From Bad to Worse: Algorithmic Amplification of Antisemitism and Extremism

Research Study One
Our Mission

To stop the defamation of the Jewish people and to secure justice and fair treatment to all.

ABOUT CENTER FOR TECHNOLOGY & SOCIETY

ADL Center for Technology & Society is a research-driven advocacy center that works to end the proliferation of online hate and harassment. Our team partners with industry, civil society, government, and targeted communities to expose these harms, hold tech companies accountable, and fight for just, equitable online spaces.

CTS plays a unique role in civil society by recommending policy and product interventions to elected officials and technology companies to mitigate online hate and harassment; driving advocacy efforts to hold platforms accountable and to educate their staff on current threats and challenges; producing data-driven applied research by analysts and a network of fellows, shedding new light on the nature of antisemitism, as well as the impact of broader hate and harassment on vulnerable communities; and empowering targets of harassment by responding to online incidents. We work with platforms to create online spaces that are safe for all.

ADL

ADL is the leading anti-hate organization in the world. Founded in 1913, its timeless mission is "to stop the defamation of the Jewish people and to secure justice and fair treatment to all." Today, ADL continues to fight all forms of antisemitism and bias, using innovation and partnerships to drive impact. A global leader in combating antisemitism, countering extremism and battling bigotry wherever and whenever it happens, ADL works to protect democracy and ensure a just and inclusive society for all.

TECH TRANSPARENCY PROJECT

Tech Transparency Project (TTP) is an information and research hub for journalists, academics, policymakers and members of the public interested in exploring the influence of the major technology platforms on politics, policy, and our lives.

TTP provides the tools to understand the impact of technology platforms on our public policies and everyday lives. Using public records research, data analysis, open-records requests and more, our in-depth research empowers the public to demand that the technology platforms serve, instead of the other way around.

TTP is a research initiative of Campaign for Accountability (CFA), a 501(c)(3) nonpartisan, nonprofit watchdog organization that uses research, litigation, and aggressive communications to expose misconduct and malfeasance in public life.

Table of Contents

FOREWORD
EXECUTIVE SUMMARY
METHODOLOGY
INSTAGRAM
FACEBOOK
TWITTER’S HATE MACHINE
YOUTUBE AN OUTLIER
CONCLUSION
DETAILED METHODOLOGY
INTERVENTION: FACEBOOK, INSTAGRAM, AND TWITTER
INTERVENTION: YOUTUBE
LIMITATIONS
Foreword

The question of who is accountable for the proliferation of antisemitism, hate, and extremism online has been hotly debated for years. Are our digital feeds really a reflection of society, or do social media platforms and tech companies actually exacerbate virulent content themselves? The companies argue that users are primarily responsible for the corrosive content soaring to the top of news feeds and reverberating between platforms. This argument serves to absolve these multi-billion-dollar companies from responsibility for any role their own products play in exacerbating hate.

A new pair of studies from ADL (the Anti-Defamation League) and TTP (Tech Transparency Project) show how some of the biggest social media platforms and search engines at times directly contribute to the proliferation of online antisemitism, hate, and extremism through their own tools and, in some cases, by creating content themselves. While there are many variables contributing to online hate, including individual users’ own behavior, our research demonstrates how these companies are taking things from bad to worse.

For these studies, we created male, female, and teen personas (without a specified gender) who searched for a basket of terms related to conspiracy theories as well as popular internet personalities, commentators, and video games across four of the biggest social media platforms, to test how these companies’ algorithms would work. In the first study, three of four platforms recommended even more extreme, contemptuously antisemitic, and hateful content. One platform, YouTube, did not take the bait. It was responsive to the persona but resisted recommending antisemitic and extremist content, proving that it is not just a problem of scale or capability.

In our second study, we tested search functions at three companies, all of which made finding hateful content and groups a frictionless experience, by autocompleting terms and, in some cases, even auto-generating content to fill in hate data voids. Notably, the companies didn’t autocomplete terms or auto-generate content for other forms of offensive content, such as pornography, proving, again, that this is not just a problem of scale or capability.

What these investigations ultimately revealed is that tech companies’ hands aren’t tied. Companies have a choice in what to prioritize, including when it comes to tuning algorithms and refining design features to either exacerbate or help curb antisemitism and extremism.

As debates rage between legislators, regulators, and judges on AI, platform transparency, and intermediary liability, these investigations underscore the urgency for both platforms and governments to do more. Based on our findings, here are three recommendations for industry and government.

**01**
Tech companies need to fix the product features that currently escalate antisemitism and auto-generate hate and extremism. Tech companies should tune their algorithms and recommendation engines to ensure they are not leading users down paths riddled with hate and antisemitism. They should also improve predictive autocomplete features and stop auto-generation of hate and antisemitism altogether.

**02**
Congress must update Section 230 of the Communications Decency Act to fit the reality of today’s internet. Section 230 was enacted before social media and search platforms as we know them existed, yet it continues to be interpreted to provide those platforms with near-blanket legal immunity for online content, even when their own tools are exacerbating hate, harassment and extremism. We believe that by updating Section 230 to better define what type of online activity should remain covered and what type of platform behavior should not, we can help ensure that social media platforms more proactively address how recommendation engines and surveillance advertising practices are exacerbating hate and extremism, which leads to online harms and potential offline violence. With the advent of social media, the use of algorithms, and the surge of artificial intelligence, tech companies are more than merely static hosting services. When there is a legitimate claim that a tech company played a role in enabling hate crimes, civil rights violations, or acts of terror, victims deserve their day in court.

**03**
We need more transparency. Users deserve to know how platform recommendation engines work. This does not need to be a trade secret-revealing exercise, but tech companies should be transparent with users about what they are seeing and why. The government also has a role to play. We’ve seen some success on this front in California, where transparency legislation was passed in 2022. Still, there’s more to do. Congress must pass federal transparency legislation so that stakeholders (the public, researchers, and civil society) have access to the information necessary to truly evaluate how tech companies’ own tools, design practices, and business decisions impact society.

