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Creativity Without IP? Vindication and Challenges in the Video Game Industry

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Abstract

This Article intervenes in the longstanding debate over whether creative production is possible without exhaustive copyright protection. Intellectual property (IP) scholars have identified "negative spaces" like comedy and tattoo art where creativity thrives without IP, but critics dismiss these examples as niche. The video game industry allows for fresh headway. It is now the largest sector in entertainment—with revenues greater than Hollywood, streaming, and music combined—yet IP does not protect key game elements from duplication. Participants navigate this absence using non-IP strategies like those identified in negative-space industries: AAA developers invest in

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copy-resistant features while indie game developers rely on community norms. The answer to whether creative production is possible within IP's negative space even in a capital-intensive industry is thus a decisive yes.

Studying this industry also compels us to go beyond surface-level questions of whether creative production is possible and to grapple with how the configuration of IP and non-IP protections shapes what is produced and how this configuration favors some creators over others. The industry likewise pushes us to recognize that the stability of these regimes is contingent on broader features of technology, the economy, and society at large. In fact, the industry has come full circle from a sector where copying plagued the industry, to one where it became a non-issue, to one where it has reemerged as a problem in mobile gaming.

The video game industry is also crucial for study because it embodies the state of creative production in the information age. Scholarship has long treated legacy industries like Hollywood and music as paradigmatic without attending to the complex realities of modern creative production and the importance of going beyond IP to understand how these industries work. It is time we moved past the conceptual divide between "full IP" and negative spaces to interrogate the overlapping but partial legal protections across both sides of the line.

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INTRODUCTION

Is copyright necessary for creative production? Scholars grappling with this question have investigated numerous case studies on creative activity in intellectual property's (IP's) "negative spaces"—activities ranging from fashion[1] to comedy,[2] stage magic,[3] haute cuisine,[4] and tattoo artistry,[5] along with fan communities,[6] where creativity thrives without need for IP. These studies indicate creative industries may be able to achieve a "low-IP equilibrium" where creators mitigate the risk of copying through non-IP strategies, often by enforcing anti-copying norms among creators.[7]

Some scholars have drawn on the negative-space literature to question the need for IP in other creative industries.[8]

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1. *See generally* Kal Raustiala & Christopher Sprigman, *The Piracy Paradox: Innovation and Intellectual Property in Fashion Design*, 92 VA. L. REV. 1687 (2006) [hereinafter, Raustiala & Sprigman, *The Piracy Paradox*]; Kal Raustiala & Christopher Sprigman, *The Piracy Paradox Revisited*, 61 STAN. L. REV. 1201 (2009) [hereinafter Raustiala & Sprigman, *The Piracy Paradox Revisited*].

2. *See generally* Dotan Oliar & Christopher Sprigman, *There's No Free Laugh (Anymore): The Emergence of Intellectual Property Norms and the Transformation of Stand-Up Comedy*, 94 VA. L. REV. 1787 (2008); David Fagundes & Aaron Perzanowski, *Clown Eggs*, 94 NOTRE DAME L. REV. 1313 (2019).

3. *See generally* Jacob Loshin, *Secrets Revealed: Protecting Magicians' Intellectual Property Without Law*, *in* LAW AND MAGIC: A COLLECTION OF ESSAYS 123 (Christine A. Corcos ed., 2010).

4. *See generally* Emmanuelle Fauchart & Eric von Hippel, *Norms-Based Intellectual Property Systems: The Case of French Chefs*, 19 ORG. SCI. 187 (2008).

5. *See generally* Aaron Perzanowski, *Tattoos & IP Norms*, 98 MINN. L. REV. 511 (2013).

6. *See generally* Steven A. Hetcher, *Using Social Norms to Regulate Fan Fiction and Remix Culture*, 157 U. PA. L. REV. 1869 (2009); Cathay Y.N. Smith, *Beware the Slender Man: Intellectual Property and Internet Folklore*, 70 FLA. L. REV. 601 (2018); Elizabeth L. Rosenblatt, *Who Will Speak for the Slender Man?: Dialogism and Dilemmas in Character Copyright*, 70 FLA. L. REV. F. 69 (2018); Rebecca Tushnet, *Legal Fictions: Copyright, Fan Fiction, and a New Common Law*, 17 LOY. L.A. ENT. L. REV. 651 (1997).

7. *See* Amy Kapczynski, *Order Without Intellectual Property Law: Open Science in Influenza*, 102 CORNELL L. REV. 1539, 1543–44 (2017); Elizabeth L. Rosenblatt, *A Theory of IP's Negative Space*, 34 COLUM. J.L. & ARTS 317, 341–57 (2011).

