the same clothes, sitting in the same spot. “There are loads of videos. When anybody says, ‘I don’t do that’ – I’ve got proof. Yes, you do! Posted on public accounts, for everyone to see.” Spone may not manipulate videos and images, but she definitely collects them. Still, she says she never sent them. “The charges were that she directly sent messages to the minors,” Birch adds. “That never happened. That’s the point.” But did she send messages to the gym and the parents? There is a long pause. “No,” Spone eventually says. I’m surprised to hear her say this, given Birch told the Washington Post Spone messaged the parents out of concern for what their daughters had put online. When I point this out, there’s another long pause. “If I said that, I said it,” Birch says, with a shrug. “It is what it is.” Even if Spone is guilty of sending the five messages, she is innocent of the claims that made her notorious. Sending anonymous and unwelcome text messages is not the same as digitally manipulating images of minors. She was sentenced to three years’ probation and 70 hours of community service; she had to undergo a mental heath assessment and wear an ankle monitor for three months. The conditions of her probation bar her from making public statements about the three young women, so she can’t give me an account of how they all came to fall out so badly. When the news first broke, Kayla’s father, George Ratel, told the Philadelphia Inquirer he thought the problems started when he and his wife told Kayla to stop socialising

with Allie “due to concerns over [Allie’s] behaviour”. Spone says she has no knowledge of Kayla, who was two years Allie’s senior, ever being told to stop hanging out with her daughter. And she maintains she was never trying to get anyone kicked off the team – her daughter was the flyer, she says, and already had the most eye-catching position – but this doesn’t explain why Victory Vipers coaches were among those who received anonymised messages sent from her IP address. Spone is now suing Weintraub, Reiss, Hilltown County police and the Himes for defamation and violating her civil rights. The lawsuit claims that, in “a continuing pattern of intentional defamation to continue to falsely paint [Spone] as a child predator”, the then district attorney’s office and the police “allowed the false accusations” of deepfakes “to continue until the day of the plaintiff’s trial in 2022, knowing that it had no evidence”. The legal action originally included the Ratels, but the claim against them was withdrawn after Sherri and her daughter, Kayla, came forward in March 2023 with a sworn affidavit, in which they say that they made clear to authorities from the outset that no images of Kayla had been manipulated, that only one was received (by Sherri) and that it was not threatening. Of the lawsuit, Spone tells me, “No amount of money can rectify what was wrong,” and I believe her: she seems consumed with the details of the case, nearly four years after the events. But Birch says she could receive substantial damages: “The jury could award anything from nothing to $20m if they wanted to.” It’s a tough case, he concedes, a David and Goliath battle. “We’re suing the district attorney, who’s now a judge.” * * * All four girls had left Victory Vipers by the time the story became public. Madi moved to another cheer squad. Since the story broke, she has achieved the kind of fame competitive cheerleaders dream of. There have been rumours about true crime documentaries and film deals; in February 2022, Madi posted on TikTok about “when [cable channel] Lifetime sent me and my mom a script of their new movie”. She now has almost 100,000 followers and close to a billion views on her main TikTok account alone. Allie stopped doing cheer altogether in 2020. Spone claims she had wanted her daughter to leave the Victory Vipers long before she did because she felt unhappy about the way it was run, but Allie had begged her to stay because of a tradition where seniors get to press their hands into cement on a wall in the back of the gym, leaving a permanent record. “It was monumental to her. So I went against my intuition and let her stay.” In the end, Allie never got to make her mark. When I ask Spone how her relationship with Allie is now, there is another long pause. “She knows about this interview. She is not happy. She’s like, ‘Mom, when will this ever be over?’ She just wants to live her life – I can’t blame her, at 19. But I want the truth to be told. I will not rest until the truth is out.” “Truth?” Birch interjects. “What is truth?” He is half joking – but only half. It’s the day the US supreme court rules Trump was wrongly removed from the Colorado ballot, and the television set on the wall above where we’ve been sitting for hours has been tuned to CNN. Every so often, Birch has pointed a finger at the screen and said, “Fake news.” The cheerleader deepfake mom story is the ultimate fake news story. Lies can travel around the world for any number of reasons: crying deepfake is just the newest one. Both Spone and Birch tell me they never believe anything they see and hear any more. “My whole world got turned upside down,” Spone says, “so it makes me question whether anything I’m seeing is true.” In an age of conspiracy, to assume that anything truly is as it initially appears is perhaps a little quaint or naive. The existence of deepfake technology is useful for people who want to sow doubt and have something to gain by distancing themselves from their true words and actions. Lawyers for the first 6 January Capitol rioter to go on trial claimed in 2022 that video evidence against him had been deepfaked. Last year, Tesla’s defence lawyers tried to claim that statements made by Elon Musk about the safety of the Model S and the Model X in a filmed interview might have been deepfaked. As the technology improves and becomes more widely available, more people will be crying deepfake when they are caught on camera. The cheerleader deepfake mom was a canary in the coalmine, after all. The damage to Spone comes from going viral as the main character in a sensational but false story. “I want to correct those facts,” she repeats. “I don’t want anyone else to go through what I went through. If it can happen to me – and I’m a nobody – it can happen to you.” • This article was amended on 17 May 2024 to clarify that Kayla Ratel was 18 at the time of the events reported and to include reference to the affidavit from her and her mother; these details had been omitted during editing. A response from Raffaella Spone to the suggestion that Kayla had been told not to socialise with her daughter was also added.