Hate is on the rise. Antisemitism, both online and offline is becoming normalized. A politically charged U.S. presidential election is already under way. This is a pressure cooker we cannot afford to ignore, and tech companies need to take accountability for their role in the ecosystem.

Whether you work in government or industry, are a concerned digital citizen, or a tech advocate, we hope you find this pair of reports to be informative. There is no single fix to the scourge of online hate and antisemitism, but we can and must do more to create a safer and less hate-filled internet.

Yaël Eisenstat, Vice President, ADL Center for Technology and Society

Katie Paul, Director, Tech Transparency Project
Executive Summary

Do social media companies exacerbate antisemitism and hate through their own recommendation and amplification tools? We investigated how four of the biggest social media platforms treated users who searched for or engaged with content related to anti-Jewish tropes, conspiracy theories, and other topics. Three of them—Facebook, Instagram, and Twitter1 (now known as X after a rebranding by owner Elon Musk)—filled their feeds with far more antisemitic content and conspiratorial accounts and recommended the most hateful influencers and pages to follow. One platform, YouTube, did not.

In this joint study by the ADL Center for Technology and Society (CTS) and Tech Transparency Project (TTP), researchers created six test personas of different ages and genders and set up accounts for them on Facebook, Instagram, Twitter, and YouTube. Researchers had them search each platform for a basket of terms related to conspiracy theories as well as popular internet personalities, commentators, and video games. The study then examined the content that the platforms' algorithms recommended to these hypothetical users.

The findings were troubling: Facebook, Instagram, and Twitter all suggested explicitly antisemitic and extremist content to the personas, directing them toward hateful myths and disinformation about Jews. The content often violated the platforms' own hate speech policies. The more the personas engaged with platform recommendations—by liking suggested pages or following suggested accounts—the more antisemitic and extremist content they were fed.

The results show that Facebook, Instagram, and Twitter are not only hosting antisemitic and extremist content, but are actually suggesting it to users who have looked at or searched for conspiracy-related content—helping hateful ideas find a potentially receptive audience. That's a disturbing dynamic, given that antisemitic incidents in the U.S., including harassment, vandalism, and physical assaults, recently surged to historic levels.2

The findings on Instagram were particularly noteworthy. Instagram recommended accounts spreading the most virulent and graphic antisemitism identified in the study to a 14-year-old persona. The accounts promoted, among other things, Nazi propaganda, Holocaust denial, and white supremacist symbols.

With extremist mass shooters tending to be younger individuals who frequently embrace white supremacist ideologies, Instagram's results raise new questions about the content it serves to teenagers.3

YouTube, however, provided a counterpoint in the study: It was the only platform that did not push antisemitic content to the test personas. YouTube's example shows that it is possible for a platform to recommend content to users while not propagating hate speech. It's not clear why Instagram, Facebook, and Twitter failed to follow suit.

Key Findings:

- Instagram, Facebook, and Twitter recommended explicitly antisemitic content to test personas of different ages and genders who searched for or looked at conspiracy theories and other topics. Much of the content violated the platforms' own hate speech policies.
- The test personas who engaged with the platforms' recommendations by liking or following suggested accounts were fed more antisemitic and extremist content.
- The findings show how these social media platforms can direct people who look at conspiratorial and other content to an even larger world of anti-Jewish myths and disinformation.
- Meta-owned Instagram recommended accounts spreading the most virulent and graphic antisemitic content identified in the study to a 14-year-old test persona who engaged with the platform's recommendations. The content included Nazi propaganda and white supremacist symbols.
- Instagram's AI-powered search prediction feature, which predicts "relevant and valuable" search results as users type in the search bar, also produced antisemitic content in this study.
- YouTube was the only platform examined in this study that did not recommend antisemitic content to the test personas. This shows it is possible for platforms to tune algorithms to avoid exacerbating antisemitism and hate.

1 For the purposes of this report, we will continue referring to the company as Twitter, as that was the name when we conducted the investigations.
Methodology

This study examined algorithmic recommendations by the platforms to determine if and how they push antisemitic content to users. Researchers created six personas, each with accounts on Instagram, Facebook, Twitter, and YouTube. Two of the personas identified as 32-year-old men, two identified as 32-year-old women, and two identified as 14-year-olds who did not specify a gender. The researchers set up each persona on a virtual machine (a digital version of a physical computer) with its own IP address and associated each persona with a unique SIM card and mobile phone number.

Researchers had each of the six personas search Facebook, Instagram, Twitter, and YouTube for a set of 50 terms to establish their interests (referred to in this study as the “seeding terms”). The terms included common conspiracy theory phrases like “Flat Earth” and “The Deep State”; public figures who have posted antisemitic content such as rapper Kanye West and YouTube star PewDiePie; and words like “Elites” and “The Media,” which are associated with anti-Jewish stereotypes, and “statements of inferiority,” as well as Holocaust denial and “claims that Jewish people control financial, political, or media institutions.” The terms included common conspiracy theory phrases like “Flat Earth” and “The Deep State”; public figures who have posted antisemitic content such as rapper Kanye West and YouTube star PewDiePie; and words like “Elites” and “The Media,” which are associated with anti-Jewish stereotypes, and “statements of inferiority,” as well as Holocaust denial and “claims that Jewish people control financial, political, or media institutions.”

Researchers had each of the six personas search Facebook, Instagram, Twitter, and YouTube for a set of 50 terms to establish their interests (referred to in this study as the “seeding terms”). The terms included common conspiracy theory phrases like “Flat Earth” and “The Deep State”; public figures who have posted antisemitic content such as rapper Kanye West and YouTube star PewDiePie; and words like “Elites” and “The Media,” which are associated with anti-Jewish stereotypes, and “statements of inferiority,” as well as Holocaust denial and “claims that Jewish people control financial, political, or media institutions.”