8. *See, e.g.*, Aaron Perzanowski & Kate Darling, *Introduction*, *in* CREATIVITY WITHOUT LAW: CHALLENGING THE ASSUMPTIONS OF INTELLECTUAL

Copyright is costly because it poses obstacles for future creators[9] and raises prices for consumers.[10] The conventional account holds that these costs are justified because copyright incentivizes the creation and distribution of creative works.[11] By documenting communities where these incentives are unnecessary, the negative-space literature suggests copyright should be scaled back in other sectors where it does not meaningfully advance creativity.

Critics of the negative-space literature argue against the general application of these case studies because they analyze niche forms of creative production that do not require large capital expenditures.[12] Some also question whether IP is absent. One scholar has noted, for example, that the authors of the fashion case study that launched the study of IP's negative space "make a strong case for why fashion can function in the absence of *copyright*, but they largely ignore the role played by *trademarks*."[13] Critics argue that formal IP rights become increasingly necessary as an industry grows in economic significance and production becomes more expensive.[14] Other work questions the distributive consequences of non-IP strategies like deference to norms, finding that the benefits of

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PROPERTY 7 (Kate Darling & Aaron Perzanowski eds., 2017) ("We cannot prove, nor do we claim, that communities that rely on social norms or market-based responses to address information appropriation produce an optimal balance of incentives and costs. But the same is true of the case for strong IP protection.").

9. *See* William M. Landes & Richard A. Posner, *An Economic Analysis of Copyright Law*, 18 J. LEGAL STUD. 325, 332 (1989) ("The effect [of copyright protection] would be to raise the cost of creating new works . . . .").

10. *See* Glynn S. Lunney, Jr., *Reexamining Copyright's Incentives-Access Paradigm*, 49 VAND. L. REV. 483, 492–98 (1996); Oren Bracha & Talha Syed, *Beyond the Incentive-Access Paradigm? Product Differentiation & Copyright Revisited*, 92 TEX. L. REV. 1841, 1852–53 (2014).

11. *See, e.g.*, Harper & Row, Publishers, Inc. v. Nation Enters., 471 U.S. 539, 558 (1985).

12. *See* Kapczynski, *supra* note 7, at 1545–46; Jonathan M. Barnett, *The Illusion of the Commons*, 25 BERKELEY TECH. L.J. 1751, 1755 (2010) ("[T]hese markets tend to be confined to technologically primitive markets where innovators have relatively insubstantial investments at risk."); Rochelle Cooper Dreyfuss, *Does IP Need IP? Accommodating Intellectual Production Outside the Intellectual Property Paradigm*, 31 CARDOZO L. REV. 1437, 1455–57 (2010).

13. Dreyfuss, *supra* note 12, at 1450 (emphasis in original).

14. *See supra* note 12 and accompanying text.

such strategies often flow to the well-financed or well-connected incumbents least in need of protection.[15]

The video game industry provides a unique opportunity to test the viability of a low-IP equilibrium for a high-revenue, capital-intensive creative industry.[16] With global revenues over $170 billion in 2020, gaming has become one of today's most economically significant creative industries.[17] The industry now generates greater revenues than Hollywood, music, and

15. Dreyfuss, *supra* note 12, at 1463–65; *see* Amy Kapczynski, *The Law of Informational Capitalism*, 129 YALE L.J. 1460, 1494 (2020) (book review) ("One important task . . . is to unpack how demands for 'openness,' 'sharing,' and 'freedom' in the internet age helped enable—or at least did not stand in the way of—the development of troubling forms of private power."); Betsy Rosenblatt, IP Law in the Shadow of Norms 8, 10 (July 26, 2021) (unpublished manuscript) (on file with author). *But see* Raustiala & Sprigman, *The Piracy Paradox Revisited*, *supra* note 1, at 1221 ("[F]ashion's low-IP equilibrium does at least deprive large fashion firms of one anticompetitive tool that big firms operating in high-IP markets often use to grind down upstarts: lawyers.").

16. The conventional designation of the games industry and other sectors as "creative" can be problematic because the terminology foregrounds "mysterious act[s] of inspiration" associated with individual creativity at the expense of the material conditions of production and the more mundane ways these industries shape culture. Peter Zackariasson, *The Role of Creativity*, *in* CHANGING THE RULES OF THE GAME: ECONOMIC, MANAGEMENT AND EMERGING ISSUES IN THE COMPUTER GAMES INDUSTRY 105, 106–07 (Sabine Hotho & Neil McGregor eds., 2013); *see also* Wallace McNeish, *Critical Perspectives on the Games Industry: Constructs and Collusion*, *in* CHANGING THE RULES OF THE GAME: ECONOMIC, MANAGEMENT AND EMERGING ISSUES IN THE COMPUTER GAMES INDUSTRY 166, 182 (Sabine Hotho & Neil McGregor eds., 2013) ("The games industry is far from special, rather it is an industry that like any other is concerned with manufacturing and selling commodities with the aim of generating profits."); *cf.* Julie E. Cohen, *Creativity and Culture in Copyright Theory*, 40 U.C. DAVIS L. REV. 1151, 1154 (2007) ("Like other cultural processes, artistic and intellectual processes are substantially and importantly shaped by the concrete particulars of expression, the material attributes of artifacts embodying copyrighted works, and the spatial distribution of cultural resources."). This Article retains the conventional terminology but conscientiously interrogates the role that law and economic forces play in shaping production and cultural content.

