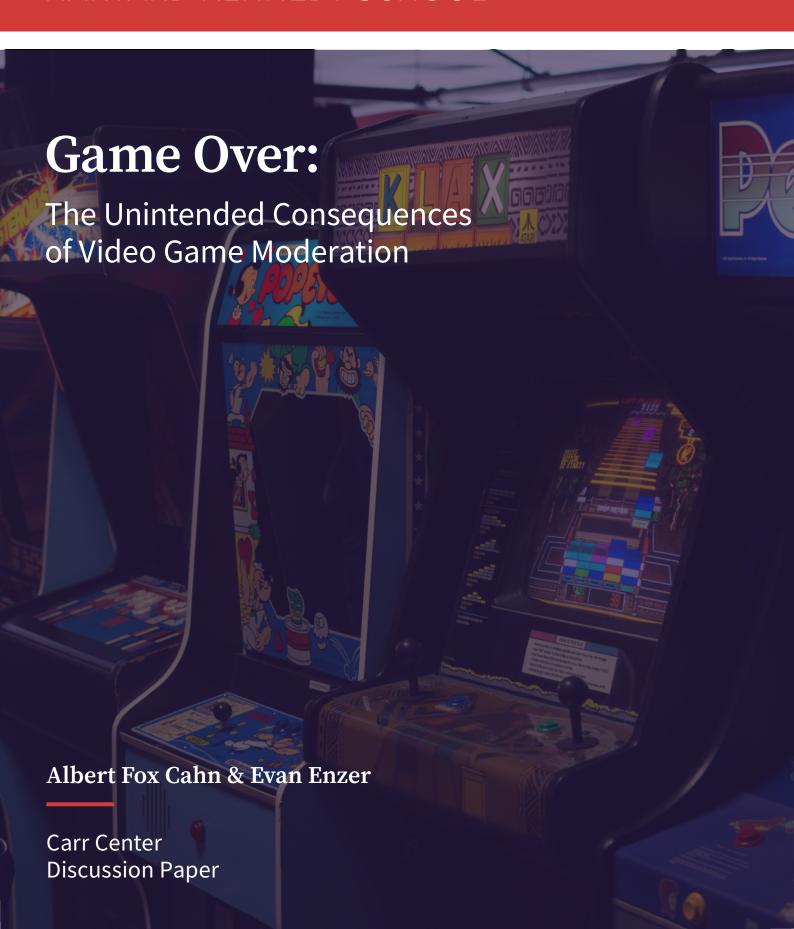


CARR CENTER FOR HUMAN RIGHTS POLICY HARVARD KENNEDY SCHOOL



Game Over:

The Unintended Consequences of Video Game Moderation

Carr Center for Human Rights Policy
Harvard Kennedy School, Harvard University
February 16 | Issue 2024-02

Albert Fox Cahn

Founder and Executive Director, Surveillance Technology Oversight Project;
Technology and Human Rights Fellow, Harvard Kennedy School's Carr
Center for Human Rights Policy; Practitioner-in-Residence, NYU Law School's
Information Law Institute; Fellow, Yale Law School's Information Society
Project; Fellow, Ashoka; Fellow, TED.

Evan Enzer

Program Associate, Surveillance Technology Oversight Project; Internet Law and Policy Foundry Fellow.

The views expressed in the Carr Center Discussion Paper Series are those of the author(s) and do not necessarily reflect those of the John F. Kennedy School of Government or of Harvard University. Faculty Research Working Papers have not undergone formal review and approval. Such papers are included in this series to elicit feedback and to encourage debate on important public policy challenges. Copyright belongs to the author(s). These papers may be downloaded for personal use only.



ABSTRACT

Online video games are social networks, afflicted with the same speech moderation questions as other social media platforms, like Meta and Twitter, including rampant abuse, harassment, and misinformation. Without effective self-regulation, the United States and other countries have sought to regulate gaming's messages, content, and user experience. However, video games are not passive media players consume. They are an interactive medium steered by users' participation and speech. Video games are much more like interactive worlds, like virtual reality platforms, seeking to bring work, parties, dating, play, and everyday life online. If governments choose to regulate video games, they must balance legitimate content moderation needs with the rights of Free Speech, Free Expression, and Free Association. Governments should enact legislation that empowers users' freedom, like strong privacy and anti-government surveillance laws, instead of restrictive laws to prohibit categories of speech in video games.

I. Introduction

When Traci and Dave Gagnon tied the knot in 2021, their ceremony was rendered one pixel at a time. Their digital replicas said "I do" surrounded by the avatars of friends and family, their special day enacted in parallel, both online and off.¹ The virtual wedding garnered national headlines, but it should have come as no surprise. From religious ceremonies, to political protests, to education and work, video game platforms are increasingly central to how we live much of our digital lives.

Not only are gaming platforms increasingly the native digital environment for younger users who have migrated away from legacy social media platforms, but gaming platforms themselves are evolving. While speculative marketing labels like "the Metaverse" are years away from ever evolving into real platforms, multibillion dollar investments in augmented reality and virtual reality are poised to expand gaming into increasing parts of our lives.

Video games aren't merely a toy anymore. Instead, they represent one of the fastest growing segments of the global internet ecosystem, garnering rapidly expanding user engagement and investment. Yet, as video game platforms have evolved from the standalone cabinets and consoles of the late-20th century into a vibrant and interconnected social network, gaming has been plagued by many of the same speech moderation questions that have confronted Meta, Twitter, TikTok, and other social media platforms. Video game platforms aren't just a place to shoot

Avatars of Traci & Dave Gagnon. Image credit Traci Gagnon.

virtual enemies and fly simulated spaceships; they are also a place for users to engage in a wide array of political, religious, and other constitutionally protected activities.

Gaming platforms' evolution highlights the challenges of harmonizing the need to create safe, welcoming digital spaces for a broad cross section of users, particularly minors and users from historically marginalized communities, while also creating an environment that protects free speech rights. As a technical matter, gaming moderation has historically been almost identical to content moderation on traditional social media and web-based platforms, but many of the industry norms, regulatory expectations, and legal requirements for gaming have diverged from other aspects of the internet.

Users, parents, and the broader public have often expected game developers to create largely sanitized speech environments, stripped of objectionable material. But many adult gamers have pushed back against the limitations of such censorship, and the widespread failure to extend speech protections to gaming environments is increasingly unsustainable.