Researchers had each of the six personas search Facebook, Instagram, Twitter, and YouTube for a set of 50 terms to establish their interests (referred to in this study as the “seeding terms”). The terms included common conspiracy theory phrases like “Flat Earth” and “The Deep State”; public figures who have posted antisemitic content such as rapper Kanye West and YouTube star PewDiePie; and words like “Elites” and “The Media,” which are associated with anti-Jewish stereotypes, and “statements of inferiority,” as well as Holocaust denial and “claims that Jewish people control financial, political, or media institutions.”

After completing the set-up process, researchers documented and analyzed the content recommendations that Facebook, Instagram, Twitter, and YouTube algorithms pushed to these personas over a 30-day period. Over that 30-day period, researchers collected data every ten days on Facebook, Instagram, and Twitter, and daily on YouTube. To test the impact of engaging with the recommendations, one persona in each pair (known as the “engagement personas”) clicked on the suggested content and followed suggested accounts, and the other persona in each pair (the “control personas”) did not engage with the suggested content.

The researchers found that Facebook, Instagram, and Twitter served antisemitic content to all the personas, but at a much higher volume to the engagement personas who clicked on the recommendations. YouTube was the only platform that they “avoid making recommendations that could be low-quality, objectionable, or particularly sensitive” or that “may be inappropriate for younger viewers.”

Twitter, meanwhile, says it prohibits hateful references, including to the Holocaust; hateful images, slurs and tropes; and dehumanization of people based on ethnicity, national origin, and other characteristics. The company also says that recommendations should be “surfaced responsibly” and that one of its core principles is “promoting healthy conversations.” However, numerous reports have documented how the platform under owner Elon Musk does not effectively enforce its policies on hate speech, frequently changes its policies, and has gutted teams dedicated to content moderation.

The six test personas, who only searched for a select set of terms and have no other online history that could signal their habits and interests, may not reflect a real person’s activity on the platforms. They do, however, provide insight into where social media algorithms drive users when they engage with recommended content.

The study’s findings undermine assurances from institutions like Facebook and Instagram, saying it doesn’t allow “dehumanizing speech or imagery,” “harmful stereotypes,” and “statements of inferiority,” as well as Holocaust denial and “claims that Jewish people control financial, political, or media institutions.” Facebook and Instagram both state that they “avoid making recommendations that could be low-quality, objectionable, or particularly sensitive” or that “may be inappropriate for younger viewers.”

Twitter, meanwhile, says it prohibits hateful references, including to the Holocaust; hateful images, slurs and tropes; and dehumanization of people based on ethnicity, national origin, and other characteristics. The company also says that recommendations should be “surfaced responsibly” and that one of its core principles is “promoting healthy conversations.” However, numerous reports have documented how the platform under owner Elon Musk does not effectively enforce its policies on hate speech, frequently changes its policies, and has gutted teams dedicated to content moderation.
The study tracked and analyzed Instagram’s “Suggested for You” recommendations to the six test personas on the desktop version of the app. On desktop, the recommendations appear on the right side of the user’s screen as well as in pop-up messages when a user follows a profile.

Researchers determined that Instagram recommended antisemitic content to all six test personas. But it quickly became clear that Instagram was pushing the most graphic and virulent examples of antisemitic content to the 14-year-old engagement persona.

For example, Instagram suggested an account with the handle @rabbi_foreskin_smuggler a dozen times to the teenage engagement persona. The account’s profile photo depicts Meta CEO Mark Zuckerberg with a long beard and the words “NICE JEWISH QUEER” in the background. The profile is full of anti-Jewish messages, including the phrase “We Own It All,” a likely reference to the antisemitic trope of Jewish power and control.12 On the @rabbi_foreskin_smuggler account page, Instagram recommended another account called @just_use_zyklon, a reference to Zyklon B, the poisonous gas used by Nazis for mass murder in concentration camps.13 Instagram recommended another account called @punished.crusader 15 times to the same teenage persona. The account describes itself as “NatSoc,” short for National Socialism, and its pinned Instagram Stories include an image of Jesus with a sonnenrad, a sunwheel symbol that is associated with the Nazi Party.14 The account posted a video interview with American Nazi Party founder George Lincoln Rockwell, who talked about his party’s ideology: “The main thing we are fighting for is the preservation of the white race.” One comment on the post called Rockwell an “eloquent pro-white voice.”

One account recommended twice to the 14-year-old engagement persona had posts that featured antisemitic language in the comments. The account, @fascism.inc.v4, asked followers to caption an image of Jews around a table. One replier suggested, “Jews when they’re about to eat a Christian baby,” repeating false, centuries-old “blood libel” claims that Jews murder Christian children to use their blood for ritual purposes.18 Instagram also suggested this account once to the teen control persona.

The above examples were the most extreme forms of antisemitism encountered in this study, and Instagram pushed them almost exclusively to the 14-year-old engagement persona. None of the four adult test personas received these recommendations.
It’s not clear why Instagram pushed the most egregious content to this teenage persona, given that all of the personas in this study searched the platform for the same set of terms to establish their interests and were set up according to the same methodology. Two of the adult personas also clicked on Instagram's recommendations, meaning they engaged with the platform's recommended content in the same way that the teenage persona did.

The findings raise questions about whether Instagram is pushing more extreme content at young people to keep them engaged, amid growing competition with TikTok for the attention of young people. TikTok has surged in popularity in recent years, with 67% of 13- to 17-year-olds using the app in the U.S., compared with 62% who are on Instagram, according to a 2022 survey by the Pew Research Center. However, the sample size of this experiment is too limited to determine whether Instagram's algorithm prioritizes more extreme content for youth as a general matter.