17. Kellen Browning, *In a World Let Loose, Video Game Makers Are 'Doubling Down'*, N.Y. TIMES (May 30, 2021), https://perma.cc/CWR3-3RNW (last updated July 23, 2021). Lockdowns during the COVID-19 pandemic contributed to 2020 revenues, but 2019 revenues surpassed $150 billion prior to these developments. Wallace Witkowski, *Videogames Are a Bigger Industry than Movies and North American Sports Combined, Thanks to the Pandemic*, MARKETWATCH (Dec. 22, 2020, 11:36 AM), https://perma.cc/FQA4-YRTK (last updated Jan. 2, 2021, 10:27 AM).

streaming services combined.[18] It is also capital intensive, with recent blockbusters costing $100 million or more in production costs and sometimes just as much in marketing.[19] Gaming's significance is also evident in its cultural impact. What was once a hobby for teenage boys[20] now engages 64% of the U.S. population, nearly half of them women and spanning all age groups.[21] Video games have also been a lightning rod in U.S. culture wars, most notably for prompting debates over violence in entertainment media;[22] depictions of sexuality;[23] and issues of diversity, equity, and representation.[24]

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18. Felix Richter, *Gaming: The Most Lucrative Entertainment Industry by Far*, STATISTA (Sept. 22, 2020), https://perma.cc/56RE-MFM6. Video game revenues have exceeded Hollywood's since at least 2009 and music's since at least 2007. Tom Chatfield, *Videogames Now Outperform Hollywood Movies*, THE GUARDIAN (Sept. 27, 2009, 6:29 AM), https://perma.cc/P36W-2LHU; *see* Jacqui Cheng, *Report: Video Game Spending to Surpass Music Spending This Year*, ARS TECHNICA (June 23, 2007, 10:35 AM), https://perma.cc/M2LK-XNTP.

19. *See, e.g.*, Chatfield, *supra* note 18 (documenting *Grand Theft Auto IV*'s production costs).

20. *See* Data E. USA, Inc. v. Epyx, Inc., 862 F.2d 204, 209–10, 210 n.6 (9th Cir. 1988) (deeming a game's target audience to be a "discerning 17.5-year-old boy").

21. ENT. SOFTWARE ASS'N, 2020 ESSENTIAL FACTS ABOUT THE VIDEO GAME INDUSTRY 3–5 (2021), https://perma.cc/HGQ5-AT49 (PDF). Players are also racially diverse. Survey data indicates a greater proportion of Black and Hispanic respondents self-identify as "gamers" than their white peers. *See* Monica Anderson, *Views on Gaming Differ by Race, Ethnicity*, PEW RSCH. CTR. (Dec. 17, 2015), https://perma.cc/UTD5-T73E.

22. *See* Brown v. Ent. Merchs. Ass'n., 564 U.S. 786, 804 (2011) ("California's effort to regulate violent video games is the latest episode in a long series of failed attempts to censor violent entertainment for minors."); Patrick M. Markey & Christopher J. Ferguson, *Teaching Us To Fear: The Violent Video Game Moral Panic and the Politics of Game Research*, 10 AM. J. PLAY 99, 102 (2017) ("As early as 1983 . . . the U.S. Surgeon General[] suggested that video games . . . were a leading cause of family violence."); Ralph Blumenthal, *'Death Race' Game Gains Favor, But Not with the Safety Council*, N.Y. TIMES (Dec. 28, 1976), https://perma.cc/ZB6B-TZAS.

23. *See* Protect Children from Video Game Sex and Violence Act, H.R. 669, 108th Cong. § 3(a) (2003); Cian Maher, *Mass Effect 2's Jack Was Originally Pansexual, But Non-Straight Romances Were Cut Because of Fox News*, THEGAMER (Jan. 22, 2021), https://perma.cc/FT33-F8GB.

