# **Gaming The System:**

How Extremists Exploit Gaming Sites And What Can Be Done To Counter Them





Center for Business and Human Rights

May 2023

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#### Acknowledgments

Thanks to the Open Society Foundations for their continued support of our work on technology and democracy.

# **Executive Summary**

Extremist actors are exploiting online gaming sites to disseminate violent ideologies, network with likeminded people, and perpetrate real-world harm. The sites where these actors operate include both those offering online video games and "gaming-adjacent" platforms, which host content and discussions related to gaming.

A growing body of evidence shows that bad actors exploit basic features of video games and adjacent platforms to channel hate-based rhetoric, network with potential sympathizers, and mobilize for action – sometimes with deadly consequences. This report draws on existing literature; fresh interviews with gamers, gaming company executives, and experts; and findings from a multinational survey of gamers conducted in January 2023.

Online gaming is an enormous industry unto itself. In 2022, the global video game industry generated revenue of almost \$200 billion and provided entertainment to more than three billion consumers around the world. The largest technology companies—including Microsoft, Amazon, Apple, Facebook, and Google—are heavily invested in gaming as owners of major game studios and their blockbuster titles, dominant distribution platforms, and popular gaming-adjacent sites.

A growing body of evidence shows that bad actors exploit basic features of video games and adjacent platforms to channel hate-based rhetoric, network with potential sympathizers, and mobilize for action-sometimes with deadly consequences. The relative ease with which extremists have been able to manipulate gaming spaces points to the need for urgent action by industry actors to avoid further harm. Although some gaming companies have made recent investments in content moderation technologies and systems, most companies are still far behind in terms of adequately governing and mitigating abuse of their platforms.

This call to address extremist exploitation became more urgent in April 2023 in the wake of media reports that the large gaming-adjacent platform, Discord, had been used by a young U.S. air national guardsman for the reckless and allegedly illegal sharing of top-secret military documents, which then were spread to other online sites. Separately, Microsoft's president, Brad Smith, revealed in an interview in April that his company had detected Russian operatives seeking to infiltrate discussion groups on Discord made up of people who play Microsoft's popular online game Minecraft.

Yet another reason to pay attention to the ways gaming spaces have been misused is that the technologies that help make video games so appealing are poised to become far more common. Immersive and interactive features of games are precursors of the "metaverse" platforms that Meta (formerly Facebook) and other companies are trying to develop. Heeding the popularity of gaming, these companies are pouring billions of dollars into the creation of a fully immersive 3-D Internet. Addressing the extremist exploitation of gaming spaces today will better prepare the industry to usher in new technologies while preventing harm to individuals and societies.

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# 1. Introduction

The extent to which video games have featured in the writings and acts of recent mass shooters suggests a connection between contemporary gaming, radicalization, and violent extremism.

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On the afternoon of March 15, 2019, a 28-year-old Australian gym trainer entered a crowded mosque in Christchurch, New Zealand, carrying a large-capacity semi-automatic rifle and a GoPro camera strapped to his forehead. As he began methodically murdering Muslim worshipers, nearly 200 users of Facebook Live watched as person after person dropped dead on the floor.<sup>1</sup>

Minutes before the livestream began, the Christchurch shooter shared links to his manifesto, entitled "The Great Replacement," where he sardonically credited the video game Spyro: Year of the Dragon for teaching him ethnonationalism and another game, Fortnite, for "train[ing] me to be a killer... and to floss on the corpses of my enemies" (the floss is a characteristic dance move performed by characters in Fortnite).<sup>2</sup> Whereas the live stream itself was viewed by fewer than 200 people, footage was re-uploaded 1.5 million times in the 24 hours after the attack.<sup>3</sup> Within seven days of the massacre, in which 51 people died and another 40 were wounded, independent video game developers had produced and circulated online first-person shooter games based on this footage.<sup>4</sup>

An investigation by the New Zealand government revealed that the attacker was an avid participant in online role-playing games and first-person shooter games. His community of online gamers had long provided an audience for his racist and extremist ideas.<sup>5</sup> And his portrayal of the carnage as if it were a game, echoing propaganda and recruitment tactics used by jihadi terrorists years earlier, laid a roadmap for aspiring far-right extremists.<sup>6</sup>

Sure enough, copycats were quick to follow. In April 2019, a little over a month after the Christchurch tragedy, a 19-year-old male shooter opened fire at a synagogue in Poway, California, while live-streaming to his followers. One of the spectators commented during the livestream, "get the high score"-a common phrase used among gamers.<sup>7</sup> In early August of the same year, a 21year-old man shot 23 people dead in a Walmart in El Paso, Texas. In his manifesto, he echoed the Christchurch shooter's conspiracy theory of "white replacement," the notion that shadowy elites are plotting to destroy white populations and culture through immigration and other policies, and mentioned a desire to live out his super soldier fantasy from the video game, Call of Duty.8 A month later, on Yom Kippur, another farright militant launched a livestream on Twitch, a popular site among gamers, as he prepared to murder worshippers at a synagogue in Halle, Germany.<sup>9</sup> The shooter killed two bystanders and, like those before him, left a manifesto riddled with references to far-right conspiracies couched in gaming jargon.<sup>10</sup>

Mass shootings perpetuating this pattern continued into 2022. In May, an 18-year-old man who murdered ten Black people at a supermarket in Buffalo, New York, justified his attack as a necessary response to "white genocide."11 He kept a detailed personal diary on Discord, a social media platform popular among gamers, where he traced his racist nationalism to an online game<sup>12</sup> and detailed his strategy of "configuring technology for broadcasting the shooting."13 Minutes before opening fire at the Buffalo supermarket, the shooter invited selected members of his network to view a livestream of the massacre on Twitch.

The extent to which video games have featured in the writings and acts of recent mass shooters suggests a connection between contemporary gaming, radicalization, and violent extremism. The point is *not* that playing violent video games in itself leads to violent behavior. Extensive empirical research, spurred by school shootings in the 1990s, did not find conclusive evidence of a causal link between video games and real-world violence.<sup>14</sup> Instead, the connection involves extremist actors exploiting the structures and communication features of online gaming spaces to disseminate their radical ideologies, normalize hostile behavior, and indoctrinate impressionable users.

Discord's potential as a site for distributing dangerous material to impressionable users came to national attention in April 2023 when hundreds of classified U.S. intelligence documents exposing sensitive military information, including maps of Ukrainian air defenses, were leaked via Discord. A 21-yearold air national guardsman with access to top-secret information reportedly posted the material on his invitation-only Discord "server," or discussion group, which he called "Thug Shaker Central." The postings appeared to be motivated by the air guardsman's desire to impress a group of mostly teenage disciples who had bonded over racist memes, video games, and a fascination with guns. Prosecutors have alleged that the leaker had long entertained violent extremist ideas, including ruminations about a mass shooting aimed at "culling the weak minded." The documents soon found their way to other, more public Discord servers, including one called "Minecraft Earth Map," where they remained available to thousands of Discord users before coming to the attention of U.S. authorities weeks later.<sup>15</sup> In response to the leaks, Discord released a statement noting that "[p]osting illegal content or demonstrating racist behavior, both observed in this incident, are not welcome or allowed on Discord." The platform company did not explain how these materials could remain undetected by its content moderators for so many months.16

#### **Spreading Extremism**

This report defines extremism, after J. M. Berger, an expert on the topic, as a belief system held together by unwavering hostility towards a specific "out-group."17 Violent extremism, then, is the expression of that hostility through violence. Extremism in gaming principally makes itself evident through expressions of support for known extremist organizations and movements, as well as statements denigrating or justifying hostility toward specific groups. It also takes the form of hate-based harassment targeting people for intimidation and violence due to their perceived or imagined characteristics, such as ethnicity and gender identity. The individuals behind these actions

may be few in number, but their impact can be far-reaching—and, in exceptional cases, deadly.

Gaming, when it doesn't infringe on the rights or well-being of others, is a legitimate and potentially valuable form of entertainment. The world of gaming is remarkably heterogeneous, and some games have been observed to correlate with enhanced creativity, improved mood, and lower anxiety.18 Yet there is a darker side. The 2014 GamerGate harassment campaign, in which thousands of male gamers terrorized women gamer journalists and developers with threats of rape and death, is just one example of a noxious and influential gaming subculture. Ultimately, diminishing extremists' abuse of gaming spaces will enable greater and safer enjoyment of gaming.

Current understanding of extremism in gaming spaces draws mostly from gamer surveys and focus groups, inplatform investigative work by journalists and researchers, anecdotal evidence from media accounts, and analysis of police investigation files and other materials related to mass shootings. The empirical study of the misuse of gaming spaces by extremists has been limited by the gaming industry's reluctance to provide researchers with access to the information required to conduct large-scale quantitative studies. "Game companies for the most part don't want to share their data with researchers," Katie Salen, a professor at the University of California at Irvine, noted in an interview. "That is the big challenge."

#### Why gaming spaces matter

Video games don't just offer entertainment and escapism. Gaming platforms function as hubs for communication among groups of friends and strangers located around the world. With their ability to combine interactive gameplay and real-time conversations online, gaming spaces have become the social networking platforms of choice for a growing number of users, including very young people. Currently, 3.2 billion people worldwide play video games, and more than three-quarters of them, or over 2.4 billion, play online multiplayer games in which they interact and socialize with players on the Internet.<sup>19</sup> In the U.S. alone, an estimated 97 million people play online multiplayer games.<sup>20</sup>

Like more traditional social networking platforms, such as Facebook, You-Tube, and Twitter, online games connect people across borders to enable social interactions and relationship-building online. Not only do players compete and collaborate through their character feats and gestures, but they can also communicate in real time through text or voice chat functions in the games themselves.