As virtual and augmented reality gaming platforms are used for work, civic engagement, religious practices, and political campaigns, we will need to urgently reassess the speech norms for such systems. The social cost of mis-moderation and discriminatory speech suppression will shift, dramatically increasing the stakes of how platforms set the guardrails for permissible user content. But where U.S.-based commentators may be inclined to respond with the dogmatic First Amendment-style commitment to unfettered free expression that

has so often defined the American content moderation debate, such an approach is particularly inapt for gaming. Not only does the high rate of child gamers increase the adverse impact of truly unfettered content creation, but gaming has a particularly potent history of misogynistic, homophobic, transphobic, and racist user behavior. Such experiences suggest that a hands-off approach to content moderation would be likely to only fuel further abuse, creating potentially insurmountable barriers to platform engagement by anyone who isn't a white cis-gendered male gamer.²

This might already seem like an intractable quandary, but the situation is even worse. Platforms are seeking to decide content moderation policies at a moment of intense regulatory scrutiny across the globe. From sweeping new continent-wide proposals in the European Union, to state-specific laws in the United States, and broad restrictions in numerous Asian nations, gaming has caught the attention of lawmakers and regulators around the world. Gaming firms must comply with an increasingly complex and balkanized compliance landscape while also aiming to demonstrate sufficient

¹ Steven Kurutz, "Getting Married in the Metaverse," *New York Times*, December 8, 2021, https://www.nytimes.com/2021/12/08/fashion/metaverse-virtual-wedding.html.

² Three quarters of women-identified gamers experience gender-based harassment; 44% of Black gamers, 40% of Asian American gamers, 37% of LGBTQ+ gamers, and about 30% of Jewish, Muslim and Latino gamers have experienced identity-based harassment. Anti-Defamation League, *Hate Is No Game: Hate and Harassment in Online Games 2022* (Anti-Defamation League, December 2022), https://www.adl.org/resources/report/hate-no-game-hate-and-harassment-online-games-2022

commitment to content regulation to fend off even further laws. The result is a boss battle that gaming firms may not have the hit points to survive.

Much of video game regulation today is built on a fundamental misunderstanding of the medium. Video games are rated and gated like movies or TV shows, treated as content to be consumed passively by viewers who need to be protected from age-inappropriate content. But games are interactive by definition, and multiplayer games are axiomatically social in nature. Looking at the graphics and dialogue programmed into a gaming title, without taking seriously the human connections built in gameplay chats and forums misses the core of what many games are.

"Game regulation is far more than a speech moderation question: instead, it requires thinking through every other aspect of how we govern essential digital infrastructure."

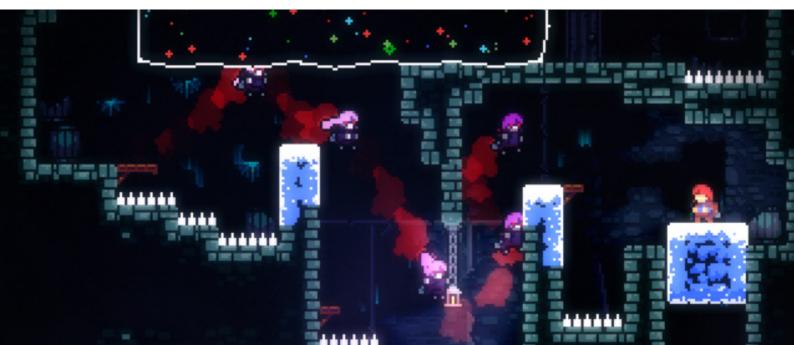
As if the content moderation quandary wasn't hard enough on its own, gaming platforms have already shown that they raise questions about huge numbers of human and civil rights concerns that go beyond speech. As we'll show, gaming platforms have already been used for religious and political engagement. But there are also looming impacts on reproductive freedom, LGBTQ equality, workers' rights, property rights, and much more. And as with the other tech platforms we increasingly depend on, there is also the question of how to properly adjudicate the disputes that do come up with users. Can we continue to

treat these technologies as software governed by terms of service, or do these systems become so essential to modern life that we begin to legislate the terms by which they can be operated and accessed? That question is perhaps the most important of all, shaping whether we design a future centered on consolidated corporate control or one where human and civil rights evolve to meet and protect us wherever we live our lives, online or off.

Game regulation is far more than a speech moderation question: instead, it requires thinking through every other aspect of how we govern essential digital infrastructure. Online game stores raise many of the same antitrust and competition concerns long highlighted in Apple and Android app stores. The billions poured into game development raise the same workers' rights and labor questions highlighted throughout the tech industry. And disputes between users and platforms highlight rule of law questions that go to the core of how we regulate platforms of the future, whether users are little more than signatories to terms of service that allocate what few rights companies wish to give them in online environments, or if human and civil rights will gain new ground in digital spaces.

The video game governance debate also parallels much of the discourse surrounding the growth of Web3 technologies, such as cryptocurrencies, other blockchain-based software, non-fungible tokens (NFTs), and decentralized autonomous organizations (DAOs). From virtual currency creation to intellectual property monetization and governance solutions, video games have already enabled many of the use cases highlighted for Web3 technology. Video games provide a radically centralized alternative design path to the self-described decentralization of Web3. Despite gaming's epic scale, it often receives a small fraction of the public engagement with, or scrutiny of, Web3, likely because it doesn't enable the same sort of speculation as cryptocurrency investments.

Screengrab of the video game Celeste. Image credit: Maddy Makes Games



II. Evolution of Gaming

It's hard to understand the civil society impact of gaming today unless we recognize how far it has come from the more primitive gaming systems lawmakers and regulators often envision. By some measurements, the history of computer and video games stretches back more than 80 years to the 1939 World's Fair. Visitors to New York's interwar *Experimental* Prototype Community of Tomorrow had the chance to match wits against Nimatron, a hulking, boxy opponent that could play the math game Nim on a primitive display of 28 lights.3 It wasn't until 1972 that Pong, the first mainstream cabinet game, was commercially released to arcades⁴ and The Magnavox Odyssey brought gaming to home televisions. 5 Two decades later, gaming began its transformation from a solitary pursuit into an interconnected one when Neverwinter Nights introduced the concept of online, graphics-based gaming.6 Though crude by today's standards, the game grew to gain more than 150,000 users on AOL, developing social networks such as guilds and leagues. Users remained so committed to the game that their protests gained national news coverage when AOL suspended the service in 1997.7 Even in these early days, gamers began to grow beyond the four walls of the game, engaging in community building and collective action.

When early graphical games like Neverwinter Nights were pulled from the market, it was to make way for new titles with increasingly sophisticated graphics, connectivity, and mobile engagement. More advanced computer processors and graphics processors allowed for the creation of openworld environments, such as in Grand Theft Auto III (GTA III). GTA III, released in 2001, gave users the ability to freely navigate a rich, immersive virtual city, moving beyond the confines of traditional, linear storytelling.⁸ Instead of simply prompting users to respond to a predetermined set of decision prompts, GTA III gave users the illusion of self-determination, albeit within the confines of a finite set of missions, bot behaviors, and environments. GTA III's world may have seemed endless to players, but it was an isolated one,



Nimatron at the 1939 World's Fair. Image credit: Westinghouse Electric Co.

with each user playing on a local console or computer. That changed with the development of Massively Multiplayer Online Roleplaying Games (MMORPGs).

