Dared by the Algorithm: Dangerous challenges are just a click away

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Summary

This report looks at three popular platforms used by teenagers across America: TikTok, Instagram, and YouTube.

Each of these platforms has an explicit policy banning content that promotes or depicts dangerous challenges, however this short investigation documents how easily this content is found on each of these platforms.

We explored two dangerous trends, both well-known, but increasing in popularity:

- Car surfing, where people are filmed standing or riding on top of a moving car, as well as "ghost riding the whip," where people get out of their own car while it is moving in order to car surf and
- Trainsurfing, where people ride on the outside of trains. An old phenomenon, recent reports suggest it is a resurgent risk¹ associated with a growing social media popularity.

The research used a bot-account, registered as a 14-year-old boy in the US to demonstrate that content for both risks is easily found on all platforms by young people. Each platforms' search algorithms recommended a range of car and train surfing content to this teen's account, and no platform provided a warning.

The plethora of online content promoting risky behaviors is a widespread problem across social media that requires a regulatory response. The draft Kids Online Safety Act (KOSA) S3663 includes a number of provisions that would require platforms to:

- act in children's best interest, and mitigate against harms arising from the promotion of self harm and other matters that pose a physical threat to a minor (Sec 3(b)(1)) and
- make dangerous challenges easier to avoid by allowing minors to opt out of algorithms that recommend them (Sec 4(a)(1)(d)).

¹ Wilfred Chan 2022 'The lethal rise of subway surfing'

https://www.theguardian.com/us-news/2022/aug/31/subway-surfing-new-york-deaths-injuries

This legislation is urgently required to safeguard young people online.

Introduction

Online challenges generally involve people recording themselves doing an activity that is seen as hard or risky in order to post it online, often with encouragement for others to also try the challenge. While, at their best, these challenges can raise awareness for good causes or showcase skills and talent, such as the ALS "ice bucket challenge" or the fitness based "plank challenge," some of these viral activities are risky and dangerous. Some challenges involve explicitly calling out, naming, or tagging someone specific to do the challenge next, but most simply rely on virality to spread.

Risky challenges that have spread online include the Skullbreaker challenge, where two people kick the legs out from underneath an unsuspecting third person as they jump causing them to land traumatically; the Outlet Challenge, where someone places a penny in a live power socket to risk an electric shock; and the Blackout or Choking challenge, where people choke themselves until they pass out on camera.

While peer pressure to take risks is not anything new, online challenges represent a new tech-enabled peer pressure that dramatically amplifies both the scale of the risks people are encouraged to take *and* the scope of a risk's reach. This particularly affects young people. More young people are exposed to riskier challenges due to the way they spread on social media platforms, and due to young people's frequent use of social media platforms.

This research explores two specific challenges:

- Car surfing, where people are filmed standing or riding on top of a moving car. This sometimes includes getting out of their own car while driving, to ride on top of it. This variation, called "ghost riding the whip" has been documented from 2002 onwards in cyclical peaks and troughs of popularity, with its last resurgence in 2018 associated with a Drake song.²
- Trainsurfing, where people ride on the outside of trains. An old phenomenon, recent reports suggest it is a resurgent risk, with incidents tripling in the last year alone and social media associated with the rise in popularity.³ For instance, in the last few months, a 15-year-old suffered severe head trauma

² Ray Surette 2019 'A copycat crime meme: Ghost riding the whip' *Crime Media Culture: An International Journal* https://doi.org/10.1177/1741659019865305

³ CBS 2022 '15 year old boy arm severed'

https://www.cbsnews.com/newyork/news/15-year-old-boys-arm-severed-by-r-train-trying-to-subway-surf-queens/

while surfing on a train in June⁴, and in August another 15-year-old suffered life threatening injuries when he slipped while train surfing in August.⁵

These challenges were investigated firstly because they are not novel phenomena. Car surfing and trainsurfing are widespread and well known activities, present since before smartphones and social media. This means the activities could not be too new or too niche for platforms to have adequately addressed. Secondly, these challenges are still popular and prevalent, either as emerging new challenges on social media in September 2022 (such as trainsurfing) or as ongoing cycles of popularity (such as ghost riding the whip). They represent ongoing and current risks to young people.