24. Video game history has witnessed progressive reform followed by backlash. Women and allies in the industry came forward with the #1reasonwhy movement to confront gendered harassment in video games in 2012, five years before the #MeToo movement emerged in Hollywood. *See* JESPER JUUL, HANDMADE PIXELS: INDEPENDENT VIDEO GAMES AND THE QUEST FOR AUTHENTICITY 115 (2019). The "GamerGate" incident followed shortly

Video games' rise to prominence is all the more significant given that key game elements lack IP protection. While we normally turn to copyright to protect creative works, copyright offers only thin protection for game design.[25] It covers aspects of increasingly photorealistic games that make them resemble films—art assets, unique characters, and soundtracks—but it does not cover design elements unique to games as an interactive medium.[26] For over forty years, this gap has meant that copyright does not prohibit "clones"—games that utilize the same gameplay and compete for the same set of players.[27] Game developers therefore require strategies beyond IP to compete with those who would copy their works.

Gaming should, under these circumstances, be a prime candidate for studying how IP—or its absence—impacts a major creative industry. Yet video games are conspicuously absent from IP scholarship. The number of law review pieces featuring "video-game" within ten words of "copyright" is nearly an order of magnitude less than the number mentioning "music" or "software."[28] What little has been written on video games has been split across a wide range of topics but seldom focuses on cloning or the ultimate question of how IP shapes the industry and creative content of games.[29] The breadth is not in itself

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after, launching a campaign of coordinated harassment that "involved online attacks and threats toward a number of developers and critics—especially marginalized developers, women, and developers with nontraditional gender identities." *Id.* at 118.

25. *See infra* Part II.

26. *Cf.* Drew S. Dean, Comment, *Hitting Reset: Devising a New Video Game Copyright Regime*, 164 U. PA. L. REV. 1239, 1279 (2016) (advising designers to infuse games with "more 'traditional' forms of expression" for protection).

27. *See infra* Part I.

28. Searching Westlaw's law reviews and journals database through January 1, 2022, for all hits on "copyright" within 10 words of "music" yielded 6,614 results and a similar search for "software" yielded 7,844. Searching for "video-game!" yielded only 933. Even restricting the search to publications since the year 2000—excluding prior decades where games were less economically and culturally salient—"music" yields 5,361 hits, "software" 5,568, and "video-game!" 642.

29. Notable exceptions include a comment by Drew Dean, *supra* note 26, arguing for greater protection in response to cloning by mobile developers, and the newly published article by Christopher B. Seaman & Thuan Tran, *Intellectual Property and Tabletop Games*, 107 IOWA L. REV. 1615 (2022), addressing how IP rights impact innovation in the related sector of board

surprising given that the copyright issues salient for games have evolved alongside their technological and social contexts. The arcade machines of the 1970s and 1980s sat in public places and forced courts to decide whether gameplay constituted "public performance;"[30] the console wars of the 1990s raised questions of whether games could be reverse engineered or emulated;[31] and increasing authenticity has raised questions around the depiction of real people and places, or even athletes' tattoos.[32] In recent years, several pieces—many by enterprising law students—have interrogated the respective rights of game developers and fan communities as players have begun streaming gameplay on platforms like Twitch and YouTube or animating game characters like puppets to create "machinima" videos.[33]

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games. One of my own students has also written a forthcoming paper on issues of labor law and unionization in the industry. Laura Newberry, Note, *The ABCs of Gaming: Activision, Biden, and Coronavirus Set the Stage for Labor Unionization in the Video Game Industry*, 2022 WIS. L. REV. (forthcoming) (on file with author).

30. *See, e.g.*, Red Baron-Franklin Park, Inc. v. Taito Corp., 883 F.2d 275, 278–79 (4th Cir. 1989).

31. *See* Sega Enters. Ltd. v. Accolade, Inc., 977 F.2d 1510, 1518–19 (9th Cir. 1992); Sony Computer Ent., Inc. v. Connectix Corp., 203 F.3d 596, 603–05 (9th Cir. 2000).

32. *See* E.S.S. Ent. 2000, Inc. v. Rock Star Videos, Inc., 547 F.3d 1095, 1097–98, 1101 (9th Cir. 2008) (rejecting trademark and trade dress claims for depiction of a strip club); Solid Oak Sketches, LLC v. 2K Games, Inc., 449 F. Supp. 3d 333, 346–50 (S.D.N.Y. 2020) (finding that in-game depiction of tattoos on NBA players constituted fair use).

33. *See generally* David E. Ashley, Note, *The Public as Creator and Infringer: Copyright Law Applied to the Creators of User-Generated Video Content*, 20 FORDHAM INTELL. PROP. MEDIA & ENT. L.J. 563 (2009); J. Remy Green, Note, *All Your Works Are Belong to Us: New Frontiers for the Derivative Work Right in Video Games*, 19 N.C. J.L. & TECH. 393 (2018); Shani Shisha, *Fairness, Copyright, and Video Games: Hate the Game, Not the Player*, 31 FORDHAM INTELL. PROP. MEDIA & ENT. L.J. 694, 761–69 (2021); Ryan Wallace, Comment, *Modding: Amateur Authorship and How the Video Game Industry Is Actually Getting It Right*, 2014 BYU L. REV. 219 (2014). Scholars have also documented expansion of end-user license agreements and DMCA anti-circumvention measures in games alongside similar developments in software generally. *See generally* BJ Ard, *Notice and Remedies in Copyright Licensing*, 80 MO. L. REV. 313 (2015) [hereinafter Ard, *Notice and Remedies*]; Joshua A.T. Fairfield, *Nexus Crystals: Crystallizing Limits on Contractual Control of Virtual Worlds*, 38 WM. MITCHELL L. REV. 43 (2011); Guy A. Rub, *Against Copyright Customization*, 107 IOWA L. REV. 677 (2022).