Whatever the reason, the fact that Instagram is serving this kind of anti-Jewish hate and pro-Nazi propaganda to a teenager's account is cause for concern. Mass shooters, who are often young men, are increasingly inspired by white supremacist ideas online. Recent examples include the 18-year-old gunman who killed ten Black people at a Buffalo grocery store in May 2022 and a 19-year-old Michigan man who was recently charged with planning an attack on a synagogue. Some of the Buffalo victims' families are suing social media companies, including Instagram parent company Meta, for promoting white supremacist propaganda to a teenager’s account is cause for concern. Mass shooters, who are often young men, are increasingly inspired by white supremacist ideas online.

Instagram allows users to stop their own recommendations, meaning they have no way to avoid the platform's algorithmic recommendations. Instagram frequently touts its safety and security tools, including parental controls and the ability to mute profiles from generating a list of suggested accounts when someone follows them, but it does not allow users to proactively block such suggestions to them, meaning people have no way to avoid the platform's algorithmic recommendations.

While Instagram's algorithms recommended the most extreme antisemitic content to the teenage engagement persona in this study, the adult personas also received a steady stream of antisemitic recommendations. For example, Instagram suggested @lukewearechange to the adult male engagement persona nine times. Run by self-described “patriot journalist” Luke Rudkowski, @lukewearechange posts conspiratorial memes, including about British investment banker Jacob Rothschild, that contribute to an ecosystem of antisemitism on the platform. The Rothschild family is the subject of a longstanding antisemitic conspiracy theory that plays on stereotypes of Jewish power and connection to money.

Instagram also suggested @lukewearechange three times to the teen engagement persona and once to the adult female engagement persona.

Rudkowskis's posts frequently attract antisemitic commenters, including one who suggested Jacob Rothschild eats “Infant blood and cheerios for breakfast,” a reference to the false, centuries-old allegation that Jews murder Christian children to use their blood for ritual purposes. Another comment stated that a “degenerate” artist standing next to Rothschild in a photo is financed by the “((usual suspects)),” using the triple parentheses adopted by antisemites online to indicate Jewish individuals or groups. CTS has documented a similar phenomenon on Twitter, where reply threads on influential accounts act as social spaces for users to connect with shared antisemitism and other hate.

Instagram has allowed this account to rack up 126,000 followers and recommended it to users despite what appear to be repeated violations of Meta's hate speech policy, which prohibits “harmful stereotypes” and “claims that Jewish people control financial, political, or media institutions.” Instagram also suggested @lukewearechange three times to the teen engagement persona and once to the adult female engagement persona.

---

23 https://www.adl.org/resources/hate-symbol/echo
25 https://www.adl.org/resources/blog/threads-hate-how-twitters-content-moderation-misses-mark
26 https://archive.ph/YpEAN
28 https://www.adl.org/resources/glossary-term/blood-libel-false-incendiary-claim-against-jews
29 https://www.adl.org/resources/glossary-term/anti-semitism
30 https://extremismterms.adl.org/glossary/rothschilds
32 https://archive.ph/0uYCb
34 https://19.documentcloud.org/documents/1643164-Rothschild.html
36 https://www.adl.org/resources/hate-symbol/rothschild/
37 https://www.adl.org/resources/glossary-term/blood-libel/false-incendiary-claim-against-jews
38 https://www.adl.org/resources/hate-symbol/echo
Instagram pushed an account called @grandoldmemes multiple times to both adult engagement personas and the teenage engagement persona. The account posts conspiracy theory memes that frequently draw antisemitic comments. One person, commenting on a meme that portrayed George Soros as a chemist producing district attorneys in a lab (a reference to the billionaire’s support for Democratic prosecutors), warned, “Beware of the goblins,” using a centuries-old Jewish caricature.31 (Soros, a Hungarian-born Jewish billionaire, philanthropist, and Holocaust survivor, has become a particular target of far-right conspiracy theories).32

Another person, commenting on a meme that shows lizard people covering up the Jeffrey Epstein scandal, wrote, “Add some yamakules,” an apparent misspelling of the Jewish yarmulke. The conspiracy theory that reptilian humanoids are taking over the world has been linked to antisemitic tropes.33

The study identified another troubling issue on Instagram, related to its search prediction feature. The company says its artificial intelligence system predicts “relevant and valuable” search results as users type in the search bar.34 But researchers found that this Instagram feature often produced antisemitic content.

During the setup process for the six test personas, each persona typed “World Economic Forum,” one of the seeding terms, into the Instagram search bar. In each case, Instagram suggested an account called @worldevilforum in the top five results.

The account claims to be satire and is filled with cartoonish memes, but the memes consistently promote conspiracy theories about the World Economic Forum (WEF) that could contribute to antisemitic tropes and myths about the COVID pandemic and global Jewish control. The account focuses particular attention on a COVID-era conspiracy theory that a shadowy group of WEF global elites led by the organization’s founder and executive chairman Klaus Schwab is conspiring to force global populations to eat bugs.35

For example, the platform recommended @americafirstwarrior1776 to all four personas that followed @worldevilforum. The profile photo of @americafirstwarrior1776 is a logo associated with the America First Political Action Conference founded by white supremacist pundit Nick Fuentes.36

The account posts a variety of far-right memes with messages like “I fear global government” and screeds against “open borders,” transgender rights, and abortion.

Instagram also suggested @nowhiteguiltclips to three of the four test personas who followed @worldevilforum. The account is filled with video clips of Jason Köhne, a white nationalist and vlogger who has appeared on the podcast of the Nordic Resistance Movement, a fanatically antisemitic right-wing extremist group.37 Köhne rants about “white erasure” from Western civilization, a concept at the heart of the “Great Replacement,” a conspiracy theory about an effort to replace white-majority populations with minorities and foreigners.38 The theory has reportedly played a role in motivating recent mass shooters in the U.S.39

The company says its artificial intelligence system predicts “relevant and valuable” search results as users type in the search bar.34 But researchers found that this Instagram feature often produced antisemitic content.