The first massively multiplayer game was far from a roleplaying game. Instead, Second Life sought to create exactly what its name suggested, a second version of our world, centered around the routines and structures of real-world lives. Users could build structures to live and work in, customize and clothe their avatars, and even engage in the defining feature

³ Betsy Golden Kellem, "The Nimatron," *JSTOR Daily*, March 1, 2022, https://daily.jstor.org/the-nimatron/.

⁴ Chris Stokel-Walker, "Atari Teenage Riot: The Inside Story of Pong and the Video Game Industry's Big Bang," *BuzzFeed*, November 29, 2012, https://www.buzzfeed.com/chrisstokelwalker/atari-teenage-riot-the-inside-story-of-pong-and-t.

⁵ Benj Edwards, "Inside the Magnavox Odyssey, the First Video Game Console," *PCWorld*, May 27, 2012, https://www.pcworld.com/article/464739/inside_the_magnavox_odyssey_the_first_video_game_console.html.

⁶ Computer Science Department, "OMG it's an MMOG," *Stanford University*, accessed May 22, 2023, https://cs.stanford.edu/people/eroberts/cs201/projects/2006-07/multiplayer-online-games/Page352.html.

⁷ Janelle Brown, "Gamers Claim AOL Is Playing Bait-and-Switch," *WIRED*, June 24, 1997, https://web.archive.org/web/20121025232003/http://www.wired.com/culture/lifestyle/news/1997/06/4625.

⁸ Jeremy Gordon, "After 'Grand Theft Auto III,' Open-World Games Were Never (and Always) the Same," *The Ringer*, October 22, 2021, https://www.theringer.com/2021/10/22/22737333/grand-theft-auto-gta-rockstar-open-world-assassins-creed.

"Video games are rated and gated like movies or TV shows, treated as content to be consumed passively by viewers who need to be protected from ageinappropriate content. But games are interactive by definition, and multiplayer games are axiomatically social in nature. Looking at the graphics and dialogue programmed into a gaming title, without taking seriously the human connections built in gameplay chats and forums misses the core of what many games are."

Albert Fox Cahn, Technology & Human Rights Fellow





Justin Mirsky outside his town hall with Alexandria Ocasio-Cortez. Image credit: Justin Mirsky

Screengrab of the virtual embassy of the Maldives in Second Life

of American life: capitalism.⁹ More specifically, Second Life was centered on what anthropologist Tom Beollstorff first described as "creationist capitalism," an economic system that reframes labor in terms of creativity and intellectual property. Second Life not only allowed players to create and monetize virtual constructs in a wholly simulated environment, it also allowed users to convert game currency "Linden Dollars" for fiat currency.¹⁰

Years prior to the development of blockchain currencies like Bitcoin, Second Life demonstrated many of the powers and limitations that cryptocurrencies would later bring onto the global stage. And much like with cryptocurrencies, litigation and disputes quickly followed, with users suing developer Linden Labs over everything from the price paid for virtual real estate to the property rights held in virtual possessions. In a pattern that would be oft-repeated in the gaming space, courts looked at these disputes not through the lens of human rights or civil rights, but through the cribbed perspective of contract law. To judges, these were not virtual worlds to be governed in accordance with the broader principles of justice we seek in real spaces, but simply another piece of software to be used pursuant to its terms of service.

But while the virtual economy of Second Life often gained the greatest attention, it was far from the only notable development from a human and civil rights perspective. The near-limitless capacity for users to build, create, and interact allowed for everything from virtual schools and virtual embassies to political activity and even religious services. ¹³ Second Life allowed users to engage widely amongst themselves, self-organizing both a digital public square and online private lives. In 2007, leading French candidates for president not only campaigned on Second Life but built virtual campaign offices and held rallies. ¹⁴ When Democratic presidential hopeful John Edwards launched his virtual campaign, he may not have been successful in garnering votes, but he was able to inspire one of the earliest acts of campaign vandalism on a game platform. ¹⁵

In more recent years, politicians have replicated these efforts on countless other platforms. President Barak Obama didn't directly campaign within gaming environments, but his campaign heavily invested in in-game advertisements. ¹⁶ Both President Joe Biden and Representative Alexandria Ocasio-Cortez invested in virtual campaign operations on the popular game Animal Crossing, with the Biden campaign creating simulat-

⁹ Tom Boellstorff, Coming of Age in Second Life: An Anthropologist Explores the Virtually Human (Princeton, NJ: Princeton University Press, 2008).

¹⁰ Grace Wong, "How Real Money Works in Second Life," CNN, December 8, 2006, https://money.cnn.com/2006/12/08/technology/sl_lindex/index.htm.

¹¹ Bragg v. Linden Research, Inc., 487 F. Supp. 2d 593 (E.D. Pa. 2007).

¹² Bragg v. Linden Research, Inc., 487 F. Supp. 2d 593 (E.D. Pa. 2007).

¹³ "Maldives Opens First Virtual Embassy on Second Life," *Sydney Morning Herald*, May 23, 2007, https://www.smh.com.au/national/maldives-opens-first-virtual-embassy-on-second-life-20070523-gdq7im.html.

¹⁴ Sudip Kar-Gupta, "Surreal Campaigns as French Politics Go Virtual," *Reuters*, March 26, 2007, https://www.reuters.com/article/us-france-election-secondlife-idUSL1529155220070326.

¹⁵ Chris Kohler, "John Edwards' Second Life Vandalized," Wired, March 1, 2007, https://www.wired.com/2007/03/john-edwards-se/.

¹⁶ Kristina Reymann-Schneider, "How Video Games Are Used for Political Purposes," *Deutsche Welle (DW)*, October 19, 2020, https://www.dw.com/en/how-politicians-use-video-games-for-their-own-gains/a-55286753.

ed poll booths and a replica campaign headquarters.¹⁷ And when Representative Ocasio-Cortez played video games on the streaming platform Twitch, 400,000 concurrent viewers made her one of the most watched streams in history.¹⁸

These same games have also been the site for numerous political campaigns outside of electoral politics. Animal Crossing was the site of virtual Black Lives Matter vigils, featuring portraits of George Floyd, Breonna Taylor, and other victims of police violence. And just last year, players were able to turn to the popular game Fortnite to circumvent Qatar's anti-LGBTQ+ censorship laws at the World Cup. In more recent days, when highly classified documents about the Russian invasion of Ukraine were leaked to the public, they weren't posted to the dark web or delivered to the New York Times, but posted to the gaming chat platform Discord. In many First Class Jack Douglas Teixeira uploaded information that could change the course of the war and impact millions of lives to servers with names like "Thug Shaker Central," "WowMao," and "Minecraft Earth Map."