Platforms and policies

This report looks at the three most popular platforms for American teenagers:

- YouTube, which has been used by 95% of teens
- TikTok, which has been used by 67% of teens and
- Instagram, which has been used by 62% of teens⁶

Each of these platforms has a policy of removing content depicting dangerous challenges from their platform.

Instagram's policy states that it removes content that encourages dangerous challenges and disable the responsible accounts, according to their community guidelines:

Maintain our supportive environment by not glorifying self-injury: Encouraging or urging people to embrace self-injury is counter to this environment of support, and we'll remove it or disable accounts if it's reported to us. We may also remove content identifying victims or survivors of self-injury if the content targets them for attack or humor.⁷

TikTok's policy state it removes dangerous challenges, according to their community

⁴ Tina Moore and Allie Griffin 2022 'Teen in Critical Condition After Striking Head While Subway Surfing' *New York Post*

https://nypost.com/2022/06/24/teen-in-critical-condition-after-striking-head-while-subway-su rfing-atop-nyc-7-train/

⁵ CBS 2022 '15 year old boy arm severed'

https://www.cbsnews.com/newyork/news/15-year-old-boys-arm-severed-by-r-train-trying-to-subway-surf-queens/

⁶ Pew Research Center 2022 'Teens, Social Media and Technology 2022'

https://www.pewresearch.org/internet/2022/08/10/teens-social-media-and-technology-2022/

⁷ Instagram 2022 'Community Guidelines' https://help.instagram.com/477434105621119

guidelines:

We do not permit users to share content depicting, promoting, normalizing or glorifying dangerous acts that may lead to serious injury or death. We also do not allow content which promotes or endorses collective participation in dangerous or harmful activities that violate any aspect of our Community Guidelines.⁸ We will remove any content – including video, audio, livestream, images, comments, links, or other text – that violates our Community Guidelines.

YouTube's policy states it removes dangerous content and cancels repeat offending accounts, according to its Harmful or Dangerous Challenges policy:

'YouTube doesn't allow content that encourages dangerous or illegal activities that risk serious physical harm or death' including 'extremely dangerous challenges' that 'pose an imminent risk of physical injury'. Content that violates this policy will be removed, and channels that consistently post policy violating content can be shut down.⁹

This research explored how well each platform complies with their own policies.

Despite their clear policies, a "young user" could easily find this policy-violating train and car surfing content on each of these platforms through the search algorithm and the recommended content.

Findings

This research established a child's account on each of these platforms' mobile apps, purporting to be a 14-year-old boy. We looked at what each platform promoted to this young user, when they searched for these challenges.

For ethical reasons:

- This bot account was established on a monitored device; clearly identified as a research account (it was named 'Fairplay Research'); no contact was made with others from this account;
- The account is deleted at the conclusion of the research;
- All videos/images uncovered are reported at the end of the research.

⁸ TikTok 2022 'Community Guidelines'

https://www.tiktok.com/community-guidelines?lang=en#34

⁹ YouTube 2022 'Harmful or dangerous content policy'

https://support.google.com/youtube/answer/2801964?hl=en-GB#zippy=%2Cextremely-danger ous-challenges

Despite the rise of these risky challenges among young people, none of the investigated platforms added a safety warning when our 14-year-old account searched these terms. Instead, all platforms suggested videos and content promoting these dangerous activities.

YouTube

When someone uses the search feature on YouTube's mobile app, the platform's search algorithm recommends 10 video results and a menu of visible "shorts" (short format videos that users scroll between). It also suggests some "channels new to you," followed by a selection of "videos people also watched," which are largely unrelated.

	First 10 recommended videos	First 50 recommended shorts (Watching the first recommended short in the search, and the following 49 that are automatically queued after this)
#car surfing	60% 6 of the 10 videos YouTube recommended our 14-year-old were videos of car surfing	20% The first short was car surfing, and in total 10 of the shorts contained car surfing. (An additional seven other shorts promoted other risks such as driving with no hands, the "cha cha slide" in a car, death diving, road racing and parkour jumping between multistory buildings.)
#train surfing	90% 9 of the videos YouTube recommended our 14-year-old were videos of train surfing	12% The first short was train surfing, and in total 6 of the shorts contain train surfing. (Three additional videos promoted risks including car surfing, high speed car chases and tokyo drifting.)