Despite these similarities, gaming platforms tend to be left out of policy discussions about online social networks. Recent congressional hearings have placed the executives of the large social media companies under the spotlight for their contribution to the dissemination of extremist content and disinformation. Meanwhile, the gaming industry has largely been spared scrutiny.<sup>21</sup> This report aims to draw greater attention to challenges within this industry.

The term "gaming spaces" includes two broad categories of platforms. The first are the games themselves, which often offer in-game text and voice-chat functions. The second are "gaming-adjacent" social media platforms, which are third-party applications that were designed for gamers and continue to host a large portion of video-game content and discussions about gaming.<sup>22</sup> While these adjacent platforms are distinct from the games themselves, they can mirror games in many respects, including in their infrastructure, design features, and business models.

Yet gaming sites are different from traditional social networking platforms like Facebook and Twitter. They generally don't use algorithms to rank and recommend content. With some exceptions, they aren't driven by advertisement-based business modelsalthough this may change in the next decade or so<sup>23</sup>—and instead generate revenue from sales of premium content, accessories, and other virtual goods.<sup>24</sup> Rather than being public facing, they tend to be structured into largely selfcontained communities populated by users who speak anonymously with their usernames as aliases. And, in line with the real-time, interactive nature of gaming, the communications on these platforms are largely instant and ephemeral.

The features that make gaming spaces distinctive and appealing to many users also make them vulnerable to exploitation. A growing body of research shows that certain games and adjacent platforms are used by extremists for signaling, networking, and mobilization. Discord, in particular, hosts an alarming number of active chatrooms explicitly promoting extremist narratives and violence, which can be located in a matter of minutes. Even though most games and gaming spaces were not designed for this purpose, they can and do enable bad actors to perpetrate real-world harm.

While this report focuses on extremists' abuse of gaming sites, companies have left the door open for other ill-intentioned actors, including nation states with malicious aims, to exploit those same features to sow discord and instability in rival countries. In an on-stage interview at a conference in April 2023, Microsoft's president, Brad Smith, said his company has collected evidence of state-sponsored manipulation. "For the last several months, our digital threat analysis team has been identifying efforts by the Russians to basically penetrate gaming communities," Smith said. He added that the infiltration targeted a Discord server for enthusiasts of Minecraft, one of Microsoft's most popular online games.<sup>25</sup> In a follow-up email interview, Clint Watts, who heads Microsoft's threat analysis team, said that the Wagner Group, a Russian mercenary force playing a prominent role in the war against Ukraine, has promoted "malign narratives and propaganda" on Discord and an online gaming service called Steam, which also hosts discussion groups: "The malign narratives tend to be in line with pro-Russian talking points about Ukraine ('it's not a real country,' 'they're all Nazis,' etc.). The propaganda mainly seeks to make Wagner and the Russian military look cool and menacing."

# Harbingers of the metaverse

The weaponization of gaming spaces is also troubling because gaming is a harbinger of the larger metaverse-the three-dimensional, fully immersive cyberworld that may become "the future of the Internet" and eclipse two-dimensional social media.<sup>26</sup> Many of the most popular video games involve players as active creators of the experiences and stories in which they participate. These games immerse players in fictional worlds and offer increasingly sophisticated ways for players to exercise agency through their virtual personalities, or "avatars."27 As such, games embody a proto-metaverse.

Today, Silicon Valley companies are investing billions of dollars in the development of the metaverse, and they need to set up adequate guardrails to ensure that an expanded use of immersive virtual reality doesn't provide friendly terrain for bad actors seeking to cause harm.<sup>28</sup> Understanding how extremist and other ill-intentioned individuals exploit gaming spaces, and addressing those problems as early as possible, will better prepare industry and other stakeholders to grapple responsibly with the societal challenges that the metaverse will undoubtedly engender.

The study of gaming spaces serves another timely purpose. As the idea of decentralized social media gains increasing traction-evidenced by the growing interest in the microblogging platform Mastodongaming spaces provide an early indication of how the proliferation of self-governing online communities without content moderation capabilities might play out. Indeed, while there may be significant benefits to decentralizing authority and allowing the formation of diverse online communities in a so-called "fediverse,"29 there may also be downsides.<sup>30</sup> The flourishing of extremist networks in at least some of those autonomous communities is likely to be one of them.

This report sets out to accomplish four main goals. First, it introduces some of the main gaming industry players and explains the business models that have powered their spectacular growth. Second, it examines the structural, policy, and business decisions that have made gaming and gaming-adjacent spaces susceptible to extremist manipulation. Third, while recognizing that certain industry actors have taken steps to address the problem, the report points to deficiencies in various companies' approaches. Fourth, it proposes pragmatic steps gaming companies should adopt to mitigate the harm caused by extremists.

#### **Defining Extreme Behavior**

#### A focus on hate-based harassment and incitement

### This report focuses on two categories of harmful action that warrant explicit prohibition and an immediate response:<sup>31</sup>

- Hate-based harassment refers to the infliction of verbal or other abuse based on another player's actual or perceived identity.<sup>32</sup> Severe forms of harassment observed in gaming spaces include:
  - Stalking (gathering or monitoring someone's personal information for the purposes of intimidation).
  - Hate-raiding/mobbing (attacking someone in a coordinated fashion to overwhelm them with insults and threats).
  - Sexual harassment (making unwelcome and inappropriate sexual remarks or advances).
  - Threats of violence (making credible threats of physical violence toward someone or their loved ones).
  - Doxing (publishing someone's personally identifiable information, such as their address, for the purpose of intimidation).
  - Swatting (prank calling law enforcement to someone's location; the term refers to the dispatching of police SWAT teams).<sup>33</sup>
- Incitement to discrimination or violence refers to advocacy of ideas aiming to trigger hostility, including violence, toward a person or group based on their actual or imagined identity.<sup>34</sup>
  - Examples found in gaming spaces include "women should be raped" and "gas the Jews."<sup>35</sup>

### Severe harassment and incitement have been associated with several strains of extremism in gaming spaces, including:

- Militant jihadists, adherents of a version of Islam that advocates violence against perceived enemies of the religion.
- Far-right movements, including white supremacists and neo-Nazis, who use race or other identity factors to identify "inferior" groups and view violence as a legitimate political strategy.<sup>36</sup>
- Militant misogynists, such as the incel movement, short for "involuntary celibate," which advocates for violence against women.<sup>37</sup>

# 2. The Business Of Gaming

About 15 years ago, the gaming industry began evolving from a product-based model to one that is service-based. Before 2008 or so, the video game market revolved around the sale of consoles and game disks.

Consumers played individually or in small groups that gathered physically. Then, spurred by the widespread availability of consumer broadband and rapid adoption of smartphones, game makers began to make their titles available for download on digital platforms.<sup>38</sup> In addition to consoles, two other types of digital distribution platforms emerged: PC and mobile platforms.

Now players could connect with friends and strangers located anywhere in the world-the only requirement being that they have an Internet connection. The advent of cross-platform gameplay further expanded the reach of multiplayer games, as participants no longer had to buy a specific console to try new titles and could play across platforms with other gamers using a different device.<sup>39</sup> The ever-expanding player base and intensification of network effects eventually led to the development of "massively multiplayer online games" (MMOs) capable of connecting hundreds or thousands of players in a single game.

Rather than having to make the bulk of their revenue from the upfront

sale of game titles, game companies could now sell in-game items and upgrades for access to premium content. Many publishers began to make their games available for free while seeking to profit from ingame micro-transactions for "vanity items," such as custom avatars and accessories.<sup>40</sup> The emergence of live-streaming platforms like Twitch and the advent of international gaming competitions have given rise to a surge in the popularity of watching others play games, with "E-sports" audiences now sometimes numbering in the hundreds of thousands or even millions.

#### **Rising revenue**

In 2022, the global video game industry generated \$184 billion in revenue<sup>41</sup>—considerably more than the music and movie industries combined.<sup>42</sup> While the video game market has seen steady growth since the late 1990s, its rapid expansion in the period between 2015 and 2021 made it the entertainment and cultural juggernaut that it is today.<sup>43</sup> The COVID-19 pandemic appeared to accelerate this growth.<sup>44</sup> Today, more than three billion people worldwide play video games.<sup>45</sup> In 2022, according to the Entertainment Software Association, the U.S. had more than 215 million active video game players,<sup>46</sup> accounting for two-thirds of the national population.<sup>47</sup> In the U.S., 65% of adults and 71% of children under 18 play video games at least one hour per week.48 According to one estimate, Gen-Z gamers spend an average of 7 hours and 20 minutes on video games per week, and Millennials devote 6 hours and 50 minutes per week on average.49 While video games used to be a male-dominated activity, the gender gap has narrowed dramatically. In 2022, women in America accounted for 48% of gamers.50

The heterogeneity of contemporary gamers is matched by the extraordinary diversity of game types, genres, and titles. The exact number of games is difficult to estimate, but they number in the millions. Steam, the largest online marketplace for PC games, featured over 50,000 games in 2022.<sup>51</sup> The following selection of six widely acclaimed games provides a sense of the variety of games on the market.