While Second Life may have been the first game to show-case these legal and ethical issues, it was far from the most successful. The game peaked with 1.1 million active users in

2007,²² and while it remains in use to this day, it has never seen that sort of success in the years since. In contrast, more recent games routinely attract tens, even hundreds of millions of users.²³ And development costs for individual titles can now reach into the hundreds of millions as well.²⁴

But these costs pale in comparison with the scale of investment in creating new augmented and virtual reality platforms to expand gaming into ever more parts of our lives. One of the largest game firms, Epic, raised a billion dollars in a single round of funding for its metaverse expansion in 2021.25 But that same year Facebook committed to spending ten times as much on its own metaverse play. 26 These same factors helped to drive the astronomical valuation of Activision when Microsoft paid \$68.7 billion for the gaming behemoth.²⁷ In total, investors devoted more than \$57 billion to metaverse growth in 2021, and more than \$120 billion in 2022.28 Even by the inflated valuations of the pandemic-era tech sector, these sums are enormous, demonstrating a sector-wide commitment to expand gaming beyond its traditional confines. For civil society and regulators, this must be a wakeup call, not merely to take gaming platforms seriously today, but to recognize that they are forming the core infrastructure of the internet of tomorrow.

¹⁷ Makena Kelly, "The Official Biden HQ in Animal Crossing Has Poll Booths, Ice Cream, and No Malarkey," *The Verge*, October 16, 2020, https://www.theverge.com/2020/10/16/21519505/joe-biden-animal-crossing-new-horizons-biden-hq-campaign-election.

¹⁸ Allegra Frank, "AOC Met More than 400,000 Young Potential Voters on Twitch," *Vox*, October 22, 2020, https://www.vox.com/2020/10/22/21526625/aoc-twitch-stream-among-us-most-popular-twitch-streams-ever.

¹⁹ Kristina Reymann-Schneider, "How Video Games Are Used for Political Purposes," *Deutsche Welle (DW)*, October 19, 2020, https://www.dw.com/en/how-politicians-use-video-games-for-their-own-gains/a-55286753.

²⁰ Erielle Sudario, "Fortnite's World Cup Fans Have Found an Interesting Workaround to Qatar's Strict Anti-LGBTQ Laws," *We Got This Covered* (blog), November 22, 2022, https://wegotthiscovered.com/gaming/let-them-know-fans-players-and-journalists-banned-from-lgbtq-representation-in-qatar-a-fortnight-workaround/.

²¹ Elias Groll, "The Discord Servers at the Center of a Massive US Intelligence Leak," *CyberScoop* (blog), April 10, 2023, https://cyberscoop.com/discord-intelligence-leak-ukraine/.

²² Samuel Axon, "Returning to Second Life," Ars Technica, October 23, 2017, https://arstechnica.com/gaming/2017/10/returning-to-second-life/.

²³ Jordan Sirani, "The 10 Best-Selling Video Games of All Time," *IGN*, May 9, 2023, https://www.ign.com/articles/best-selling-video-games-of-all-time-grand-theft-auto-minecraft-tetris.

²⁴ Tom Bowen, "The 12 Most Expensive Games Ever Made & How Much it Cost to Make Them," *Game Rant*, May 23, 2021, https://gamerant.com/most-expensive-games-ever-made-total-cost/.

²⁵ Dean Takahashi, "Epic Games Raises \$1B for Long-Term Metaverse Plans, with \$200M from Sony," *VentureBeat*, April 13, 2021, https://venturebeat.com/games/epic-games-raises-1-billlion-to-fund-long-term-metaverse-plans/.

²⁶ Alex Heath, "Facebook Is Spending at Least \$10 Billion This Year on its Metaverse Division," *The Verge*, October 25, 2021, https://www.theverge.com/2021/10/25/22745381/facebook-reality-labs-10-billion-metaverse.

²⁷ Dina Bass and Nate Lanxon, "Microsoft Buys Scandal-Tainted Activision in Bet on Metaverse," *Bloomberg*, January 18, 2022, https://www.bloomberg.com/news/articles/2022-01-18/microsoft-to-buy-activision-blizzard-in-69-billion-gaming-deal.

²⁸ "Meet the Metaverse: Creating Real Value in a Virtual World," McKinsey Blog (blog), accessed May 22, 2023, https://www.mckinsey.com/about-us/new-at-mckinsey-blog/meet-the-metaverse-creating-real-value-in-a-virtual-world.

3. Existing Legal Landscape

A. VOLUNTARY RATINGS

Prior to the video game era, American jurisdictions often criminalized various forms of analog gaming. In addition to near-ubiquitous bans on gambling, cities often banned non-gambling devices like pinball machines. In New York, Mayor Fiorella LaGuardia pursued one of the most vehement campaigns in 1942, enacting a pinball ban that lasted nearly a quarter century. But by 1976, even New York was unwilling to maintain such a ban, setting the stage for a largely deferential regulatory environment for the later emergence of video games.

While video games didn't see the same sorts of criminalization campaigns as analog entertainment devices, they did still face significant pressure to conform with voluntary content moderation schemes. Self-regulation regimes in many countries provide guidance on the appropriateness of specific game titles to users of various ages. The United States' Entertainment Software Rating Board (ESRB), Europe's Pan European Game Information (PEGI), and Japan's Computer Entertainment Rating Organization (CERO) all provide voluntary benchmarks and ratings on the age and suitability of games that are coming to the market.

While these ratings may seem familiar to anyone accustomed to Motion Picture Association of America ratings on movies, the implications for gaming are quite different. While TV and movies provide content to be passively consumed, games are both interactive and player-driven. Game users can connect and communicate in ways that more closely resemble social media and the web than TV or movies.

Game suitability ratings have largely escaped scrutiny because they are voluntary in many jurisdictions, but the truth is that for many game developers and users they are voluntary in name only. Not only will many game retailers require developers to obtain a rating for their title prior to sales, but stores increasingly require purchasers to meet the age criteria set by ESRB and PEGI. Even more significant is the integration of such ratings into the requirements promulgated by console manufacturers.

Many firms refuse to allow unrated titles onto their platforms and ecommerce stores, and they additionally implement age-based restrictions into parental controls and device preferences. Notably, these ratings are limited to the content of the games themselves and don't attempt to rate the full range of player-created game elements and communications a user might find interacting with other players of a multiplayer game.³⁰

B. COMPULSORY RATINGS AND CONTENT RESTRICTIONS

In Europe, many of these same factors apply, but domestic legislation in the United Kingdom and European Union member states often imposes compulsory rating measures. In the United Kingdom, those who sell unrated video games, or who sell games to those not meeting specified age requirements, can be prosecuted criminally pursuant to the Video Recordings Act of 2010.³¹ Thirty-five nations use PEGI ratings on at least a voluntary basis, but Cyprus, France, Greece, Israel, Lithuania, and Malta all mandate that companies submit titles to PEGI for registration and/or require retailers to abide by PEGI's age guidance when selling games.³² Despite the apparent focus on protecting minors, game regulations can impact adult players too.