This analysis looks at the recommended videos and "short" videos.



Images from the YouTube search and shorts of car and train surfing

Instagram

When a teenager uses the search feature on Instagram's mobile app, the platform's search algorithm recommends a range of photos and a collection of "'reels" (short videos). This analysis looks at the contents of the first 50 videos and the first 50 reels.

	First 50 recommended images	First 50 recommended reels IWatching the first recommended reel in the search, and the following 49 that are automatically queued after this)
#car surfing	28% 14 of the first 50 images depicted car surfing	26% The first reel was of car surfing, and in total 13 of the first 50 reels were of car surfing or ghost riding the whip. One of these included a driver getting out of a moving vehicle on a 4-lane highway and leaving it to drift into the path of oncoming traffic. (Another video included train surfing, and one more a composite of risks including car and train surfing, and road racing.)
#train surfing	84% 42 of the first 50 images depicted some sort of train surfing	52% The first reel was of train surfing, and in total 26 of the first 50 reels were of train surfing. (Others included road racing in cars and mountain climbing without ropes.)



Images from Reels of car surfing

TikTok

When a teenager uses the search feature on TikTok's mobile app, the platform's search algorithm recommends a string of 10 videos, categorized by "Top" results, Users, Videos, Accounts/Sounds, LIVE or Places or other categorizations depending on the search. This analysis looks at the TOP 10 videos recommended, which is common to all TikTok searches.

	Search top 10	
#car surfing	80% 8 videos depicted people car surfing	
#train surfing	surfing 60% 6 videos depicted people train surfing	



Images from TikTok videos of car and train surfing

The harms challenges can cause

Mason's story, told by his mother Joann Bogard

Our youngest son, Mason, was beautiful, intelligent, selfless, and generous. Mason didn't spend much time on social media, but he did watch a lot of how-to videos on YouTube. In May of 2019, Mason died at the young age of 15. He was taking part in an online challenge called "the Choking Game."

Before this tragedy, things felt fine and everything was going well in our lives. Two weeks before the accident, Mason brought his phone to me and wanted me to watch a "funny challenge." He didn't search for it. It just "showed up" on his feed. It wasn't the choking challenge, but it was another one, I don't remember which one now. In that moment, I did what you're supposed to do. We had a conversation, parent to child, about how some of these challenges can be unsafe. He assured me that he would never do anything dangerous. He was a smart kid. And I believed him. I thought, "not my child."

May 1st started out fine for us, we were having a great day as a family. We noticed that Mason had been in the bathroom longer than was normal, and went to check on him. We found Mason unresponsive. His father, Steve, started CPR straight away and he was rushed to the hospital.

By the end of the day, what started as a "great" day, Mason had been pronounced brain-dead. He died in the hospital four days later, aged only 15. It was a very emotional, sad and scary time. We prayed a lot while he was in hospital. The doctors did everything they could, but it got to the point where we had to make some choices, and we decided on organ donation. No parents should ever have to make that choice.

We've been trying to understand how this happened, and turned over Mason's phone and computer to authorities and investigators. We've since found out that he had taken part in the choking challenge just two days before his death.

It's shocking to think that these sorts of challenges are both accessible and pushed to young viewers on social media still. No child should ever be hurt because an algorithm pushed them to dangerous and harmful videos. The pain they can cause and the losses they can lead to are tragic. But they are also avoidable. Dangerous challenges shouldn't be promoted to young viewers, and we need laws to prevent this.

Conclusions & recommendations

Risky challenges have existed on social media for decades, but industry response to moderation and curbing their spread have been inadequate. As this research demonstrated, well known and widespread challenges do not even trigger a flag when a young user searches for them.

This demonstrates the need for an urgent regulator response. The draft Kids Online Safety Act (KOSA) S3663 includes a number of provisions that would require platforms to:

- act in children's best interest, and mitigate against harms arising from the promotion of self harm and other matters that pose a physical threat to a minor (Sec 3(b)(1)) and
- make dangerous challenges easier to avoid by allowing minors to opt out of algorithms that recommend them (Sec 4(a)(1)(d)).

This legislation is urgently required to hold platforms accountable, and to ensure that they adequately safeguard young people who use their services.