#### Wars and Legends Popular Multiplayer Games



**Minecraft** players "mine" material to build structures and worlds of their choosing.<sup>52</sup> Owned by Microsoft, the game generated \$380 million in revenue in 2021.<sup>53</sup> An online multiplayer mode allows gamers to communicate with friends or strangers using a text chat function. The game is available

for a one-time fee or via a subscription. The company also makes money when players buy and sell community-created objects and custom avatars.<sup>54</sup>



Fortnite, a free-to-play game published by Epic Games, allows players to create their own experiences or compete to be the last person standing in the "battle royale" and "zero build" game modes. Playing solo or in teams of up to four, gamers parachute into a post-apocalyptic, zombie-popu-

lated world where they explore their surroundings, build defense structures, and acquire weapons for eliminating other fighters. There is in-game voice chat, which can be disabled selectively. In 2021, *Fortnite* generated \$5.8 billion in revenue.<sup>55</sup>



League of Legends is published by Riot Games, a company owned by the Chinese conglomerate Tencent. Two teams of five players battle each other in an arena called "Summoner's Rift." Combatants can communicate with opponents using text chat; voice chat is available for groups of friends.

Like other free-to-play titles, *League* generates revenue by means of purchases that allow players to customize their avatars. In 2021, *League* grossed \$1.63 billion in revenue.<sup>56</sup> The game draws millions of viewers during its annual E-sport competition.



**Call of Duty: Warzone's** most popular game mode is a 150-player, first-person shooter game published by Activision Blizzard. Players can use a range of weapons, from sniper rifles to submachine guns, as they strive to eliminate opponents in a fictional war-torn city. User-created mod-

ifications, or "mods," enhance realism by changing the game's setting to real-life conflicts in places like Iraq, Syria, and Ukraine. Activision Blizzard sells cosmetic items such as customizable weapons. One of the most lucrative video game franchises, *Call of Duty* has generated \$30 billion in profits since 2003.<sup>57</sup>



World of Warcraft is the most popular massively multiplayer online game on the market with approximately 122 million subscribers. After choosing a realm, or server, players journey through the expansive fictional universe of Azeroth. Each server hosts thousands of players playing simultaneously.

and games last indefinitely. Over time, players often join organizations called "guilds" and communicate with fellow guild members via text or voice chat.



**Roblox**, owned by Roblox Corp., is a game-creation system which also functions as a digital storefront and virtual social hub. It has been described as a proto-metaverse —a platform made up of sprawling virtual worlds.<sup>58</sup> *Roblox* provides users with a set of tools to create any virtual environment

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or experience they fancy, from a pizza factory to Mount Olympus.<sup>59</sup> An open-ended architecture allows for an infinite variety of virtual interactions with over nine million experiences created and over 50 million daily active users as of September 2022. *Roblox* made \$1.9 billion revenue in 2021, and is now valued at \$37 billion.<sup>60</sup>

#### Gaming-adjacent platforms

Despite the popularity of communicating and socializing within games, participant communities have expanded to gaming-adjacent platforms.<sup>61</sup>



Steam, a community-based online gaming service, was launched by the publisher, Valve, in 2003. Users can browse thousands of games and use search filters or curated lists to discover, download, and even modify video-game content. Steam makes the bulk of its revenue, which according to one estimate exceeded \$10 million in 2021.<sup>62</sup> from commissions of 20% to 30% on games sold on its platform. In addition, Steam charges developers a one-time \$100 fee to list their games on its marketplace.63 Steam also hosts discussion boards in multiple languages on its community tab, where users can find other gamers by searching their profiles, create and join community pages, participate in text threads, and hold real-time conversations using voice chat. Discussions typically focus on games, but also branch out into politics, finance, and other topics.



**Discord** was created in 2015 by Jason Citron, who sought to provide fellow gamers with a customizable communication platform that could also serve as a sustained social space, in contrast to in-game chatrooms, which generally disappear after a match ends. Discord hosts mostly private communities, called servers, where users can exchange text messages, multimedia, and other files. This setup mirrors the decentralized structure of gaming spaces. In addition to sharing messages and posts, which remain available on servers unless intentionally deleted, Discord users can initiate live audio and video calls with other server members. While similar to chatrooms like Reddit and Slack that also host gaming discussions, Discord is the most popular gaming-adjacent platform.<sup>64</sup>

Discord currently hosts conversations on various topics including politics, anime, sports, and finance. But most of the largest servers are those devoted to *Fortnite*, *Minecraft*, and other games.<sup>65</sup> Free to use, Discord derives most of its revenue, which totaled \$130 million in 2020,<sup>66</sup> from premium subscriptions to Discord Nitro as well as "server boosts" that offer perks such as better video and voice quality.<sup>67</sup> Discord continues to grow and was most recently valued at \$15 billion.<sup>68</sup>

**Twitch** is a live-streaming video site with an in-app chat function that caters principally to gamers. It was purchased by Amazon in 2014 for \$970 million. Its business model is similar to You-Tube's in that most of its \$2.6 billion in 2021 came from advertising, which it splits evenly with content creators.<sup>69</sup> Twitch has capitalized on the increase in audiences that watch gaming. In millions of unique streaming channels, the vast majority of which are public, users broadcast themselves playing games while others tune in to watch or chat with gamers in real time. The most successful Twitch streamers attract thousands of viewers on a daily basis.70 In addition to ad revenue, streamers can earn money through channel subscriptions as well as direct donations from viewers using the in-app

currency known as "bits." Twitch has drawn celebrities from beyond gaming, including actors, political figures, and online influencers.<sup>71</sup>

Riding on Twitch's popularity, a number of other live-streaming platforms have sprung up seeking to attract high-profile streamers and their followers. DLive. which promotes itself as a more laissezfaire version of Twitch, offers financial incentives not only to streamers, but also to engaged viewers.<sup>72</sup> Trovo Live, owned by Chinese-based Tencent, adopts a hands-off approach to content moderation and has served as a safe harbor for users already banned from Twitch and DLive. Odysee, a video-sharing site, promotes itself as a "free speech platform" and allows creators to post videos on decentralized servers supported by blockchain technology, which effectively renders impossible any content restrictions or removals.

The gaming industry has long understood that harnessing network effects is key to its success. Facilitating ingame communications increases a game's appeal,<sup>73</sup> and expanding options for socializing, both within games and in adjacent platforms, solidifies loyalty to specific games all of which boosts profits.

Today, more than three billion people worldwide play video games.

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# 3. How Extremists Exploit Gaming Spaces

The NYU Stern Center's representative survey, conducted in January 2023, found that 51% of gamers in five of the top videogame markets globally had come across some form of extremist statement or narrative while playing multiplayer games in the past year.

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Extremists have used gaming spaces strategically in at least six ways.<sup>74</sup> First, they sometimes design and produce bespoke video games that explicitly promote an extremist narrative.

Ethnic Cleansing, a first-person shooter game created by the U.S. white supremacist organization National Alliance in 2002, was advertised as follows: "[T]he Race War has already begun. Your character, Will, runs through a ghetto blasting away at various blacks and spics to attempt to gain entrance to the subway system...where the jews have hidden to avoid the carnage. Then you get to blow away jews as they scream 'Oy Vey!' on your way to the command center."<sup>75</sup>

While games like *Ethnic Cleansing* —and others of a similar genocidal variety, including titles like *Shoot the Blacks, Hatred, and Muslim Massacre* —generate some press attention and controversy, they tend to be ignored by the large majority of gamers, who consider them "crude" and "badly designed."<sup>76</sup> Nevertheless, these games are still available in some corners of the Internet and have been downloaded by hundreds of thousands of users.

A second strategy involves the modification ("modding") of existing video games to twist the narrative into an extremist message or fantasy. One example is the Islamic State terrorist group's modding of the first-person shooter video game, *ARMA III*, to make Islamic fighters the heroic protagonists rather than the villains.<sup>77</sup> With their powerful immersive quality, these video games have, in some instances, been effective at inspiring and allegedly training extremists to perpetrate realworld attacks.<sup>78</sup>

Third, extremist actors have used in-game chat functions to open lines of communication with ideological sympathizers and potential recruits. Although the lack of in-game communication data has made it impossible for academic researchers to track the presence of extremists in a systematic way, there is enough anecdotal evidence—including evidence obtained from police investigation files—to infer that in-game chatrooms can and do function as "radicalization funnels" in at least some cases.

Fourth, extremist actors use gamingadjacent platforms to convene likeminded individuals, socialize them into increasingly radical ideologies, and eventually mobilize them for action. Fifth, extremists have used gaming references in their propaganda to popularize their efforts, particularly among young audiences.<sup>79</sup> Finally, extremists engage in "gamification"— the appropriation of gaming motivational techniques to encourage violence in non-gaming contexts.

While this report touches on each of these six strategies, it focuses particularly on extremists' exploitation of private chatrooms in games and gaming-adjacent platforms. These communication channels are less visible to a general audience and therefore more insidious than outrageous games like *Ethnic Cleansing*. They also fall squarely within the domains—and responsibility—of mainstream game companies and adjacent platforms.

#### 'Radicalization funnel'

The potential of games to serve as radicalization funnels<sup>80</sup> is aptly illustrated by the case of two German children under the age of 14 who were radicalized by far-right communities in online video games between 2016 and 2021, as documented in German state police investigation files examined by Daniel Koehler and other researchers.<sup>81</sup>

The first child, "A," established a friendship with an older gamer, age 16, while playing a strategy-simulation game set in World War II on Roblox. After meeting several times on the virtual playground, the older gamer invited "A" to a far-right server on Discord, whose stated aim was to "liberate the country of all Jews and fags." The server's name was "NSDAP," the abbreviation for the German Nazi party, and its logo displayed a swastika. Upon joining the Discord server, "A" was given the status of "recruit" and placed within a hierarchy consisting of "SS" and "SA" subgroups, named after two notorious Nazi paramilitary organizations. In order to rise in status and gain access to more exclusive

information, members had to express an oath of allegiance to Hitler and the German Reich. Gaming, the original interest that had brought the friends together, never figured in the server's discussions. The older contact routinely involved the child in discussions about extreme-right politics and instructed him to perform offline behaviors to prove his loyalty, such as shouting "Heil Hitler!" in school or at home, which "A" readily did.