Australia's legal model largely mirrors the United Kingdom's, compelling video game developers to submit titles for review by the Australian Classification Board, which oversees ratings for movies, TV, and video games. The board rates games based on "themes, violence, sex, language, drug use, and nudity," with different ratings depending on the prominence of such content in a game.³³ Not only have such ratings often forced game developers to redesign works for the Australian market, but on at least four occasions, the board refused to rate a title, effectively banning its sale in Australia for gamers of any age.³⁴ Such broadbased censorship raises free expression concerns if applied to any medium, but it is particularly troubling in light of the con-

²⁹ Eric Grundhauser, "Pinball Was Banned in New York Until a Single Miraculous Shot Convinced Lawmakers it Was a Game of Skill," *Slate*, May 29, 2015, https://www.slate.com/blogs/atlas_obscura/2015/05/29/pinball_was_banned_in_new_york_until_a_single_miraculous_shot_convinced.html.

^{30 &}quot;ESRB Ratings Guides, Categories, Content Descriptors," ESRB Ratings, accessed May 22, 2023, https://www.esrb.org/ratings-guide/.

³¹ "New Video Games Classification Rules Come into Operation," *Practical Law*, accessed May 22, 2023, http://uk.practicallaw.thomsonreuters.com/8-520-6723.

³² The PEGI Organisation," *Pegi*, accessed May 22, 2023, https://pegi.info/page/pegi-organisation.

³³ Department of Infrastructure, Transport, Regional Development, Communications, and the Arts, "How a Rating Is Decided," *Australian Government*, accessed July 20, 2023, https://www.classification.gov.au/classification-ratings/how-rating-decided.

³⁴ Brendan Keogh, "Australia Bans Video Games for Things You'd See in Movies. But Gamers Can Access Them Anyway," *The Conversation*, August 22, 2019, http://theconversation.com/australia-bans-video-games-for-things-youd-see-in-movies-but-gamers-can-access-them-anyway-122183.

vergence of gaming and other aspects of digital life. As gaming platforms are used for social media, work, web browsing, and more, gaming regulations are poised to become the default regulatory standard for much of the internet of tomorrow.

Both Germany and Austria impose broad content and view-point-based restrictions on the sale of games, including sales to adults. Both countries prohibit the sale of games that glorify violence, racism, drug use, and Nazism.³⁵ In some cases, game developers have had to redesign games for release in the German language market to comply with these limitations, particularly bans on Nazi imagery.³⁶

Brazilian officials have repeatedly banned video games, targeting those that demonstrate or glorify substantial amounts of violence. In 1998, authorities banned Grand Theft Auto, which, at that time, was one of the best-selling video games on the market.³⁷ Grand Theft Auto's violence had sparked other nations to limit the sale of the game to younger children, but few (if any) other countries

took the step of banning its sale completely. Ten years later, a court again banned the sale of a violent game, this time targeting the game Bully, which simulates the violent conduct of a 15-year-old character.³⁸

It likely comes as no surprise that China engages in widespread censorship of gaming content, mirroring the censorship applied to nearly every other facet of life. In 2008, hundreds of thousands of World of Warcraft users in China began illegally

migrating accounts to Taiwanese servers in response to the lengthy delay of the game's second expansion in China.³⁹ The migration allowed unprecedented levels of interaction and interconnectivity between users in China and Taiwan, at times overcoming historical divides, at other times exacerbating them. Public channels were flooded with hateful, nationalistic, and racist comments about the two countries, leading the game operator to expand its own censorship of user chats.

In addition to banning numerous games, China has enacted broad limitations on gaming by minors. A 2021 law only allows minors to use gaming platforms for three hours most weeks,

for a maximum of one hour each Friday, Saturday, Sunday, and public holiday.⁴⁰ Just last year, China extended its bans on unauthorized games, prohibiting the live streaming of games that were not approved by regulators.⁴¹ South Korea previously enacted time restrictions of its own on gaming, banning children from using video games from midnight to 6:00 AM.⁴² But even after this 2011 law sur-

vived constitutional challenges in the courts, it was eventually repealed by lawmakers who wanted to allow families themselves to make the decisions about gaming.⁴³

C. PROPOSED LEGISLATION

Alarmingly, many jurisdictions are advancing legislation that would double down on the existing censorship regimes for

...broad-based censorship

concerns if applied to any

medium, but it is particularly

convergence of gaming and

other aspects of digital life."

raises free expression

troubling in light of the

³⁵ https://www.bzkj.de/bzkj/general-information-175618.

³⁶ "Germany and Austria to Get Censored Version of Wolfenstein: The New Order for PC," *DualShockers*, May 6, 2014, https://www.dualshockers.com/germany-and-austria-to-get-censored-version-of-wolfenstein-the-new-order-for-pc/.

³⁷ "Brazil Bans Another Violent Video Game," Wired, February 18, 1998, https://www.wired.com/1998/02/brazil-bans-another-violent-video-game/.

^{38 &}quot;Brazil Bans Bully Video Game," CBC, April 11, 2008, https://www.cbc.ca/news/science/brazil-bans-bully-video-game-1.763042.

³⁹ Holin Lin, "How Video Game Techno-Governance Shapes Social Interaction," *Delphi 1*, no. 2 (January 2019): 48-51, https://delphi.lexxion.eu/data/article/14099/pdf/delphi_2019_01-011.pdf.

⁴⁰ "China Bans Kids from Playing Online Video Games During the Week," *CNN*, August 31, 2021, https://www.cnn.com/2021/08/31/tech/china-ban-video-games-minor-intl-hnk/index.html.

⁴¹ Sophie Yu and Josh Ye, "In Latest Gaming Crackdown, China Bans Livestreaming of Unauthorised Titles," *Reuters*, April 15, 2022, https://www.reuters.com/world/china/chinas-broadcasting-regulator-ban-livestreaming-games-without-approval-2022-04-15/.

⁴² Brian Ashcraft, "South Korea Abolishing Controversial Gaming Shutdown Law," *Kotaku*, August 25, 2021, https://kotaku.com/south-korea-abolishing-controversial-gaming-shutdown-la-1847553496.

⁴³ Ashcraft, "South Korea Abolishing Law."

gaming, expanding government control over gaming titles. At the very moment that games are poised to play an expanding role in digital civil society, many jurisdictions are responding with greater surveillance rather than greater speech protections.

In the U.S., lawmakers have increasingly framed new video game regulations around child protection goals. Legislation has been introduced that would make now-voluntary ESRB ratings legally binding, giving the Federal Trade Commission power to fine any retailer selling adult-rated games to minors. 4 A bill first introduced in 2019 would outlaw microtransactions in games marketed to anyone under the age of 18.4 Such a ban would not only apply to game add-ons and loot crates, but could potentially outlaw small dollar political donations and nonprofit fundraisers.