During the setup process for the six test personas, each persona typed “World Economic Forum,” one of the seeding terms, into the Instagram search bar. In each case, Instagram suggested an account called @worldevilforum in the top five results.

The account claims to be satire and is filled with cartoonish memes, but the memes consistently promote conspiracy theories about the World Economic Forum (WEF) that could contribute to antisemitic tropes and myths about the COVID pandemic and global Jewish control. The account focuses particular attention on a COVID-era conspiracy theory that a shadowy group of WEF global elites led by the organization’s founder and executive chairman Klaus Schwab is conspiring to force global populations to eat bugs.35

Four of the test personas followed @worldevilforum during the setup process for their accounts. (The study’s methodology directed the personas to follow accounts that appeared in the top three results on searches for conspiracy terms.) When these users followed @worldevilforum, Instagram often suggested accounts that pointed toward more extreme forms of hateful content.

For example, the platform recommended @americafirstwarrior1776 to all four personas that followed @worldevilforum. The profile photo of @americafirstwarrior1776 is a logo associated with the America First Political Action Conference founded by white supremacist pundit Nick Fuentes.36

The account posts a variety of far-right memes with messages like “I fear global government” and screeds against “open borders,” transgender rights, and abortion.

Instagram also suggested @nowhiteguiltclips to three of the four test personas who followed @worldevilforum. The account is filled with video clips of Jason Köhne, a white nationalist and vlogger who has appeared on the podcast of the Nordic Resistance Movement, a fanatically antisemitic right-wing extremist group.37 Köhne rants about “white erasure” from Western civilization, a concept at the heart of the “Great Replacement,” a conspiracy theory about an effort to replace white-majority populations with minorities and foreigners.38 The theory has reportedly played a role in motivating recent mass shooters in the U.S.39
Additionally, Instagram suggested @christpill.anonymous to two of the four test personas who followed @worldevilforum. It features memes that display Nazi flags and promote the Goyim Defense League, an antisemitic network that frequently organizes offline actions targeting Jewish communities and individuals. 

Some of the @christpill.anonymous posts changed the spelling of words or tweaked videos, which is a common tactic to avoid detection by Meta’s automated content moderation systems. One meme spelled “Jewish” as “Jooish,” while a video of an Adolf Hitler speech obscured the Nazi leader’s face and referred to him as “A.H.”

In some cases when the test personas searched Instagram for “World Economic Forum,” the platform also suggested @worldevilforum’s backup account, @worldevilforum2. Extremists often maintain backup accounts on social media to ensure they continue to have a presence if their original account gets removed or restricted.

Instagram made other noteworthy recommendations for hateful content.

The platform suggested Gays Against Groomers 21 times to the adult male engagement persona. Gays Against Groomers is an anti-LGBTQ+ extremist coalition that spreads misleading narratives about “grooming” by drag performers and “indoctrination” by educators. The group’s Instagram account shares “groomer” memes and posts messages like, “Revolt against this disgusting agenda.”

Multiple posts in the Gays Against Groomers account are blurred out and marked by Instagram as “false information.” This illustrates that content moderation, algorithmic or otherwise, can identify posts as false and deceptive. But Instagram still recommended the account, despite saying it tries not to do so with accounts that “[j]recently and repeatedly posted false information as determined by independent third-party factcheckers or certain expert organizations.”

Instagram recommended Gays Against Groomers to the other engagement personas as well, but not as frequently: 10 times to the teenage engagement persona and five times to the adult woman engagement persona.
Facebook

Researchers tracked Facebook’s recommendations of Pages to the six test personas on the desktop version of the app. These recommendations were found on the Pages tab of each test persona’s home page, under the Discover feature.

The study found examples of Facebook recommending antisemitic Pages to all the test personas. But researchers noticed that Facebook often drove the personas toward antisemitic Pages during the initial setup process for their Facebook accounts. This occurred at the point when the personas entered the seeding terms into the Facebook search bar and followed the first search results that popped up, per the study’s methodology. In fact, the majority of the antisemitic content identified on Facebook came up during this setup phase.

For example, when all six test personas typed the seeding term “Rockefellers” into the Facebook search bar, the platform produced a Page titled “The Rockefellers and the Rothschilds are evil” as the top result. The Page, which had 12,000 followers, posits that these two prominent families are controlling events in the U.S.—a conspiracy theory that could contribute to antisemitic tropes. One meme on the Page states, “These are the men that lead our country to war, destroy our economy and steal our freedoms.”

As noted previously, the Rothschilds are at the center of longstanding antisemitic conspiracy theories about a cabal of Jews bent on world domination. They have sometimes been linked to other wealthy families, like the Rockefellers, in the minds of conspiracy theorists who see them tag-teaming on a plot to manipulate global events. The Page also promoted QAnon, the baseless conspiracy theory that the world is controlled by a “Deep State” of Satan-worshiping pedophiles. As ADL and others have noted, QAnon has marked undertones of antisemitism.

Facebook is hosting and recommending this antisemitic Page even though the company prohibits “harmful stereotypes,” including “claims that Jewish people control financial, political, or media institutions.” Facebook also banned QAnon in 2020. Notably, Facebook suggested this Page above less problematic content related to the Rockefellers. For example, the Facebook Page for New York’s famous Rockefeller Center, which had over 643,000 likes and a verified badge from Facebook, did not appear in the top search results.

When all six personas searched for the seeding term “World Economic Forum” on Facebook, the platform suggested the Page for “Wake Up News” in the top three results. The Page, which had more than half a million followers, promotes the work of 9/11 conspiracy theorist Richard Gage—frequently linking to his newsletter, website, and podcast—and makes a series of baseless claims against the Rothschilds. One video posted to the Page, titled “Rothschild Family 101,” opens with a news clip of a plane flying into the World Trade Center and launches into a baseless conspiracy theory about the Rothschild family’s role in the attack, playing into antisemitic tropes about Jewish control and responsibility for 9/11. The video has been shared more than 30,000 times and included multiple comments making death threats against the Rothschilds. The top two of the “most relevant” comments on the video post stated, “We should kill every last one of them for crimes against humanity” and “They should all be killed.”