This lack of scholarly attention to cloning is surprising, however, because cloning has been one of the industry's few constants. In gaming's earliest days, developers crashed the market by flooding it with *Pong* clones.[34] The practice continued through the arcade, console, and mobile gaming eras because judicial decisions since as early as 1981 repeatedly held that cloning does not infringe the copyright in the original games[35]—up to a point.[36] This makes video games ripe for study on not only how the industry functions in the absence of strong copyright protection today, but also how this state of affairs has impacted the industry's history and evolution.

The industry's evolution provides remarkable illustrations of dynamics identified in prior studies of IP's negative space. On one side of the industry are highly commercialized AAA games that cost upward of $100 million to produce.[37] AAA publishers copy and build on popular gameplay elements from their competitors, but cloning disputes are rare.[38] This sector resembles the paradigmatic low-IP equilibrium where the harms of copying are mitigated by features of the works themselves.[39] One cannot cheaply clone a multimillion dollar game and expect it to be competitive: much of the game's appeal comes from features like hyper-realistic graphics and sprawling

34. *See generally* Mark J.P. Wolf, *The Video Game Industry Crash of 1977*, *in* BEFORE THE CRASH: EARLY VIDEO GAME HISTORY 81 (Mark J.P. Wolf ed., 2012).

35. *See* Incredible Techs., Inc. v. Virtual Techs., Inc., 400 F.3d 1007, 1012–15 (7th Cir. 2005); Data E. USA, Inc. v. Epyx, Inc., 862 F.2d 204, 209 (9th Cir. 1988); Atari, Inc. v. Amusement World, Inc., 547 F. Supp. 222, 229–30 (D. Md. 1981); Capcom U.S.A., Inc. v. Data E. Corp., No. C 93-3259, 1994 WL 1751482, at *5 (N.D. Cal. Mar. 16, 1994).

36. *See* Atari, Inc. v. N. Am. Philips Consumer Elecs. Corp., 672 F.2d 607, 617–18 (7th Cir. 1982) (holding defendant infringed on *Pac-Man* because it copied the protagonist and enemies too closely); Universal City Studios, Inc. v. Nintendo Co., 615 F. Supp. 838, 859 (S.D.N.Y. 1985), *aff'd*, 797 F.2d 70 (2d Cir. 1986).

37. *See infra* I.C.1.

38. *See* Eric A. Taub, *In Video Games, Sequels Are Winners*, N.Y. TIMES (Sept. 20, 2004), https://perma.cc/UC5H-2LF2 ("The game industry is not interested in original ideas. We don't even waste our time pitching them . . . ." (internal quotation omitted)); Christopher Lunsford, Note, *Drawing a Line Between Idea and Expression in Videogame Copyright: The Evolution of Substantial Similarity for Videogame Clones*, 18 INTELL. PROP. L. BULL. 87, 101 (2013).

39. *See infra* Part IV.A.1.

open worlds that are expensive to duplicate and therefore resistant to copying regardless of IP protection.[40] Effectively, however, major franchises are guilty of cloning their own games given how heavily they rely on sequels and associated trademarks.[41] Critics have derided this sequelization as a sign of creative stagnation since the advent of the AAA sector in the early 2000s.[42]

On the other side are "indie" games. Independent studios have adopted a different ethos; they strive to innovate in theme and gameplay rather than compete on production value.[43] This sector resembles the paradigmatic norm-enforcement regime.[44] Indie success requires winning approval from the cultural intermediaries who award exhibition space, prizes, and networking opportunities to promising developers.[45] Winning approval, in turn, requires compliance with community anti-copying norms, which mitigates cloning among indie developers.[46] Indie studios also avert cloning by picking themes and aesthetics without mainstream appeal,[47] and they additionally mitigate risk through financial innovations like crowdfunding.[48] Because the novel gameplay mechanics at the core of many indie games are cheap to emulate, however, they now face the risk of cloning by opportunistic actors in mobile gaming.[49]

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40. *See infra* Part IV.B.1.

41. *See* Taub, *supra* note 38 ("In the six-month period ending in June, only two of the 10 best-selling video games were based on original ideas . . . .").

42. *See id*.