The radicalization of "B." another German child, followed a similar progression: an encounter with older extremists on Roblox, migration to far-right Discord servers, and indoctrination of radical viewpoints, including the notion that "life can only make sense through an attack." "B" had three primary contacts—a Swede, a German, and an American—who sent him far-right propaganda material via the "alt-tech" platform Bitchute, directed him to websites explaining how to build weapons, and taught him "everything about the true meaning of fascism." "B" took part in several Discord servers simultaneously-all readily identifiable as far-right groups -where he regularly posted memes paying tribute to terrorist groups and used the slogan "rather total war than total replacement" in English. His posts included answers to a membership questionnaire, where he described his belief system to be a "radical anti-Semitic ideology with similar characteristics as Fascism, only more radical." "B" and the American contact frequently discussed their willingness to perpetrate an attack, whose goal would be to surpass the "high score" from the Christchurch shooting. "B" received direct instructions to conduct the attack and write a manifesto. which was passed on to the police by an informant.

These examples show how gaming spaces can provide opportunities for social contacts and networks to form, followed by invitations to private online groups for further indoctrination and mobilization. But researchers generally have not been able to gain access to the in-game communications data reguired to determine the prevalence and effectiveness of such radicalization pathways.82 Only two major game companies, Roblox and Steam, provide access to some in-game data via their open application programming interfaces, or APIs.83 This general lack of access allows skeptics like Professor Christopher Ferguson of Stetson University in Florida to emphasize that there is "no evidence" of large-scale or systematic use of video games for extremist recruitment.<sup>84</sup> And yet, there is enough evidence from surveys and anecdotal reports to suggest that some games provide avenues for the expression, enactment, and normalization of extremist ideologies.

#### In-game chatrooms

In-game chatrooms provide a convenient meeting point for extremists and those who may be sympathetic or susceptible to their views. Shielded by the veil of anonymity, extremists feel emboldened to discuss radical beliefs openly.

To understand the ways that extremism surfaces in gaming chatrooms, the NYU Stern Center for Business and Human Rights commissioned a representative survey of multiplayer gamers in five of the top video-game markets globally.<sup>85</sup> The survey, conducted in January 2023, found that 51% of gamers in these markets had come across some form of extremist statement or narrative while playing multiplayer games in the past year. (See infographic on page 11.)

The 2022 edition of an annual survey conducted by the Anti-Defamation League (ADL) revealed that one in five adult gamers in the U.S. had encountered statements in support of white supremacist ideology while playing games. This experience was more pronounced in certain games: *Call of Duty, Grand Theft Auto, Valorant, World of Warcraft, Fortnite,* and *PUBG: Battlegrounds.*<sup>86</sup> Extremists have little to lose and potentially much to gain from disseminating their radical ideologies in gaming chatrooms. In most cases, those who disagree with the comment simply ignore or block the speaker. But in at least a few cases, extremist actors succeed in sparking interest in their ideologies and bringing new adherents into their fold. In the ADL's 2021 survey, 8% of gamers who had encountered extremist ideologies said they shared the information with someone who might agree. Another 8% said they were motivated to find out more about the topic, and 3% admitted to adding to the comment or "joining in."<sup>87</sup> These relatively small percentages translate to millions of Americans, some of

whom may find themselves lured into extremist views by what they see on these platforms.

The expression of extremism in gaming spaces goes beyond rhetoric. Gamers report alarmingly high rates of severe harassment, including the kinds of hate-based persecution associated with extremist beliefs. In NYU's multi-national survey, 36% of participants had experienced some form of extreme harassment while playing online multiplayer games in the last year. (See infographic on page 12.)

The ADL's 2022 survey found that a considerable amount of the harassment is identity-based and ideological in nature. Among adults in 2022, 47%

of women and 37% of LGBTQ+ players were harassed on the basis of their gender, while 44% of African Americans, 40% of Asian Americans, and 34% of Jews were harassed on the basis of their ethnicity.<sup>88</sup>

These findings suggest that the kind of sustained and acute harassment that transpired during #GamerGate is not an anomaly.<sup>89</sup> Extreme forms of online harassment can have acute psychological consequences.<sup>90</sup> According to the ADL's 2022 survey, 10% of adult gamers in the U.S., representing almost 8 million people, who experienced disruptive behavior while playing online multiplayer games reported having depressive or suicidal thoughts.<sup>91</sup>

#### **Encounters with Extremism**

Percentage of respondents who came across statements supporting the use of physical violence against a particular person or group based on their identity:

United States of America	35%
United Kingdom	25%
Korea	30%
France	25%
Germany	29%

#### Percentage of respondents under 18 who came across statements expressing support for the idea that:

The white race is superior to other races	16%
A particular race or ethnicity should be expelled or eliminated	17%
Using violence is justified or necessary to achieve a political aim	15%
Women are inferior	18%
Violence against women is justified	6%

Percentage of respondents who came across statements portraying a particular ethnic, gender, or religious group as inferior:

United States of America	<b>41</b> %
United Kingdom	31%
Korea	50%
France	23%
Germany	33%

# Percentage of respondents 18 and over who came across statements expressing support for the idea that:

The white race is superior to other races	13%
A particular race or ethnicity should be expelled or eliminated	16%
Using violence is justified or necessary to achieve a political aim	12%
Women are inferior	21%
Violence against women is justified	10%

For others, the sheer prevalence of misogyny, racism, and homophobia in online games can desensitize them to radical ideologies.<sup>92</sup>

The way that extremism manifests in games varies according to the experiences and functionalities that games provide. According to a study by the UN Office of Counter-Terrorism (UNOCT), highly competitive games involving fighting and violence among teams of strangers tend to host the highest rates of general "toxicity" and may contribute to the normalization of hateful rhetoric.93 First-person shooter games such as Call of Duty have, in exceptional cases, served as training tools for aspiring real-life terrorists. For example, the Norwegian terrorist Anders Breivik, who murdered 77 people in 2011, stated during his trial that he played World of Warcraft and Call of Duty: Modern Warfare 2 for "training purposes" in preparation for his mass shooting attack.94

Other games, such as the multiplayer online role-playing game World of Warcraft, encourage players to form virtual associations, or "guilds." Some guilds have served as neo-Nazi hubs which developed into persistent far-right online networks. For example, a guild called "Enclave" featured players in stylized Ku Klux Klan outfits surrounded by avatars personifying African American slaves.<sup>95</sup> Blizzard eventually disbanded this particular guild, which had been actively recruiting members on various games since 1998, after a U.S. congressman expressed alarm at its existence. However, the Enclave's members continue to create and populate guilds that brand themselves as "politically incorrect" and "uncensored."96 Activision Blizzard, the publisher of World of Warcraft and Call of Duty, did not respond to requests for comment.

Certain "sandbox games" provide players the tools for building and simulating all manner of extremist fantasies. User-created worlds in Roblox and Minecraft have included reenactments of Nazi and Uyghur concentration camps.<sup>97</sup> A long-running slave society on Roblox called The Senate and People of Rome, defunct since 2014, consisted of a rigidly hierarchical society under the command of the lead player, who anointed himself Caesar. At its height, the game involved hundreds of players occupying different roles as commoners, servants, patricians, commanders, senators, and magistrates. Members of the Caesar's exclusive army were instructed to "read SS manuals and listen to a far-right podcast about a school shooter." After the players' activities were uncovered by WIRED, some members claimed that they viewed allusions to Nazi mobile death squads, staged battles between slaves in the amphitheater, and even the virtual execution of one of the players, as simply part of a joke. But one player admitted that after "simulating

#### **Experiences of Severe Harassment**

United States of America	42%
United Kingdom	38%
Korea	42%
France	33%
Germany	32%

Percentage of multiplayer gamers who experienced any form of severe harassment (stalking, hate-raiding, sexual harassment, violent threats, doxing, or swatting) in the last year.

### Percentage of gamers under 18 who experienced severe harassment:

Stalking	9%
Hate Raiding/Mobbing	24%
Sexual harassment	15%
Threats of violence	15%
Doxing	6%
Swatting	3%

### Percentage of gamers 18 and over who experienced severe harassment:

Stalking	7%
Hate Raiding/Mobbing	15%
Sexual harassment	14%
Threats of violence	12%
Doxing	5%
Swatting	2%

life under Fascism" as a 14-year-old on People of Rome, he had since become even "more supportive" of it.<sup>98</sup>

A Roblox spokesperson noted that the company has community standards that "explicitly prohibit any content or behavior that supports, glorifies, or promotes terrorist or extremist organizations in any way" and a "dedicated team focused on proactively identifying and swiftly removing such content as well as banning those individuals who create it." In addition, the company said that it uses "state-of-the-art automated machine learning technology which scans every single image, video, and audio file for safety on submission, and an expert team of thousands of moderators who monitor for safety 24/7 and investigate reports submitted by our community." According to the company spokesperson, "Because of the swift, proactive steps we take, extremist content is extremely rare on our platform and therefore, for the vast majority of the *Roblox* community who do not seek out such content, it is very unlikely they would be exposed to it."