Another meme posted by Wake Up News depicts a bearded Jewish man with a Star of David on his hat driving a car with the United Nations logo as the steering wheel, again tapping into the antisemitic trope that Jews control the world.

---

46 https://extremismterms.adl.org/glossary/rothschilds
48 https://www.adl.org/resources/backgrounder/qanon
49 https://transparency.fb.com/policies/community-standards/hate-speech/
51 https://archive.ph/3J5Dp
52 https://www.adl.org/resources/backgrounder/richard-gage-and-911-conspiracy-theories
Researchers did not systematically review comments on the recommended content in this study, but they did note examples that made violent threats. The above examples threatening the Rothschilds were categorized by Facebook as among the “most relevant” comments on the 9/11 conspiracy post. Facebook says the “most relevant” feature is designed to produce “high-quality comments that are relevant to you,” putting “friends’ comments and the most engaging comments first.” None of the test personas in this study had friend connections on Facebook, so that was not a factor in the platform’s categorization of these comments as most relevant.

In another case, Facebook recommended a Page titled, “The Rothschilds, The Rockefeller, The Vatican And The British Crown.” The Page’s posts include a grainy photo of people gathered around a circular conference table, with the text “WHO ARE ‘THEY’” and “COMMITTEE OF 300”—a reference to the conspiracy theory that there are 300 Jews who run the world. Facebook suggested this Page to five of the six personas in the experiment: both adult men, both teenagers, and the adult female engagement persona.

There are a number of factors to consider with Twitter, before diving into the results of this section. The company is in the midst of managerial turbulence that has upended its operations. Since Elon Musk acquired the platform in October 2022, its policies, features, and design have repeatedly changed. This leaves researchers chasing a moving target. Given these variables, researchers likely captured only a snapshot in time of Twitter’s algorithmic recommendations.

For this investigation, researchers set up Twitter accounts for the six test personas. Researchers set up most of the accounts between Feb. 22 and Feb. 28, 2023, but didn’t succeed in creating the adult female engagement account until March 13, nearly two weeks later, because of repeated Twitter system crashes. The delay means that the female engagement persona may have been subject to different algorithmic patterns than the other personas.

At the time of the experiment, Twitter required new users to follow at least one account to complete the sign-up process. This step was previously skippable. During signup, researchers had each persona follow Twitter’s top suggestion—Elon Musk.

Once researchers finished setting up the six test personas on Twitter, they found numerous examples of the platform recommending accounts that spread overtly antisemitic messages.
For example, Twitter suggested the account @ikennect 11 times to the adult female engagement persona and once to the adult male engagement persona. The account tweeted a meme showing George Soros in a pantheon of “criminals” with a Nazi flag in the background and retweeted an image of Soros and Jacob Rothschild in a collection of “evil” people who “come cloaked in virtue and good intentions to fool you.”

Soros was a frequent target in the Twitter-recommended accounts. One account called @HeavenScent88 tweeted a photo of Soros with the caption, “The face of a DEVIL,” and warned about elites trying to create “One World Government,” touching on antisemitic tropes. The “88” in the account’s username could suggest Nazi sympathies, given that the number often serves as white supremacist numerical code for “Heil Hitler” owing to the fact that H is the eighth letter of the alphabet. Twitter suggested this account to the adult female engagement and teen engagement personas.

Another account that Twitter pushed twice to the female engagement persona tied Jews to baseless COVID conspiracy theories. The account, @Ttss0834White, tweeted a meme that claimed, “EVERY SINGLE ASPECT OF COVID IS JEWISH,” adding that the vaccines “can manipulate the DNA of certain individual racial groups, like Aryans, while leaving others, like Jews, alone.” The account also tweeted that the “big secret behind the mass vaccination campaign is that its pushers are exclusively Kabbalah JEWS.” Since the pandemic began, extremists have often merged antisemitism with COVID conspiracies, accusing Jews of using vaccines to profit from and control the world’s population.

YouTube Continued

Researchers logged the videos that YouTube recommended to each test persona on their homepages. This occurred every day for 30 days.

Notably, YouTube was the only platform that did not recommend antisemitic content to the test personas. The platform did suggest videos related to the seeding terms used to set up the accounts, but the videos did not contain evidence of antisemitism. This suggests that platforms can, and should, tune their algorithms to provide relevant content to users without leading them down antisemitic or hate-filled rabbit holes.

For example, YouTube’s top three recommendations to the 14-year-old engagement persona were a fan-made video of characters from the Warhammer 40K game (recommended 29 times); a satirical rap battle between Steve Jobs and Bill Gates (recommended 27 times); and a fan edit of the song “False Flag” by Eminem and Linkin Park set to scenes from the Japanese anime series “Hunter x Hunter” (recommended 21 times). Each video had a title that included one of the seeding terms (Warhammer 40K, Bill Gates, and False Flag), but did not feature antisemitic language or images. All three of these videos led to a YouTube Mix, or personalized playlist of videos with similar content.

One of the top YouTube recommendations to the adult male and female engagement personas was a 2011 music video for pop singer Katy Perry’s “E.T.” featuring Kanye West. Another top recommendation to the adult female engagement persona was a 2015 music video for the song “FourFiveSeconds” by Rihanna, Kanye West, and Paul McCartney. The videos included Kanye West—one of the seeding terms— but neither featured antisemitic lyrics or symbolism. These videos also led to YouTube Mixes.