43. JUUL, *supra* note 24, at 34–37; *see infra* Part I.C.2.

44. *See infra* .

45. *See, e.g.*, Felan Parker et al., *Megabooth: The Cultural Intermediation of Indie Games*, 20 NEW MEDIA & SOC'Y 1953, 1968 (2017); *see infra* Part IV.C.1.

46. *See* Christian Katzenbach et al., *Copies, Clones, and Genre Building: Discourses on Imitation and Innovation in Digital Games*, 10 INT'L J. COMMC'N 838, 852–53 (2016); Tom Phillips, *"Don't Clone My Indie Game, Bro": Informal Cultures of Videogame Regulation in the Independent Sector*, 24 CULTURAL TRENDS 143, 149–51 (2015) (outlining the "evaluation of the artistic integrity of games" that takes place informally within the indie community, often done through public shaming).

47. *See infra* Part IV.C.2.

48. *See infra* Part IV.C.3.

49. *See infra* Part IV.C.4.

While this case study advances the debate over IP's negative space, the significance of the video game industry goes beyond vindicating the argument that creative production is viable with limited IP protection. The video game industry exemplifies the realities of contemporary creative production and the complex interplay of legal and non-legal protections across creative industries. Moving forward, this case study advances our understanding of the creative industries in four ways. First, it pushes us beyond asking whether such production is possible and to grapple with how the interplay of legal and non-legal protections shapes the substance of what the industry produces and determines which creators are likely to succeed. Competing by budget, like AAA publishers, raises the costs of entry, and, combined with reliance on trademarks, leads to lack of variety in big-budget games.[50] Meanwhile, indie studios are steered toward niche content and arguably under-rewarded for innovation and risk-taking.[51]

Second, this study requires us to recognize that creative industries are not monolithic. AAA and indie approaches represent two very different strategies within the same industry, and outcomes within each segment vary.[52] Other pursuits such as fashion and comedy likewise have incumbents at the top, amateurs trying to break in, and, undoubtedly, many tiers of creative and financial success in between.[53] Assessing whether a legal regime works—or even whether it is low-IP—depends on which segments we examine.

Third, close examination of these segments and their history also shows that the stability of the regime is contingent on its intersections with broader trends in technology, the market, and society.[54] Cloning was rampant in the early years because games were simple and cheap to copy.[55] Game developers responded with technical protections and business strategies that mitigated cloning until such point that

50. *See infra* Part V.A.

51. *See infra* Part V.A.

52. *See infra* Part V.B.

53. *See, e.g.*, Fabian Holt & Maria Mackinney-Valentin, *Can Anyone Be a Designer?: Amateurs in Fashion Culture*, 3 ARTIFACT: J. DESIGN PRAC. 6.1, 6.1 (2015).

54. *See infra* Part V.C.

55. *See infra* Part I.A.

top-selling games were so expensive to produce that cloning was no longer a threat.[56] Yet cloning reappeared as mobile gaming became popular because people were once again playing games that were simple and cheap to copy.[57]

Fourth, this case study demonstrates the shortcomings of a taxonomy that bifurcates industries into either the "full-IP" or negative-space category.[58] Notwithstanding the law's apparent indifference to cloning, some may object that games do not belong in the negative-space discussion.[59] Others question whether even paradigmatic examples like fashion and comedy qualify, given the prominence of trademarks in fashion and the reality that many comedians seek to profit from copyrighted specials.[60] But to quibble over whether any given industry makes the cut is to risk missing the point. Every category of creative works features some elements that are legally protected, some subject to de facto protection through practical obstacles or norms, and others that competitors can readily appropriate. Protection regimes exist on a spectrum, not a binary. To progress our understanding of today's creative industries requires opening the field and recognizing the dynamics playing out across both sides of the supposed divide between negative-space industries and those, like film and music, that are conventionally recognized as having full copyright protection.[61]

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56. *See infra* Parts I.B, I.C.1.

57. *See infra* Part I.C.2.

58. *See infra* Part V.D.

59. These objections may stem from the observation that copyright law formally protects against consumer copying in the form of piracy. Even in this setting, however, formal legal rights do only part of the work. Although full examination of these dynamics is beyond the scope of this Article, it bears noting that video game publishers have established comprehensive anti-piracy protection not by threatening legal action but by adopting technical measures and business models that create practical obstacles for piracy and dampen its financial impact. *See, e.g.*, Andrew V. Moshirnia, *Giant Pink Scorpions: Fighting Piracy with Novel Digital Rights Management Technology*, 23 DEPAUL J. ART, TECH. & INTELL. PROP. L. 1, 2 (2012). I intend to develop these observations further in future work.

60. *See* Dreyfuss, *supra* note 12, at 1450.