Despite Roblox's zero tolerance for extremist behavior, disturbing incidents continue to surface. In October 2022, a 10-year-old Jewish girl whose grandparents were Holocaust survivors encountered a recreation of the Third Reich on Roblox. When she entered the virtual space, one of the players stated, "We are Nazis and we are going to take over the world."99 The virtual world was active for more than 30 minutes and was taken down after the platform learned of its existence. In another incident in February 2023, a 16-year-old boy was detained under Singapore's strict anti-terrorism laws for projecting his terrorist fantasies on various ISIS-themed role-playing games on Roblox.<sup>100</sup> According to the Singaporean authorities, the teenager had used the game "to mimic his desire to be an ISIS member in real life." He pledged allegiance to an in-game ISIS leader, shot enemies, and assumed the role of "chief propagandist" for the virtual ISIS

faction.<sup>101</sup> To be sure, the vast majority of games on *Roblox* and *Minecraft* are harmless and unobjectionable. But by placing virtual world-creation tools at the fingertips of any user, these open-ended role-play games have lent themselves to extremist ideation.

#### Fertile ground

Several experts interviewed for this report agreed that games provide a compelling arena for extremists because of the access they provide to an enormous global audience of highly engaged young people including children, many of whom are impressionable and oblivious to the real-world consequences of their actions. *Roblox* alone hosts more than 26 million children under the age of 13 on a daily basis.<sup>102</sup> Some games, including Roblox, provide optional parental controls that limit chat capabilities and access to age-inappropriate games.<sup>103</sup> However, these controls can be circumvented and require constant parental vigilance.104

Many games bring together people with a shared interest and place them in situations where in-group collaboration and trust are solidified.<sup>105</sup> Finding a sense of community can be one of the most rewarding aspects of gaming, but also one of the most readily exploited. Christian Picciolini, a former white supremacist leader who later became a peace advocate, reflected on how games enhanced his susceptibility to radicalization. He wrote on Reddit: "They appealed to my desperate need for identity, community, and purpose. I was bullied and they provided safety. I was lonely and they provided family. That's how they draw people in, with a sense of belonging and 'humanitarianism.'" Today, he added, extremists "are using nefarious tactics like going to depression and mental health forums and in multiplayer gaming to recruit those same people."106

Extremists find a natural home in gaming spaces that already have a high tolerance for racist, misogynist, and

#### Extremist 'Guild'

The leader of a KKK guild in *World of Warcraft* 



Source: Vice News

homophobic statements.<sup>107</sup> Tolerating and engaging in such language has become so normalized that it is considered by some a defining aspect of the "gamer identity."<sup>108</sup> At the same time, the fictional setting of the game itself can provide a convenient cover for disguising or justifying extremist content as merely satirical.<sup>109</sup> According to Julia Ebner, a counterterrorism researcher who spent two years infiltrating extremist networks online, "gaming spaces are unique because you find a disproportionate amount of people who are prone to buying into the extremist propaganda." But if someone happens to call out a comment as alarming, "the speaker can retort that 'it was just part of the game." As Ebner noted in an interview, "they've become good at exploiting these blurred lines."

The storylines of many games are violent, which complicates the evaluation of speech. An expression such as "I will kill you" may have a benign meaning if it refers to killing a rival character in a game, as opposed to threatening another gamer with the

#### **Gamers Build Extremist Settings**



A user-built Nazi village on Roblox.



Screenshots of ISIS propaganda created by Singaporean teenager using *Roblox* game footage.

Sources: The Australian, Singapore Ministry of Home Affairs.

intent to commit homicide in real life. Extremists can capitalize on this ambiguity by pushing the bounds of acceptable rhetoric even further, making remarks like: "let's kill all the women." Steph Loehr, a transgender activist and Twitch streamer who has been the target of death threats and doxing in the gaming context, noted the role of humor in the normalization of extremism: "Especially if your joke is wellcrafted, you can get people on your side saying that person is over-reacting or they're losing their minds because they thought this was terrible."<sup>110</sup>

These methods have spread beyond the confines of gaming platforms, where gamified rhetoric has become a tool to conceal criminal behavior. On the infamous /pol/message board on 4chan, for example, users have taken to appending the phrase "in Minecraft" after explicitly calling for violent acts, hoping that their suggestion will be camouflaged as a joke.<sup>111</sup>

### Extremism in Discord and Steam chatrooms

Games provide access to large populations of highly engaged young people looking for community, some of whom turn out to be receptive to extremist rhetoric. But it is in the private quarters afforded by gaming-adjacent platforms that the more dangerous radicalization and mobilization occurs.

The events of May 14, 2022 provide a recent illustration of how these platforms can be weaponized with catastrophic consequences. Payton Gendron, the 18-year-old man who murdered ten people at a supermarket in Buffalo, New York, kept a personal diary on Discord where he described how to prepare the equipment, select targets, and use technology to broadcast the shooting.<sup>112</sup> These details were contained in a private server on the platform, meaning that only invited users could access it. The company presumably did not know of its existence, even though in principle all servers on Discord are subject to proactive detection systems. Minutes before Gendron opened fire at the Buffalo supermarket, he invited selected members of his network to join the server, where they would find the link to a Twitch livestream of the massacre.

Since the tragedy, Discord has publicly committed to enhancing its content moderation efforts, acknowledging that the platform "must do more to remove hate and violent extremism from Discord" and vowing to "continue to invest in and deploy resources" for this purpose.<sup>113</sup> But despite the company's instituting extensive and sensible content policies on paper, extremist material is still readily available on the platform if one knows where to look.

Discord's internal search function provides a seemingly inoffensive catalog of servers, giving the appearance of a well-moderated site. However, a simple search on Disboard, an online bulletin board founded by an anonymous Discord user called "Taki" and staffed by online volunteers, reveals an active web of servers on Discord explicitly advertising their extremist affiliations and recruiting members for organized action.

One of these servers, which appeared near the top of a search using the keyword "far-right" on Disboard, displayed five public tags, or labels, that immediately revealed its extremist nature. For example, the number "88" is a wellknown code for "Heil Hitler" ("h" being the eighth letter in the alphabet). The group advertised itself as a "gateway server" and promised access to a network that has "many members and is active all the time." The server offered a library of "natsoc" (abbreviation of "National Socialist," or Nazism) propaganda as well as opportunities to participate in "raiding/doxing" campaigns. In order to join the server, one needed only click the blue banner at the bottom, which led to the corresponding channel on the Discord app.

Discord is aware of Disboard's existence and actually facilitates its operation by providing the listing website access to Discord's content via its application programming interface, or API. Disboard's operation allows Discord to appear respectable, even as a stream of users are funneled to questionable private channels on Discord.<sup>114</sup> It is in these networks of cloaked servers that extremists tend to discuss their most dangerous intentions. When offered an opportunity to comment, Discord declined.

Discord offers a particularly useful infrastructure for extremists because of its decentralized architecture. Julia Ebner, who spent two years studying extremist networks on Discord, has noted that Discord volunteer server administrators often use separate channels to establish different levels of clearance for their members. The general server functions as an "arrival hall," where new recruits wait to be vetted before entering more "hardcore" forums, she observed. Vetting procedures can involve in-depth interrogations about the recruit's ideology, time-stamped photos of the recruit's skin color to exclude racial minorities, and proof of allegiance to the cause through participation in coordinated cyberattacks.<sup>115</sup>

#### How New Recruits Find Discord Servers

A selection of servers listed on Disboard that guide users to private extremist exchanges on Discord, a platform whose roots trace to online gaming.



Left: a recruiting notice for a self-proclaimed "militant" Discord server looking to recruit "for a better future." Middle: Discord server tag "O9A" refers to a Nazi Satanist organization considered by extremism experts to be among the most dangerous terrorist groups today.<sup>116</sup> Right: a come-on for a server calling itself "Goyim Hangout," using a pejorative term for a non-Jew appropriated by the far right.<sup>117</sup>

😥 DISBOARD 🔑 SEARCH 🐑 SERVERS 😭 RE	VIEWS	
The Organisation	StotronYT	EVROPA RISING EVROPA COMMUNITY 3 ONLINE
SANDBOX GAMES 2 ONLINE		POLITICAL ALT NATIONALISM NATIONALIST
MINECRAFT RECRUITING ELITE FAR-RIGHT	NS FAR-RIGHT ANTI-ANIME OCCUPIED NO-LGBTO	FAR-RIGHT
PARAMILITARY	This server has been occupied by the Einsaztgruppen!	Right Wing Political Server, Made up of Unique Christian European Identities.
An organisation (not the actual name) that has been around for a few years wants to get some more people in it,	♥ JOIN THIS SERVER	Join For -
we have a rank structure. And multiple jobs for successful candidates	55 days ago	Trustworthy Media Friendly Discussion Politics
		Politics Discovering your European Identity
Please just dm the owner when you're ready to begin the application process		
		Da Goyim Know Shut it down
🏷 JOIN THIS SERVER		<b>ザ JOIN THIS SERVER</b>
47 days ago		2 hours ago

Left: recruitment by an organization tagged as "paramilitary" and "far-right." Middle: A notice for an "anti-LGBT" Discord server "occupied by the *Einsaztgruppen*," an allusion to Nazi mobile killing units.<sup>118</sup> Right: "Da Goyim Know Shut it down," an anti-Semitic catchphrase popular among white supremacists.<sup>119</sup>

Source: Screenshots taken by author in October and November 2022.

### Far-Right Discord Server Listed on Disboard Bulletin Board

Gateway server looking to recruit for "far-right" organization



Source: Screenshot taken by author in November 2022.

By creating a sense of achievement upon joining certain "exclusive" channels, administrators are able to "gamify" the recruitment process—something that, in Ebner's view, may appeal to the gamer community.