YouTube, like the other tech platforms, has policies that prohibit hate speech against Jews and other groups. As part of a June 2019 update, YouTube said it would ban “videos alleging that a group is superior in order to justify discrimination, segregation or exclusion based on qualities like age, gender, race, caste, religion, sexual orientation or veteran status.” In announcing the update, YouTube said it would specifically ban promotion of Nazi ideology and Holocaust denial.

YouTube hasn’t always effectively enforced these rules. As ADL noted in August 2019, YouTube channels spreading antisemitic and white supremacist content continued to operate on the platform months after the announcement of the hate speech crackdown. That being said, YouTube did rate higher than many of its peers on ADL’s 2023 Holocaust Denial report card, earning at C+ due to taking some actions on reports of hateful content and providing an explanation of its reasons for doing so. Similarly, this study indicates that YouTube has made progress in removing such content from its recommendation engine.

---

60 https://archive.ph/88
62 https://archive.ph/oz00Y
65 https://archive.ph/Q0599
66 https://archive.ph/Woa2v
67 https://www.adl.org/resources/blog/despite-youtube-policy-update-anti-semitic-white-supremacist-channels-remain
Detailed Methodology

Account Set Up

- Researchers set up six virtual machines, each with a unique IP address, and acquired six cell phone SIM cards, each associated with a unique phone number.
- Researchers created six personas, two to represent teens, two to represent adult men, and two to represent adult women. Each persona was assigned a dedicated virtual machine and phone number.
- Using the dedicated virtual machine and phone, researchers created a unique Gmail account for each persona:
  - The two teen accounts used a birthdate from 2008 to identify the users as teens. Researchers selected "I’d rather not say" when prompted to enter a gender.
  - Two accounts used a birthdate from 1990 and selected "female" from the gender identification menu.
  - Two accounts used a birthdate from 1990 and selected "male" from the gender identification menu.
- Using the Gmail address created in the previous step, researchers created accounts on Facebook, Instagram, and Twitter. (YouTube uses the same account as Gmail). They used the same birthdates and gender identities provided in the Gmail step for each persona.
- In each group of personas (teen, adult woman, and adult man), researchers internally labeled one as a "control" persona that does not engage with recommended content and the other as an "engagement" persona that would follow and click on recommendations.
- As of August 11, 16 of the 19 accounts, pages, and profiles cited in this report remain active on the platforms.

Seeding Terms

All six personas searched for and followed content related to the same set of "seeding" terms to establish their interests. The terms included words and phrases related to common conspiracy theories; words and phrases related to anti-Jewish tropes; the names of people and organizations who have become the subjects of conspiracy theories; the names of public figures who have made antisemitic comments; and the names of influencers who have made other kind of hateful comments. The majority of terms are not inherently conspiratorial and can also stand alone as innocuous phrases.

The list also included the names of popular online personalities, social media accounts, and video game references with no connection to antisemitism or conspiracies.

<table>
<thead>
<tr>
<th>Term</th>
<th>Username/Account Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ancient Aliens</td>
<td>Matt Walsh</td>
</tr>
<tr>
<td>Andrew Tate</td>
<td>Mr. Beast</td>
</tr>
<tr>
<td>Ben Shapiro</td>
<td>New World Order/NWO</td>
</tr>
<tr>
<td>Bill Gates</td>
<td>Open Societies (Soros)</td>
</tr>
<tr>
<td>Candace Owens</td>
<td>Paradox Games (Crusader Kings, Europa Universalis, Hearts of Iron)</td>
</tr>
<tr>
<td>Catturd</td>
<td>PewDiePie</td>
</tr>
<tr>
<td>Charlie Kirk</td>
<td>Rachel Campos-Duffy</td>
</tr>
<tr>
<td>Climate Change</td>
<td>Red pill / redpill</td>
</tr>
<tr>
<td>Covid/Anti-vax</td>
<td>Rockefellers</td>
</tr>
<tr>
<td>Cozy</td>
<td>Roosh</td>
</tr>
<tr>
<td>Dota 2</td>
<td>RT</td>
</tr>
<tr>
<td>Elites</td>
<td>Save/our children</td>
</tr>
<tr>
<td>Elon Musk</td>
<td>Steven Crowder</td>
</tr>
<tr>
<td>False Flag</td>
<td>The Babylon Bee</td>
</tr>
<tr>
<td>Flat Earth</td>
<td>The Deep State</td>
</tr>
<tr>
<td>George Soros</td>
<td>The JQ</td>
</tr>
<tr>
<td>Globalists</td>
<td>The Media</td>
</tr>
<tr>
<td>Graham Hancock</td>
<td>The Quartering</td>
</tr>
<tr>
<td>Greed</td>
<td>Tim Pool</td>
</tr>
<tr>
<td>Invaders/Invasion</td>
<td>Tradwife</td>
</tr>
<tr>
<td>Joe Rogan</td>
<td>Turning Point USA</td>
</tr>
<tr>
<td>Jordan Peterson</td>
<td>Valorant</td>
</tr>
<tr>
<td>Kanye West/Ye</td>
<td>Warhammer 40K</td>
</tr>
<tr>
<td>Kyrie Irving</td>
<td>World Economic Forum/ WEF</td>
</tr>
<tr>
<td>Libs of TikTok</td>
<td>xQc</td>
</tr>
</tbody>
</table>

** TTP funding includes grants from George Soros’ Open Society Foundations, techtransparencyproject.org/about-us
INTERVENTION: FACEBOOK, INSTAGRAM, AND TWITTER

01

To seed the accounts, researchers logged into Facebook, Instagram, and Twitter via the virtual machine associated with each persona. They then searched for each seeding term in the search bar and followed three pages or accounts associated with each term.

Note: Unlike other platforms, Twitter requires users to follow at least one user when they are first setting up an account.