61. This broadens the dialog to include, among other scholarship, work on copyright's role in structuring investment in capital-intensive works like films and work documenting the correlation between changes in copyright enforceability and the output of the music industry. *See generally* Julie E.

This Article develops the foregoing arguments in five Parts. Part I traces the history of the gaming industry, with special attention paid to cloning in the early years; the later emergence of AAA games, where cloning is not a major threat; and indie games, where the resurgence of cloning once again raises problems. Part II engages with legal doctrine to explain why copyright provides only limited protection against cloning, and Part III explains why patent and trademark do not fill this gap. Part IV introduces the negative-space literature and situates the video game industry's non-legal strategies for addressing cloning within that body of scholarship. Finally, Part V delves further into the broader implications of this case study for understanding the interplay between copyright and the creative industries.

I. STATE OF THE INDUSTRY

Understanding the industry requires knowing its history. Many contemporary struggles echo those the industry faced in the early years of arcade games, Atari home consoles, and rampant cloning. More recent trends stem from the industry's adoption of digital distribution and online business models. The following discussion outlines the developments that laid the groundwork for two contemporary models for competing: the big-budget, AAA publishers and the lower budget indies.

A. Early Clones, Low Quality, and Market Crashes

The history of the industry begins with the release of the arcade game *Computer Space* in 1971 by Nolan Bushnell and Ted Dabney; the pair would go on to found Atari the following year and release the arcade hit *Pong*.[62] Many imitators followed

Cohen, *Copyright as Property in the Post-Industrial Economy: A Research Agenda*, 2011 WIS. L. REV. 141 (2011); GLYNN LUNNEY, COPYRIGHT'S EXCESS: MONEY AND MUSIC IN THE U.S. RECORDING INDUSTRY (2018).

62. *See* STEVEN L. KENT, THE ULTIMATE HISTORY OF VIDEO GAMES xii, 38–39 (2001). The history of non-commercial video games reaches back to at least 1961 with *Spacewar!*, which was created by a team at MIT. *See* RANDY NICHOLS, THE VIDEO GAME BUSINESS 16 (2014). Setting the tone for all that was to come, *Computer Space* was itself a clone of *Spacewar!*. *See* Casey O'Donnell, *The North American Game Industry*, *in* THE VIDEO GAME INDUSTRY: FORMATION, PRESENT STATE, AND FUTURE 99, 100 (Peter Zackariasson & Timothy L. Wilson eds., 2012).

with cloned "table tennis" games.[63] As it turns out, Atari itself copied from another developer to create *Pong*:[64] Bushnell and Dabney began working on *Pong* after viewing a pre-release demonstration of a table tennis game for the first home video game console, the Magnavox Odyssey.[65] The Odyssey hit the market in September 1972 with twelve games, including *Table Tennis* at the top of the list; Atari released the virtually identical *Pong* two months later.[66] For a time the games were complementary: *Pong* was so popular in arcades that it drove people to buy the Odyssey to keep playing at home.[67] The companies' relationship soured around Atari's release of *Home Pong* in 1975.[68]

Magnavox responded with a patent suit against Atari and other imitators, leading to one of the first video game lawsuits[69] and the only major episode of patent enforcement involving game clones.[70] The patent covered the game mechanic whereby a player-controlled symbol (the paddle) strikes a computer-controlled symbol (the ball) and causes the latter to change direction.[71] Atari and several other defendants elected to

63. *See* HAROLD GOLDBERG, ALL YOUR BASE ARE BELONG TO US: HOW FIFTY YEARS OF VIDEOGAMES CONQUERED POP CULTURE 30–31 (2011) ("By the time the trend peaked, there were well over 100,000 Pong-inspired arcade games across the United States.").

64. *See* TRISTAN DONOVAN, REPLAY: THE HISTORY OF VIDEO GAMES 14–26 (2010).

65. RALPH H. BAER, VIDEOGAMES: IN THE BEGINNING 81 (2005); *see* Kate Willaert, *Pixels in Print (Part 2): Advertising Odyssey—The First Home Video Game*, VIDEO GAME HIST. FOUND. (Mar. 20, 2020), https://perma.cc/3JQD-L9FG.

66. *See* Willaert, *supra* note 65.

67. *See* Chris Kohler, *How* Pong *and the Odyssey Console Launched the Videogame Era*, WIRED (Jan. 9, 2015, 6:30 AM), https://perma.cc/8DXE-W75D ("*Pong*'s success was actually visited back onto the Odyssey, which had its biggest sales in 1974—after *Pong* had become a huge arcade success, but a year before Atari could launch its first Home Pong product.").

68. *See* DONOVAN, *supra* note 64, at 34–36.

69. *See* William K. Ford, *Copy Game for High Score: The First Video Game Lawsuit*, 20 J. INTELL. PROP. L. 1, 37 (2012). The first suit was filed between another pair of *Pong* imitators in 1973. *See id.* at 3.