In response to questions about its moderation of extremist content, a Discord spokesperson asserted that "Hate has no place on Discord and we are committed to combating violence and extremism of any kind." Nevertheless, some discussions on Discord have clearly foreshadowed violence. Several Discord servers were used by organizers of the large 2017 white supremacist rally in Charlottesville, Virginia, which resulted in the death of a counter-protester and injuries to many others.<sup>120</sup> More recently, an investigation into the Highland Park, Illinois, mass shooting of July 4, 2022, in which seven people were killed and 48 were wounded, revealed that the perpetrator managed his own Discord server, which he called "SS." He also often engaged with other Discord channels devoted to glorifying violence.121

The prevalence of extremist content is not limited to Discord. Steam. the most popular digital distribution platform for PC games, has long provided an online safe haven for neo-Nazi terrorist groups, including the Atomwaffen Division. Misanthropic Division, and Feuerkrieg Division.<sup>122</sup> The think tank ISD Global has documented multiple Steam forums organizing online harassment campaigns against groups and individuals labeled as "enemies."123 Steam seemingly makes little effort to monitor and moderate its community forums, which are riddled with comments glorifying violence that have been available on the site for years.124

A cursory search using common far-right keywords on Steam's community tab yields numerous results of gamer profiles paying homage to well-known extremist figures. On their own profile pages, some users openly support hostility toward minority groups, and a few have even announced detailed plans to commit violent attacks.<sup>125</sup> With its proximity to video games, Steam offers extremist groups a convenient platform to network with potential sympathizers over a shared hobby. Despite multiple attempts to obtain comment from Steam, the company did not respond.

#### Live-streaming violence

Twitch, the Amazon-owned livestreaming platform, has provided a stage where extremists have broadcasted their hate-inspired attacks to garner attention and inspire followers. For a time, Twitch generated thousands of dollars in ad revenue and in-platform donations for far-right commentators, including Terpsichore Maras-Lindeman, who fabricated conspiracy theories about ballot machines in an attempt to overturn the 2020 election,<sup>126</sup> and Zak Paine (also known as "Redpill78"), a Q-Anon adherent who encouraged his 14,000 followers on Twitch to treat cancer by drinking bleach.127 Twitch even afforded both streamers "partner" status, thereby granting them special privileges which boosted their visibility.128

In response to arowing scrutiny of the platform, Twitch has tightened its policies significantly. In March 2022, the company announced a new "harmful misinformation actor" policy, which prohibits content by those who persistently share widely proven falsehoods, including conspiracies that promote violence. This new policy, coupled with more rigorous enforcement of earlier prohibitions of hate, harassment, and extremism, resulted in the de-platforming of some of the most virulent repeat offenders, including Maras-Lindeman, Paine, and other influencers allied with extremist groups.129

Some of these influencers, however, have simply migrated to newer platforms, including gaming-adjacent sites

#### Fans of Nazism

Some *Call of Duty* players adopt screen names honoring Jewish genocide or Nazi leaders.



Source: Screenshot taken by author in November 2022.

like DLive and Trovo, which brand themselves as libertarian alternatives to Twitch.<sup>130</sup> DLive was the live-streaming platform of choice for those who participated in the January 6, 2021, insurrection at the U.S. Capitol.<sup>131</sup> In the lead-up to the mob attack on Congress, a former DLive employee alerted co-founder, Charles Wayn, that white supremacist and anti-Semitic influencers were pervasive across the platform. Reportedly, Wayn responded that the company "didn't want to get rid of these problematic streamers because they brought in numbers."132 Media reporting on DLive's involvement in the events of January 6th eventually compelled it to change its stance toward extremism, but its action has been too little too late. After being banned from both Twitch and DLive, prominent white nationalists have moved to even more permissive gaming-adjacent platforms, Trovo and Odysee, where they continue to upload streams and earn handsome donations through in-platform micro-transactions.133

Twitch representatives said in an interview that the platform is strengthening its content moderation capacity, deploying proactive protection mechanisms, investing in suspicious-userdetection methods, and equipping streamers with customizable safety tools. According to the company, which now has recruited domestic and international counter-extremism specialists to be part of its moderation staff, these efforts have resulted in a reduction of violent hate speech by 85% since its peak in 2021. The company representatives added that Twitch is able to review 80% of user reports of any kind within 10 minutes, and 99% within six hours, to determine whether a content violation has occurred. For reports citing incidents of terrorism, violent extremism, hateful conduct, and sexual harassment the response time is less than five minutes, Twitch claimed.134

But even these concerted company efforts don't deter some of the most motivated violent actors. Since the

#### **Tributes to Atrocities**

User profiles on Steam praising Nazi brutality.



Top: A Steam account using an intentional misspelling of the phrase "gas the Jews" in order to avoid automatic filtering. Bottom: a user on Steam who named himself "Himmler" and writes in German, "I was in the gassing of the Jews."



Source: Screenshots taken by author in November 2022

platform allows any streamer to broadcast their actions in real time, extremists without a known history of on- or off-platform violations have a window of opportunity to air their attacks and cause significant harm before the company's moderation team would have time to act. The Buffalo shooter, for instance, was able to livestream that atrocity for nearly two minutes—enough time to ensure viral dissemination of the horrific incident by numerous other people.<sup>135</sup>

A less severe but more frequent occurrence has been the use of Twitch livestreams to perpetrate "hate-raids" -coordinated online harassment and intimidation campaigns directed at individuals belonging to minority groups. Such campaigns, which are often organized on sites like Discord and Steam, but sometimes perpetrated using Twitch's own "Raids" feature, 136 typically involve extremist groups programing bots or instructing their armies of online trolls to inundate the pages of prominent women, people of color, and LGBTQ+ creators with vicious insults and threats.

In response to pressure from victims and their supporters, the company has rolled out technologies over the past year designed to mitigate hate-raiding.<sup>137</sup> In addition, Twitch has sued two people linked to hate raids "to demonstrate to other potential bad actors how seriously we take these offenses."138 However, creators targeted by hate-raids maintain that the company could do even more to protect its users from harm.<sup>139</sup> The popular Moroccan-Canadian gamer who goes by the name of "Pokimane," for example, continued to be the target of intense harassment campaigns by incel communities in 2022. The attacks reportedly forced her to take a temporary hiatus from the platform "to focus on her mental health."<sup>140</sup>

# 4. The Industry's Belated Reckoning With Extremism

### "

Many large and profitable gaming and gamingadjacent companies have long marketed and profited from platforms and communication features that are easy for malicious actors to exploit without first equipping their platforms with robust content moderation mechanisms. Eradicating all extremist content from gaming and gaming-adjacent spaces would be impossible, given the number of users. Moreover, extremists tend to be skilled at skirting rules and finding new online environments for their networking and mobilization.<sup>141</sup> However, many large and profitable gaming and gaming-adjacent companies have delayed in taking adequate steps to prevent bad actors from misusing their sites and causing harm.

Instead, they have long marketed and profited from platforms and communication features that are easy for malicious actors to exploit without first equipping their platforms with robust content moderation mechanisms.

A spokesperson for the Entertainment Software Association, a trade association that represents many of the largest video game companies, stated: "We strive to create fun and engaging experiences for all players and go to great lengths to ensure that our player communities can be enjoyed in a healthy, safe, and inclusive environment. We do not tolerate actions by bad actors seeking to use our games as a platform to propagate inappropriate messages." She added that the industry is "continually evaluating and improving our processes and policies."

Yet to date, game companies have generally lagged behind even gamingadjacent platforms in terms of adopting robust policies and enforcement systems that match the severity of the harms their platforms can enable. Their community standards are often vague, incomplete, and inaccessible; the effective implementation of those standards is even more suspect as almost all companies refuse to disclose details about their enforcement actions and outcomes. By comparison, two of the major gaming-adjacent platforms, Twitch and Discord, have put in place fairly specific policies addressing extremism and made efforts to disclose information about their enforcement actions in periodic transparency reports. Still, their enforcement metrics contain important omissions.

#### Playing catch-up

Stemming extremist content and behavior in gaming spaces begins with setting out rules that specifically prohibit the types of harassment and promotion of hostility that flow from extremist ideologies. To be effective, these rules must be clear and accessible. Yet in an empirical study analyzing 60 of the most popular online multiplayer games, a group of professors at UC Irvine found that games' codes of conduct are often vague, inaccessible, or simply nonexistent. More than half of the games examined did not even have a standalone code of conduct available on the game's website, and only eight games had codes of conduct that were accessible directly from the game's homepage.<sup>142</sup> By hiding their codes of conduct in obscure places, game companies convey to players that the rules are not a priority.

Many games lack rules explicitly prohibiting all forms of extremist content and behavior. Some games allude to specific behaviors, such as doxing and swatting, as "unacceptable" but leave other terms, like "hateful" or "harassment," wide open to interpretation.143 Among the major game companies surveyed in this report, Roblox is the only one with an explicit and sufficiently clear anti-extremism policy.144 The only other company that mentions extremism in its policies is Microsoft, but it does so in passing in an otherwise dense services agreement.<sup>145</sup> The remaining companies proscribe extremism to the extent that it overlaps with hate speech, discriminatory language, bullying, and threats.<sup>146</sup> These behaviors often flow from extremist beliefs, but they do not cover the full range of extremist behavior on gaming platforms.