Alarmingly, several lawmakers have sought to connect video games to mass shootings, authoring legislation that would mandate the Department of Homeland Security to investigate a linkage between the two.⁴⁶ In some extreme cases, members of Congress have paired such research funding with legislation limiting existing or proposed firearm regulations, framing video game regulation as the alternative to meaningful gun control.⁴⁷ One bill would even require games to bear the unsubstantiated claim: "WARNING: Exposure to violent video games has been linked to aggressive behavior."⁴⁸

Under the proposed Kids Online Safety Act⁴⁹ and related state proposals,⁵⁰ game platforms would face sweeping restrictions on any access by minors. The laws would limit the types of content available on gaming platforms and give guardians broad access to children's and teens' online activity. Notably, the legislation would require all users to provide proof of their age and

identity. By linking game accounts to real-world identities and government-issued IDs, the law will significantly chill the way that all users, children, teens, and adults, can use the platform.

Many other jurisdictions have pursued similar laws to protect younger gamers from harmful content, which can also result in a chilling effect for online access. The United Kingdom's proposed Online Safety Bill would require firms to prove users' ages, undermining online anonymity. But the bill would go much farther, imposing affirmative obligations on game platforms and other technology companies to remove broad categories of data that are deemed harmful. This will require companies to not just log users' identities, but to disable existing privacy protections, such as end-to-end encryption.⁵¹

The European Union has also taken aim at video games, urging member states to take steps to regulate content and access. ⁵² As with so many other jurisdictions, the EU has focused on video games through the lens of child protection, ignoring the role games play in providing an online space for adults to build community and nurture civil society. Even as regulators highlight the potential video games have to host violent and hateful speech, there is no recognition of the potential for speech that positively advances societal interests.

In countries that have more questionable commitments to rule of law, the attacks on video games can be even more extreme. In Russia, more than a dozen video games face censorship under the country's draconian new law targeting depictions of LGBTQ individuals. ⁵³ Even more bombastic are recent claims that game makers use hidden subliminal messages to brainwash young users. Russian lawmakers have proposed that national regula-

⁴⁴ Video Games Ratings Enforcement Act, H.R. 287, 113th Cong. (2013).

⁴⁵ S.1629, 116th Cong. (2019).

⁴⁶ H.R. 8837, 116th Cong. (2020).

⁴⁷ S.1125, 117th Cong. (2021).

⁴⁸ H.R. 4204, 112th Cong. (2012).

⁴⁹ "Blumenthal & Blackburn Introduce Comprehensive Kids' Online Safety Legislation," *Senator Richard Blumenthal Newsroom*, February 16, 2022, https://www.blumenthal.senate.gov/newsroom/press/release/blumenthal-and-blackburn-introduce-comprehensive-kids-online-safety-legislation.

⁵⁰ Gabrielle Fonrouge, "NY Introduces Sweeping Child Privacy Bill to Make Kids Safer Online," *New York Post*, September 25, 2022, https://nypost.com/2022/09/25/ny-introduces-sweeping-child-privacy-bill-to-make-kids-safer-online/.

⁵¹ "A Guide to the Online Safety Bill," *Government of the United Kingdom*, December 16, 2022, https://www.gov.uk/guidance/a-guide-to-the-online-safety-bill.

⁵² "Texts Adopted – Consumer Protection in Online Video Games: A European Single Market Approach," *European Parliament*, January 18, 2023, https://www.europarl.europa.eu/doceo/document/TA-9-2023-0008_EN.html.

⁵³ "В Госдуме Составили Список Компьютерных Игр, Где Есть Геи и Лесбиянки" Газета.Ru, accessed May 22, 2023, https://www.gazeta.ru/social/news/2022/11/11/19010899.shtml.

tors review the content of all games to check for such material. In one of the most extreme proposals, some Russian officials are seeking to nationalize the Russian video game industry completely. Not only would this aim to fill the market gap created by the exodus of Western game firms following Russia's 2022 invasion of Ukraine, it would also aim to turn Russian gaming into a soft power tool to build public support for the Putin regime abroad. Other jurisdictions are proposing going even further, like the Philippines, in which a lawmakers proposed a rule that would allow the government to ban any game it deems "unfit for consumption." To the proposition of the proposi

"Constitutional protections may not be as enduring as they once were... Yet if this caselaw holds, the First Amendment could be an effective model for eliminating government censorship in video games, even if such case law only applies to governmental, not private, speech restrictions."

One factor that may blunt this momentum in the United States is a recent trend by the courts to extend First Amendment protections to gaming. Historically, courts gave gaming few free speech protections, holding that games involve an element of player-driven non-speech "conduct" that governments regulate in the physical world.⁵⁷ Namely, gamers choose how they play and can decide how characters act and behave.⁵⁸ For instance, the government can, and often does, set rules about

who can drink alcohol, which regulates conduct rather than speech. ⁵⁹However, twelve years ago the Supreme Court reversed course and made clear that free speech extends to video games. ⁶⁰ Subsequently, lower courts ruled that depictions of violence or so called "mature content," are not reasons that justify limiting minors' access to games. ⁶¹

For American gamers, this recent case law may be a reason for optimism about gaming regulation going forward. But at a moment when decades-old jurisprudence is being reversed for openly ideological reasons, such Constitutional protections may not be as enduring as they once were, especially in the face of growing political momentum for game regulation. Yet if this caselaw holds, the First Amendment could be an effective model for eliminating government censorship in video games, even if such case law only applies to governmental, not private, speech restrictions.

D. NEAR-TERM EXPANSION INTO XR / VR / AR

Even as regulators and lawmakers struggle to understand the implications of gaming as it exists today, a number of technologies are poised to radically reimagine the sector and its implications for civil society. Traditionally, gaming takes place on portable devices, home consoles, or personal computers. These systems each have their own trade-offs and capabilities, but they all share a common feature: players interact with a single screen. But new gaming technologies are reshaping the way users interface with gaming, opening the door to a seismic shift in what gaming means to the internet writ large.

Virtual reality is the most mature alternative display technology, but it still is a long way from where it's likely to eventually take us. Virtual reality headsets have been marketed since the 1990s, with efforts to create both immersive, full-body simulations and portable, 3D displays. Sega put one of the first consumer gaming VR headsets on the market in the early 90s, but the product never

⁵⁴ Joshua Wolens, "Russia Says Popular Games Have 'Hidden Inserts' Targeting its Youth, and it Wants to Whip up a Ban List," *PC Gamer*, January 27, 2023, https://www.pcgamer.com/russia-says-popular-games-have-hidden-inserts-targeting-its-youth-and-it-wants-to-whip-up-a-ban-list/.

⁵⁵ Wolens, "Russia Says Popular Games Have 'Hidden Inserts.'"

⁵⁶ Ana Peligro, "Regulation on Philippine Gaming Industry Sought as Digital Advocates Cry Foul," *CoinGeek*, November 8, 2022, https://coingeek.com/regulation-on-philippine-gaming-industry-sought-as-digital-advocates-cry-foul/.

⁵⁷ Marc J. Blitz, "A First Amendment for Second Life: What Virtual Worlds Mean for the Law of Video Games," *Vanderbilt Journal of Entertainment and Technology Law* 11, no. 4 (2009).

⁵⁸ Blitz, "A First Amendment for Second Life."