For each seeding term, researchers did the following:

- Document the auto-filled suggested searches that appeared below the search bar when the user typed in a seeding term.
- If the seeding term is a person or group:
  - Look for an “official” or “verified” page or account in the search results.
    - “Follow” or “like” this page.
  - Look for a page/account associated with their podcast, company, show, or media outlet in the search results and follow that. “Follow” or “like” this page.
  - Follow an additional one to three pages or accounts (for a total of three) from the search results with more than 100 followers. “Follow” or “like” each of these pages.
- If the seeding term is a phrase: Identify the first three pages with more than 100 followers that do not belong to official media outlets, officials, organizations, or corporations. “Follow” or “like” each of these pages.
- Record all related pages or accounts recommended to each persona when a user “likes” or “follows” a page.

02

After 10 days, researchers logged in as each persona and recorded the content on the “discover” tab (Facebook) or the “suggested for you” tab (Instagram and Twitter). After each intervention, researchers paused for ten days to allow the platforms to infer the personas’ interests from their activity, including any interactions with recommended content.

- The “control” personas recorded but did not engage with any of these recommendations.
- The “engagement” personas did three things:
  - “Followed” or “liked” each page on the “discover” tab.
  - Recorded but did not follow all related pages recommended to each profile when a user “likes” or “follows” a new page.

03

After 20 days, researchers logged in as each persona and recorded the content on the “discover” tab (Facebook) or the “suggestions for you” tab (Instagram and Twitter).

- The “control” personas recorded but did not engage with any of these recommendations.
- The “engagement” personas did three things:
  - “Followed” or “liked” each page on the “discover” tab.
  - Recorded but did not follow all related pages recommended to each profile when a user “likes” or “follows” a new page.

04

After 30 days, researchers logged in as each persona and recorded the content on the “discover” tab (Facebook) or the “suggested for you” tab (Instagram and Twitter).

- The “control” personas recorded but did not engage with any of these recommendations.
- The “engagement” personas did three things:
  - “Followed” or “liked” each page on the “discover” tab.
  - Recorded but did not follow all related pages recommended to each profile when a user “likes” or “follows” a new page.
INTERVENTION: YOUTUBE

01

To seed the accounts, researchers logged into YouTube via the virtual machine associated with each persona. They then searched for each seeding term in the search bar and watched and liked three videos associated with each term.

For each seeding term, researchers did the following:

- Documented the auto-filled suggested searches that appeared below the search bar when the user typed in a seeding term.
- Sorted the search results by the most viewed videos.
- Watched the first five minutes of the top three most viewed videos and liked each of these videos. The study directed researchers to watch the videos for five minutes because YouTube’s recommendation algorithm places significance on time watched in addition to clicking on videos.68

02

Researchers then used a browser automation tool to automatically record the recommended videos on the YouTube homepage each day for the next 30 days.

03

After 15 days, researchers logged in to each “intervention” account and watched certain recommended videos. To determine which videos to watch, researchers searched for each seeding term within the list of the videos that had been recommended so far.

- Researchers then watched the first five minutes of two videos from each day’s batch of recommendations (30 videos total).
- Where possible, researchers watched the first two videos (by date and time) with a seeding term in the title.
- If a user had already watched one of the first two videos containing a seeding term, they skipped it and selected the next applicable video.

04

The browser automation tool continued to automatically record the recommended videos on the YouTube homepage for each account.

Ethnographic Research

Following the conclusion of the 30-day experiment, TTP engaged in non-participant observation on Instagram, Facebook, Twitter, and YouTube to examine the content recommended to each persona. Researchers took note of differences across personas, over time and across platforms to form the analysis in this report.

---

** TTP funding includes grants from George Soros’ Open Society Foundations. techtransparencyproject.org/about-us
Limitations

01
The algorithmic amplification study only analyzes the content recommended to users who search for or click on conspiracy theories, partisan commentators, and concepts that sometimes appear alongside antisemitic tropes. It does not offer insight into platform recommendations to users who express no interest in fringe ideology.

02
This study was conducted on freshly installed operating systems and browsers that were only used in the course of this experiment. Many social media platforms target content to users based on their activity on third-party sites and apps. This study does not capture recommendations based on that activity.

03
None of the social media platforms covered in this study provide complete information about the inputs that inform their recommendation algorithm. It is possible that the types of engagement studied here have less of an impact on platform recommendations than other user behaviors. For example, YouTube’s parent, Google, has disclosed that the length of time spent watching a particular video affects the platform’s recommendation algorithm. For the sake of expediency, researchers only watched the first five minutes of each video.

04
Similarly, recommendation algorithms may require more than 30 days to “learn” user behaviors. This study does not provide a complete portrait of how social media users might be radicalized over time.
Leadership

ADL Leadership

Ben Sax
Chair, Board of Directors
Jonathan Greenblatt
CEO and National Director
Mike Sheetz
President, Anti-Defamation League Foundation
Adam Neufeld
Senior Vice President and Chief Impact Officer

Center for Technology and Society

Yaël Eisenstat
Vice President
Lauren Krapf
Director of Policy & Impact, Lead Counsel

Take Action

Partner with ADL to fight hate in your community and beyond.

• Sign up at adl.org for our email newsletters to stay informed about events in our world and ADL’s response.

• Report hate crimes and bias-related incidents in your area to your regional ADL office.

• Engage in respectful dialogue to build understanding among people with different views.

• Get involved with ADL in your region.
Featured Resources

From the ADL Center For Technology and Society

Bad Gateway
How deplatforming affects extremist websites

2023 Support for Targets of Online Hate Report Card
https://www.adl.org/resources/report/blockfilternotify-support-targets-online-hate-report-card

Block/Filter/Notify: Support for Targets of Online Hate Report Card
https://www.adl.org/resources/report/blockfilternotify-support-targets-online-hate-report-card

Online Hate and Harassment: The American Experience 2023
https://www.adl.org/resources/report/online-hate-and-harassment-american-experience-2023