Even the most carefully crafted rules would be of limited value without robust monitoring and enforcement. But many companies have been relatively slow to adopt policies, trust and safety teams, and technologies that can keep pace with the rate of in-game communication and content creation. A handful of companies have incorporated automated text-chat filtering to protect players from seeing slurs and other offensive language. Microsoft made a significant investment in proactive text-filtering technology by acquiring Two Hat, an Al-powered content moderation service, in 2021.147 Some companies, like Roblox, permanently enable such filters for all players, whereas others, like Activision Blizzard, allow players to turn off or customize filters to suit their preferences, ranging from "friendly" to "mature."<sup>148</sup> Epic Games takes a different approach, focused on implementing accountlevel protections and requiring parental consent to enable and adjust certain features, such as in-game chats, for its youngest users.<sup>149</sup> The company believes few children are incentivized to lie about their age to circumvent such protections.<sup>150</sup>

Even if text filtering is assumed to work flawlessly-which is a big assumption-it only covers a fraction of user-created content in games. While struggling to moderate text chats, many game companies decided to introduce live voice chats without having the technical and human capacity to moderate those audio conversations. After years of ignoring hate-based harassment through in-game voice chats, some companies have started to adopt a different posture. Riot Games, facing public backlash for the high rates of toxicity observed in its games, has deliberately restricted audio communications for League of Legends.<sup>151</sup> In 2022, the company announced that it would begin recording in-game voice chat for its other popular game, Valorant, to allow for after-the-fact analysis of disruptive behavior.<sup>152</sup> In September of 2022, Activision Blizzard announced that it would start saving voice chats in the game Overwatch 2 for a limited period "to investigate and verify reports of user behavior."153 The company's terms of service and user agreement now state that it may monitor and/or record player communications, including text or voice chats.154 PlayStation's terms of service agreement also notes that the company reserves the right to record communications for the purpose of investigating violations of their code of conduct.155

In all of these cases, companies have clarified that they do not proactively monitor any voice communications and instead may examine specific excerpts upon receiving user reports.<sup>156</sup>

Reactive moderation in response to user reports comprises an important component of the overall content moderation toolkit.<sup>157</sup> But relying on user reports for all or most of content moderation is problematic given that many users are unable or unwilling to report troubling incidents.<sup>158</sup> In NYU's multi-national survey, only 38% of respondents who had experienced some form of severe harassment while playing online multiplayer games in the last year said they had reported the incident to the respective game publisher or developer. Some of the reasons cited for not reporting included lack of knowledge about how to do so and previous lack of follow up from the company. Most game companies are tight-lipped about how guickly they review such reports and whether their chosen enforcement measures are actually effective at curbing future abuses. Unless the company deploys ban-evasion tools, many offending users are able to circumvent temporary or even permanent suspensions.

Such loopholes and delays in reactive moderation make proactive detection a crucial aspect of responsible platform moderation. Roblox and Epic Games affirm that they conduct a safety review of every user-created item and experience before it becomes publicly available.<sup>159</sup> That is, each item uploaded by a user goes through a layer of machine detection followed by human review before it can be displayed on the site. Microsoft's proactive moderation in Minecraft, meanwhile, centers on its automated text-chat filtering system, which it uses "to classify, filter, and escalate online harms for human review and moderation."160 These chat filters are also applied to Minecraft's

Java Realms, which consist of private servers run and moderated largely by users. As of June 2022, participants in these private servers can choose to report violations to the central *Minecraft* team for review and further action,<sup>161</sup> but the company allegedly stated that "this effort would only focus on what players report and exclude any proactive monitoring or moderation" beyond automated text chat filtering.<sup>162</sup>

Recently, some companies have announced upgrades to their reporting and proactive detection systems, which they claim have drastically reduced disruptive behavior and repeat offenses.<sup>163</sup> Unfortunately, external validation of such improvements is made impossible by game companies' general lack of transparency. The vast majority of companies provide no details of the number of players who report abuse, the nature of the abuse, how quickly those reports lead to company action, and what actions are taken in each instance. Only two major video game entities-Microsoft's Xbox and Wildlife Studios-have disclosed any relevant data.<sup>164</sup> Xbox's first transparency report came out in 2022, but it still lacks data on its detection of violent extremist material and speed of enforcement when such material is detected.<sup>165</sup> And, with the exception of a new collaboration between Activision Blizzard and the California Institute of Technology,<sup>166</sup> major game companies have been loath to share data with independent anti-extremism researchers who can shed light on the nature and prevalence of extremist behavior in games.167

#### Progress, but not enough

Unlike most game companies, adjacent apps Twitch and Discord have established specific policies prohibiting extremist material and endeavored to disclose some information about their implementation of those rules. Other key players like Steam, the popular PC game distribution site, have yet to do so. Steam relies on sparse community guidelines and has no apparent enforcement mechanisms.

Twitch's community guidelines, which are easily accessible from the site's homepage, clearly outline prohibitions on violence, threats, terrorism, and violent extremism, with examples that illustrate the company's interpretation of each category.<sup>168</sup> In April 2021, Twitch announced its "off-services conduct" policy, according to which the platform would suspend accounts run by individuals who engaged in terrorist activities or recruiting, participated in a known hate group, or issued credible threats of mass violence, even if that behavior happened outside of Twitch.<sup>169</sup> Subsequently, Twitch began acting more decisively as it identified and expelled offenders. However, given the sheer volume of ephemeral content that airs on the platform, some violating content inevitably slips through. As Twitch staff put it in an interview, with two-and-a-half million hours of live content created every day, even sustained efforts by automated systems and human moderators are not foolproof.

Twitch's transparency report covering the first half of 2022 states that the company took unspecified action against 182,655 instances of hateful conduct, sexual harassment, and harassment. The majority of those instances appear to have been brought to the company's attention by user reports.<sup>170</sup> The company took down 171 pieces of content displaying "terrorism, terrorist propaganda and recruitment." Twitch notes that it generally receives low numbers of reports for terrorism and violent extremism on their service.

Like Twitch, Discord's community guidelines exhort users not to engage in harassment, hate speech, threats or glorification of violence, doxing, or the

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Many companies have been relatively slow to adopt policies, trust and safety teams, and technologies that can keep pace with the rate of in-game communication and content creation.

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promotion of known violent extremist groups.<sup>171</sup> The company has helpfully elaborated on how it defines and detects violent extremism.<sup>172</sup> Further. in its transparency report for the first guarter of 2022, Discord states that it "dedicates significant resources to proactively removing servers before they're reported to us" and that "these efforts especially target the highest-harm categories on our platform," including violent extremism.<sup>173</sup> According to a Discord spokesperson, the platform's "dedicated Counter-Extremism team works to identify and remove any spaces where users are organizing around violent and hateful ideologies. The team also works to track and deplatform violent and hateful networks that use Discord to disseminate extremist content."

It is unclear, however, to what extent the company scans the contents of private servers, which account for the vast majority of its chatrooms.<sup>174</sup> The ease with which extremist and explicitly hateful content can be found on private servers listed on Disboard belies the seriousness of the company's proactive detection efforts. Moreover, like most game companies, Discord doesn't record live voice or video calls, so any discussion of extremism in oral form is likely to evade the platform's detection entirely. Discord's transparency reports leave several important questions unanswered. First, Discord doesn't explain how it prevents suspended users from simply creating another account from which they can continue posting harmful content. Given the common practice of extremist servers to boast about their resilience to bans,<sup>175</sup> Discord needs to develop better mechanisms to avoid manipulation of the system.

Second, Discord helpfully reveals the number of user reports it received for each category, as well as the percentage of those reports that led to companv enforcement actions, which ranged from 9% for harassment/bullying to 74% for violent extremism in early 2022. However, the company doesn't disclose the average length of time it took Discord to resolve those reports. It makes a big difference whether a server promoting extremist content is removed after two months or a few hours. It also makes a difference whether a piece of extremist content is viewed by ten people as opposed to a million. A significant decrease in exposure to, and engagement with, harmful material would constitute a more meaningful indicator that the company's moderation efforts are succeeding.

Discord's transparency reports also elide the fact that Discord delegates much (or all) of the moderation in private servers — which constitute the majority of servers on the platform-to regular users.<sup>176</sup> These users serving as administrators can set rules on top of Discord's community guidelines and may designate moderators to suspend or ban users unilaterally. Discord has set up an online Moderator Academy with modules ranging from how to facilitate positive environments to dealing with ban evasions.<sup>177</sup> Aspiring moderators have to pass a one-hour test.<sup>178</sup> It is not clear whether Discord then proactively oversees volunteer moderators to ensure compliance with the company's policies.

In sum, the gaming industry has made it relatively easy for bad actors to spread extremist propaganda and cause real-world harm. Companies have set up platform structures and communication functions that are inherently difficult to moderate without first developing robust policies and enforcement mechanisms to address foreseeable harms. Major gaming-adjacent sites are further along in recognizing how their platforms can be misused and have disclosed some information about their enforcement efforts. Nevertheless, the adjacent platforms have room to improve.

### Guardrails on the road to the metaverse

The need to address extremist exploitation of gaming spaces acquires added urgency when considering that the technologies that make games broadly appealing may soon permeate more of our daily lives. The virtual reality universe that Silicon Valley companies promise to deliver in coming years, packaged as the "metaverse," would constitute an extension and expansion of the 3-D immersive cyberspaces that already exist in video games.<sup>179</sup> Roblox worlds already provide persistent virtual spaces where players can interact in real time as they navigate situations of their own creation. *Fortnite* already hosts virtual concerts on its "Party Royale island," featuring global celebrities like Travis Scott and Ariana Grande.<sup>180</sup> The success of such virtual reality ventures has tantalized technology companies looking to digitalize a greater share of human existence. Meta has already invested \$36 billion in its metaverse venture.<sup>181</sup> A defining aspect of the metaverse is for participants to interact as gamers already do every day on video games-except that their interactions will no longer be "just games."

All of the difficulties that plague content moderation in gaming and gaming-adjacent platforms will be magnified in the metaverse: Individuals will be harassed, threatened, or even virtually gang raped in real time before a content moderator has the chance to intervene. Extremists will hold private virtual gatherings, target susceptible audiences, and spread hateful narratives until it's too late to prevent violence.<sup>182</sup> Some users of Meta's early-stage virtual-reality platform. Horizon Worlds, have already reported being victims of online sexual assault, stalking, and various forms of virtual physical aggression.<sup>183</sup> Rather than allowing these problems to become more severe and pervasive, metaverse companies and investors should act decisively to integrate guardrails into their product designs and decisions.