⁵⁹ "Alcohol Policy | National Institute on Alcohol Abuse and Alcoholism (NIAAA)," *National Institute on Alcohol Abuse and Alcoholism*, accessed May 24, 2023, https://www.niaaa.nih.gov/alcohols-effects-health/alcohol-policy.

⁶⁰ Brown v. Entertainment Merchants Ass'n, 564 U.S. 786 (2011).

⁶¹ American Amusement Machine Ass'n v. Kendrick, 244 F.3d 572 (7th Cir. 2001).

"If gaming platforms of the future are where we gather for political protests and campaigns; if they are where we come together for religious services and community events; if the metaverse truly becomes the dominant social commons of our collective future, then the legal rights we enjoy on those platforms are indispensable to the functioning of our democracy."

Albert Fox Cahn, Technology & Human Rights Fellow made it to market. Mintendo's Virtual Boy was later able to make it to market, but the device was never able to cultivate mass market appeal, even if it did develop a cult following. Market appeal is to market.

Flash forward to today, and the virtual reality arms race has brought the technology into the mainstream. Millions of players are already using virtual reality headsets for gaming, and leading firms, like Microsoft⁶⁴ and Roblox,⁶⁵ are investing billions more to expand the technology. Virtual reality investments may be losing tech giants huge sums in the short term, but they still hope the technology will pay dividends quite soon, projecting a more than 30% combined annual growth rate over the next 5 years. 66 That's because virtual



Nintendo's Virtual Boy game console. Image credit: Evan Amos

reality ambitions go far beyond gaming as we know it today. Instead, firms are seeking to use the technology as one part of metaverse expansion, transitioning gamers into using virtual reality as part of an immersive digital world that connects everything we do.

The virtual reality headset that allows you to play a first-person shooter game on the weekend suddenly can become a way to hold virtual business meetings during the week. Currently, VR gaming is still operating at a multibillion-dollar loss per year, with only a fraction of the user adoption gaming goliaths hoped for, but the long-term path remains clear. The idea of virtual reality business meetings may seem goofy to some, but it builds on the pandemic experience so many faced. Amid lockdowns, many of us explored for the first time the power of

video conferencing platforms, like Zoom, to connect us at a time when we had to remain physically apart, with usage exploding exponentially in 2020. But we also soon found the limitations of the

technology, lamenting Zoom fatigue and the loss of in-person connection. Virtual reality may not yet be able to bridge this gap, but the technology will only get better, and Silicon Valley is betting billions that one day it will give us a way to connect and collaborate remotely more effectively than with current digital products.

This is the dream of the metaverse, the (at times dystopian) vision from so many movies and books, of a world where we can live an immersive and connected life from afar. The concept first gained wide recognition in the 1992 cyberpunk

novel *Snow Crash*, but it's been given life in countless books and movies since. And the planned metaverse might be far more expansive than *Snow Crash* ever imagined. That's because gaming firms aren't limiting themselves to constructing a virtual reality for users to navigate online, but also investing in technology to bring game spaces offline.

The nascent forms of augmented reality aren't nearly as old as their virtual reality counterparts, but they still stretch back nearly a decade. In 2016, Pokémon Go became the first widescale demonstration of the technology, a game that allowed players to use their smartphones to see and interact with a virtual game environment that was projected on top of the real world. Pokémon Go was fairly primitive in terms of graphics and gameplay, but it still became an instant global hit.

⁶² Cecilia D'Anastasio, "How Video Game Historians Resurrected Sega's Lost VR Headset," *Wired*, November 20, 2020, https://www.wired.com/story/sega-vr-headset-video-game-preservation/; Dom Barnard, "History of VR - Timeline of Events and Tech Development," *VirtualSpeech*, October 6, 2022, https://virtualspeech.com/blog/history-of-vr.

⁶³ Kyle Melnick, "27 Years Later and the Virtual Boy Still Refuses to Die," *VR Scout*, July 1, 2022, https://vrscout.com/news/27-years-later-and-the-virtual-boy-still-refuses-to-die%EF%BF%BC/.

⁶⁴ Andrew Hayward, "Microsoft Frames \$69B Activision Blizzard Deal as 'Metaverse' Move," *Decrypt*, January 18, 2022, https://decrypt.co/90634/microsoft-69b-activision-blizzard-deal-metaverse-move.

⁶⁵ Rachyl Jones, "For Investors Betting on the Metaverse, Roblox Is the Only Game in Town," *Observer* (blog), February 16, 2023, https://observer.com/2023/02/for-investors-betting-on-the-metaverse-roblox-is-the-only-game-in-town/.

⁶⁶ "VR in Gaming Market Size & Share Analysis - Industry Research Report - Growth Trends," Mordor Intelligence, accessed May 22, 2023, https://www.mordorintelligence.com/industry-reports/virtual-reality-in-gaming-market.

⁶⁷ Jeffrey Rousseau, "Meta's VR Division Lost Nearly \$14bn in 2022," *GamesIndustry.biz*, February 2, 2023, https://www.gamesindustry.biz/metas-vr-division-saw-a-14bn-loss-in-2022; Deeke Strickland, "Sony's PlayStation VR 2 Is About Innovation, Not Sales," *TweakTown*, January 7, 2022, https://www.tweaktown.com/news/83867/sonys-playstation-vr-2-is-about-innovation-not-sales/index.html.

⁶⁸ Nick Wingfield and Mike Isaac, "Pokémon Go Brings Augmented Reality to a Mass Audience," *New York Times*, July 11, 2016, https://www.nytimes.com/2016/07/12/technology/pokemon-go-brings-augmented-reality-to-a-mass-audience.html.

In the years since, countless games, social media applications, and photo apps have deployed elements of augmented reality, layering graphics and data on top of images of the real world, using computer vision technology to analyze the real-world environment and display content in a way that responds. But these applications have also shared a common limitation: the smartphone screen.

But as with virtual reality, the hardware that is first developed and deployed for augmented reality gaming is poised to migrate to other areas of life. AR technology is likely to be integrated into all of the apps that currently reside on our phones and wearables. Whether it's finding directions as you walk down the street or looking up research data while you're in a meeting, AR technology promises to annotate the built world with layers of





 $Pokemon\,Go\,fest\,in\,Kenosha, Wisconsin\,(left)\,and\,Roman\,Forest, Texa\,(center).\,Image\,credit:\,Jim\,Trottier\,and\,Jill\,Carlson.\,And the contractions of the contraction of the contraction$

data constructs. Government agencies have already turned to the technology, as with the NYPD's first-in-the-nation augmented reality policing app, which overlays 911 data on buildings that officers pass. The potential integration of biometric technology, such as facial recognition, is particularly concerning from a civil rights perspective, since it would potentially allow officers to track and run background searches on any person they simply pass on the street.71

Smartphones may be able to handle an array of digital tasks deftly, but they are profoundly limited in how they navigate augmented reality. Phones simply don't have a form factor conducive to AR. Walking the world with a phone held high simply isn't comfortable for many users, and looking at a phone screen can make it harder for users to pay attention to the real-world environment. This was acutely true for Pokémon Go users. Not only did the app lead to billions of dollars of damages in road accidents, 69 but it also led to some users' deaths. 70

Many game developers and tech firms view the solution to these dangers to be a new generation of augmented reality devices, which are likely to hit the market in the coming years. New AR glasses will allow users to see the world around them while also projecting a layer of data superimposed on top of their environment. By integrating this heads-up display into hands-free glasses, developers hope to minimize the dangers posed by smartphone AR. And as with virtual reality, they are betting billions of dollars that the technology is ready for mass adoption.