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# 5. Conclusion and Recommendations

The gaming industry is a cultural and entertainment juggernaut, with global revenue of nearly \$200 billion and more than three billion consumers worldwide. The industry's extraordinary success implies a commensurate responsibility to its users and the broader public. Yet, there is mounting evidence that:

- 1. Extremists are using gaming and gaming-adjacent sites to disseminate radical narratives, network with likeminded individuals, mobilize for action, and broadcast their violence.
- 2. These radical narratives are having grave real-world consequences. In NYU's multinational survey, 51% of all gamers surveyed had come across extremist statements or narratives, and 36% had experienced acute harassment while playing online multiplayer games in the last year. In the most extreme instances, individuals radicalized in gaming sites have committed horrific acts of mass violence, including recent shootings in Buffalo, New York, and Highland Park, Illinois.
- 3. Some aspects of gaming spaces that make them attractive to extremists, such as their networking and community-building functions, carry intrinsic value for gamers and cannot simply be dismantled. But extremists' abuse of gaming platforms is neither inevitable nor coincidental.
- 4. Most game companies are still behind social media platforms in terms of their content moderation approach and capacity. The most popular gaming-adjacent platforms, Twitch and Discord, have comparatively better anti-extremism policies and practices, but they still have significant room to improve. Discord, in particular, continues to host easily detectable, explicitly violent chatrooms among its private servers, despite the company's pledge to stop the proliferation of violent extremism on its platform.<sup>184</sup>
- 5. The ease with which bad actors can exploit gaming spaces reflects the industry's general reluctance to exercise adequate oversight of their users' behavior—a stance that is increasingly untenable.
- 6. As technology companies and investors turn to developing the metaverse, a more responsible industry-wide approach to addressing violence and extremism is more important than ever.

### **1** Develop and make public clear, comprehensive, and easily understood standards for what is prohibited on the game or platform.

Studies on online forums have shown that persistently disclosing a community's rules leads to greater voluntary compliance.<sup>185</sup> Yet many game companies' codes of conduct and community guidelines are contained in lengthy and obscure documents that very few users are inclined to read.<sup>186</sup> Moreover, many policies on extremist behavior and content are vague and under-inclusive. By increasing the accessibility and clarity of codes of conduct and community guidelines, companies can contribute to the reduction of harmful content and behavior.<sup>187</sup>

Rules are central to all games. Game companies can apply their creativity to finding engaging ways to remind players of the rules.<sup>188</sup> Some publishers have already experimented with innovative strategies, such as incorporating codes of conduct into the onboarding process of a game and using in-game idioms, characters, and graphics to make the rules engaging. Riot Games' *League of Legends*, for instance, summarizes its main rules in "The Summoner's Code" presented at the beginning of the game, using attractive graphics to make the policies more user-friendly.<sup>189</sup>

### 2 Improve enforcement mechanisms to apply content standards promptly and reliably.

Better presentation of rules alone will not eliminate extremist exploitation of gaming platforms. The gaming industry ought to revamp its systems for detecting prohibited content and implementing enforcement measures. Such systems should involve a combination of reactive and proactive content moderation. Reactive moderation—the process of reviewing user-flagged content—is effective to the extent that companies review reports in a timely manner and take reliable enforcement actions backed by clear explanations.<sup>190</sup> The low rates of user reporting in many games, combined with evidence of high rates of harassment, indicate that many users don't avail themselves of existing reporting mechanisms. Companies should investigate the reasons for such low rates of reporting and improve their moderation capacity. Companies can leverage the power of tools, such as the AI-powered moderation platform Good Game Well Played, to help them scale up their reactive moderation. However, some issues can only be adequately managed by human reviewers, and companies should ensure that they have enough in-house staff to answer user reports promptly and reliably.

Game and gaming-adjacent companies should also increase their investment in proactive moderation, including both automated detection systems and human investigators using state-of-the-art tools like large, multilingual pre-trained datasets of extremist vocabulary. The Global Internet Forum to Counter Terrorism compiles and maintains a database of hashes (digital fingerprints) of extremist content to help industry partners scan their services for matching content and take action accordingly.<sup>191</sup> Companies should make use of this tool and engage in other multi-stakeholder efforts to develop proactive detection for extremist content. Proactive enforcement is admittedly challenging in gaming and live-streaming platforms, where interaction and communication are instant and ephemeral. Still, the industry should increase its investment in proactive moderation technology that operates in real time or close to real time.<sup>192</sup>

#### **3** Adopt safety measures from the early stages of design and development.

Developers play a crucial role in deciding how to structure player interaction and which conduct to reward. The emerging field of "player dynamics" offers strategies for incentivizing prosocial behavior in games. Riot Games' *League* has implemented a system in which players are rewarded for sportsmanship and virtuous play with honor points and in-game goods.<sup>193</sup> According to Weszt Hart, the head of player dynamics at Riot Games, the company is trying to shift from a reactive to a proactive approach when it comes to addressing negative behavior. "Companies are intimidated by what they think is expensive," he noted in an interview, "but it's actually very good for business to design for digital thriving and healthy communities."

As a general matter, technologies that may enable abuse should not get ahead of technologies needed to curb foreseeable harms. The industry should consult with gamers, especially gamers who are traditionally targeted for abuse, to ensure that their experiences and perspectives on safety measures are considered.

Finally, to play a truly constructive role, companies should do more than simply eliminate content or ban users. It may be that such purely punitive actions, which currently constitute the majority of enforcement measures, are not the most effective ways to address extremist tendencies. Extremism experts have proposed a range of constructive interventions—such as encouraging gaming celebrities and popular streamers to engage in counter-speech, and developing games with prosocial messages—that may contribute to more sustainable long-term results.<sup>194</sup> Corporate trust and safety teams should consider hiring some of those experts.

### 4 Provide independent researchers access to anonymized in-game communication data.

Industry assurances that players are rarely exposed to extremism in their games will remain questionable unless they provide independent researchers access to in-game communication data corroborating this assertion. Large-scale empirical studies are needed to understand the nature and magnitude of extremism in gaming sites. Until the gaming industry exposes its claims to external scrutiny, policymakers and other observers will have to rely on anecdotal evidence to assess the industry's self-regulation efforts.

Access to data need not violate user privacy. Data can be aggregated, anonymized, and appropriately redacted such that researchers would not be able to identify particular users. Moreover, companies can adjust their terms of service—as some already have—to inform users that their data may be subject to external analysis without compromising their privacy. Such researcher access would not be without precedent. In fact, several national and regional governments have already begun drafting and enacting legislation that mandates such access to social media company data.<sup>195</sup> The gaming industry can preempt similar regulation by voluntarily sharing its data with external researchers.

### Commit to robust industrywide standards on combatting extremism by joining and strengthening existing industry coalitions.

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Companies' efforts to address extremism on gaming sites will be more effective if they act collectively. Extremist actors tend to be nimble and platform agnostic. They migrate to sites that turn a blind eye to violence and abuse. To close loopholes and level the playing field among industry players, game companies should agree on a common set of standards for identifying, analyzing, and mitigating extremist exploitation of their sites. Further, to ensure those standards are upheld, companies should subject themselves to independent civil society oversight, such as by an adequately constituted multi-stakeholder body.

Two existing industry associations can provide the foundation for more effective cooperation. The Global Internet Forum to Counter Terrorism (GIFCT) is an industry-led initiative that fosters technical collaboration among its member companies, advances research, and shares knowledge with smaller platforms. Currently, only four out of 22 members of GIFCT are game or gaming-adjacent companies. By comparison, the Fair Play Alliance (FPA), another industry coalition that focuses on developing best practices in safety-by-design, represents over 200 game companies. The FPA is a knowledge-sharing forum and does not set forth industry standards.

Both of these organizations can enhance their impact by building on each other. To increase GIFCT's effectiveness, more game companies—including many FPA members, such as Blizzard Entertainment, Roblox, and Epic Games—need to join the collective effort to counter extremism. At the same time, to enhance its credibility as a multi-stakeholder initiative, GIFCT should set a higher bar for companies. It should develop its existing membership criteria<sup>196</sup>—which are rather thin and lenient—into robust and detailed standards on what counts as adequate platform rules, enforcement systems, and transparency. GIFCT also should set forth a rigorous system of periodic independent assessments so that member companies can be held publicly accountable to their commitments.

# Appendix

#### Survey of Multiplayer Gamers: Methodology and Results

#### Methodology

The survey of online multiplayer gamers was conducted between January 19-23, 2023, and covered five of the largest video game markets globally: the United States, Germany, South Korea, France, and the United Kingdom. To find a nationally representative panel of respondents in each of the five countries, the NYU Stern Center for Business and Human Rights retained two firms: Newzoo, a video games data analytics company,<sup>197</sup> and Dynata, an international data-collection company.<sup>198</sup> In total, 1,128 people completed the survey. Anonymized raw data with survey responses is available upon request.

#### Demographic breakdown of respondents

Country Age		Gender			
United States of America	237	Under 18	234	Male	597
France	228	18-24	180	Female	524
United Kingdom	221	25-34	276		
South Korea	220	35-44	285	Other/Non-binary	6
Germany	222	45-54+	153	NA	1

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in race, ethnicity, color, religion, gender identity, sexual orientation, ability, national origin, and other groups. Don't demean, marginalize, use hateful language against, or belittle other users or groups.... Interacting with others in a way that is predatory, threatening, intimidating, lewd, demeaning, derogatory, invasive of privacy, or abusive is against the rules."

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