E. SPEECH ON THE INTERNET OF TOMORROW

Against the backdrop of accelerating AR and VR technologies and increasingly interventionalist regulation for gaming, we see an alarming trajectory for human rights and digital civil society on the internet of the future. If technology firms continue to invest heavily in the migration of digital work, commerce, and social platforms to gaming hardware, and if we continue to regulate gaming through the lens of content ratings and child protection, the result could be a disaster for free speech and free association as we know it.

While existing internet regulations are far from perfect, they have enabled broad growth in political speech, activism, and online community creation. In the United States this has been particularly true, where a combination of strong First Amendment protections and statutes, like Section 230 of the Communications Decency Act, have largely insulated internet platforms from content-based regulations. But as virtual worlds expand

⁶⁹ Mara Faccio and John J. McConnell, "Death by Pokémon GO: The Economic and Human Cost of Using Apps While Driving," SSRN (February 2018), https://doi.org/10.2139/ssrn.3073723.

⁷⁰ Antonia Noori Farzan, "A Grandfather Died Playing Pokémon Go. Now the Security Guard Who Shot Him Is Headed to Prison.," *Washington Post*, March 5, 2019, https://www.washingtonpost.com/nation/2019/03/05/grandfather-died-playing-pokmon-go-now-security-guard-who-shot-him-is-headed-prison/.

⁷¹ Melissa Giddings, "Wolfcom's Facial Recognition Body Cameras," S.T.O.P. - *The Surveillance Technology Oversight Project*, April 23, 2020, https://www.stopspying.org/latest-news/2020/4/23/wolfcoms-facial-recognition-body-cameras.

⁷² Sara Atske, "The Metaverse in 2040," *Pew Research Center: Internet, Science & Tech* (blog), June 30, 2022, https://www.pewresearch.org/internet/2022/06/30/the-metaverse-in-2040/.

beyond gaming into work and socializing, questions about the distinction between protected speech and conduct online are arising once again. Giving rise to questions about what sort of behavior the government can regulate or prohibit in virtual worlds.

There is currently a very active debate about how to revise online speech protections, potentially amending Section 230 to impose additional moderation and transparency requirements on digital platforms.

But these suggestions stop far short of the sort of sweeping content regulations frequently proposed for gaming. And this pattern is repeated around the world, with gaming receiving far less legal protection, and far greater political scrutiny, than many other digital platforms. But if gaming platforms grow to encompass much of our future internet lives, and if we view regulation of everyone's internet experience through a narrow child protection lens, we may end up with legal norms around online privacy that bear no resemblance to what we enjoy in 2023. And if gaming firms are successful in making their platforms even more indispensable to our daily lives than existing digital platforms, the impact will only be heightened.⁷⁴

If gaming platforms of the future are where we gather for political protests and campaigns; if they are where we come together for religious services and community events; if the metaverse truly becomes the dominant social commons of our collective future, then the legal rights we enjoy on those platforms are indispensable to the functioning of our democracy. People are already using virtual reality to organize protests and political campaigns, and there's no reason to think that the trend will reverse.⁷⁵

The migration to AR and VR platforms doesn't just create heightened privacy risks from government actors, but poses huge risks from gaming companies themselves. Already, our location, communications, searches, and browsing are captured by a largely unregulated field of advertisers, platforms, and intermediaries. AR and VR threaten to expand this surveillance even further. AR and VR platforms integrate large amounts of bodily surveillance, tracking everything from the way we reach out our arms to every blink and eye movement.

"One of the most crucial steps is to ensure platform parity between gaming and other online service providers. As long as we afford gaming systems and contents fewer legal protections... we'll continue to lay the foundation for future state control of essential digital infrastructure."

In virtual reality, unlike analog reality, our every movement can be logged, analyzed, and monetized. Augmented reality products are extraordinarily invasive attention- and sentiment-tracking technology with which to watch how we view the real world.⁷⁶

Thankfully, there are ways we can fend off this dystopian scenario and ensure that the internet of the future enables, rather than controls, individuals. One of the most crucial steps is to ensure platform parity between gaming and other online service providers. As long as we afford gaming systems and contents fewer legal protections, and as long as we mandate greater surveillance—and as long as we draw a legal dividing line that technology no longer follows—we'll continue to lay the foundation for future state control of essential digital infrastructure. Gaming systems and content must be viewed as on par with internet service providers, websites, and social media platforms. We must recognize that all too often these systems are playing the same role in digital civil society, providing the same benefits, and posing the same threats.

Additionally, lawmakers in jurisdictions like the United States, which lack generally applicable consumer privacy protections,

must take steps to protect players from the additional types of information tracked by gaming systems. End users often have far less control over AR and VR systems and privacy settings than with traditional computers, linking every element of their digital lift with their real-world identity. As gaming-based ad tracking eviscerates the last remnants of anonymity and autonomy, in both digital worlds and real life, the price of continued inaction on privacy protections will become intolerable.



VR headset rendering by Simon Waldherr

⁷³ Mark Lemley and Eugene Volokh, "Law, Virtual Reality, and Augmented Reality," University of Pennsylvania Law Review 166, no. 5 (January 2018): 1051.

^{74 &}quot;The Future of the Metaverse and Extended Reality," KPMG, April 7, 2022, https://kpmg.com/xx/en/home/insights/2022/04/the-future-of-the-metaverse.html.

⁷⁵ Louise Macaraniag, "Is There a First Amendment Right to Assemble in the Metaverse?," *The Daily Dot*, May 4, 2022, https://www.dailydot.com/debug/digital-protest-metaverse/.

⁷⁶ Katitza Leufer et al., "Virtual Worlds, Real People: Human Rights in the Metaverse," *Electronic Frontier Foundation*, December 9, 2021, https://www.eff.org/deeplinks/2021/12/virtual-worlds-real-people-human-rights-metaverse.

Carr Center for Human Rights Policy Harvard Kennedy School 79 JFK Street Cambridge, MA 02138

Statements and views expressed in this report are solely those of the author and do not imply endorsement by Harvard University, the Harvard Kennedy School, or the Carr Center for Human Rights Policy.

Copyright 2024, President and Fellows of Harvard College Printed in the United States of America This publication was published by the Carr Center for Human Rights Policy at the John F. Kennedy School of Government at Harvard University

Copyright 2024, President and Fellows of Harvard College Printed in the United States of America