70. *See generally* Magnavox Co. v. Bally Mfg. Corp., 414 F. Supp. 891 (N.D. Ill. 1976).

71. *See* U.S. Patent No. 28,507 (filed Apr. 25, 1974); Magnavox Co. v. Chi. Dynamic Indus., Nos. 74 C 1030 & 74 C 2510, 1977 U.S. Dist. LEXIS 17996, at *4 (N.D. Ill. Jan. 10, 1977).

settle and pay license fees to continue selling *Pong*, while those who refused to settle lost in court.[72]

The proliferation of *Pong* clones also set the stage for the Video Game Crash of 1977. By 1977 there was a glut of "first-generation" game consoles, many of which were poorly made and most of which could only play one game—usually some version of table tennis—or a handful of pre-installed games.[73] Sales stagnated because consumers who bought one had no reason to buy another.[74] Retailers' inability to sell these consoles compounded following the release of "second-generation" consoles like the Atari 2600 that allowed consumers to acquire new games via standalone cartridges.[75] First-generation stock sat unsold or was sold at a loss, and many manufacturers were forced out of business.[76]

Atari continued to produce hits in the arcades and on home consoles—and imitators continued to follow. Its game *Asteroids* spawned the clone *Meteors*, which prompted Atari to file a pivotal copyright lawsuit.[77] Both games had the player pilot a spaceship with the objective of shooting space rocks while avoiding collisions.[78] The court enumerated twenty-two similarities, from inclusion of exactly three different sizes of rocks to awarding extra lives when the player scored 10,000 points.[79]

Yet the court found no infringement.[80] As it explained, the resemblance traced back to "the basic idea of a video game involving space rocks."[81] Copyright does not give any company exclusive rights to an idea; likewise, it does not convey a

72. *See Magnavox*, 1977 U.S. Dist. LEXIS 17996, at *12; DONOVAN, *supra* note 64, at 26.

73. *See* Wolf, *supra* note 34, at 83–87.

74. *See id.*

75. *See id.*

76. *See id.* at 83.

77. *See generally* Atari, Inc. v. Amusement World, Inc., 547 F. Supp. 222 (D. Md. 1981).

78. *See id.* at 227.

79. *Id.* at 224–25.

80. *Id.* at 229–30.

81. *Id.* at 229.

monopoly on expressive elements necessary or inevitable in depicting that idea.[82]

Undeterred, Atari returned to court to enforce the copyright in *Pac-Man*.[83] Atari did not create the original game.[84] Rather, after *Pac-Man* became an arcade sensation, Atari acquired the exclusive license to adapt it for home consoles.[85] Before Atari could release its version, however, a competitor released the unauthorized *Pac-Man* clone *K.C. Munchkin!*.[86] Both were maze chases: "the player directs [a] gobbler through the maze consuming dots and avoiding capture by the monsters; by gobbling a power capsule, the player can reverse the roles."[87] Screen captures reveal additional similarities:

82. *See id.* ("[T]he Court must be careful not to interpret [Atari's] copyright as granting [Atari] a monopoly over those forms of expression that are inextricably associated with the idea of such a video game."); *see also infra* Part II.C.

83. *See* Atari, Inc. v. N. Am. Philips Consumer Elecs. Corp., 672 F.2d 607, 620 (7th Cir. 1982).

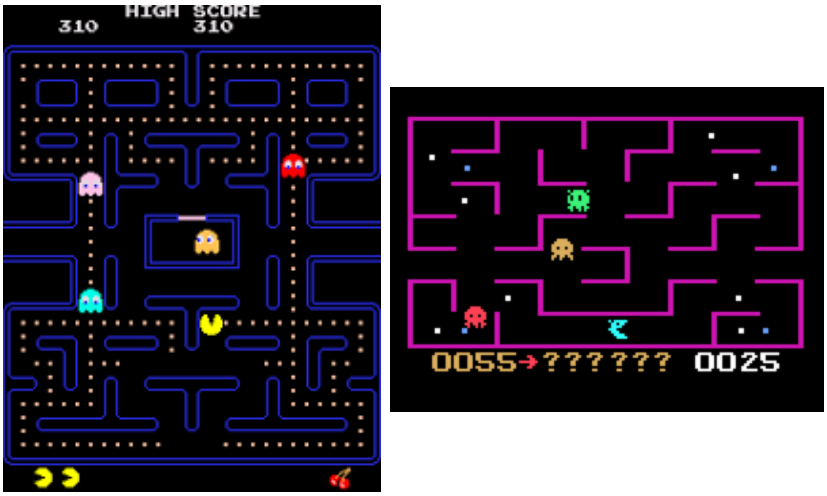
84. *See* DONOVAN, *supra* note 64, at 87–89.

85. *See* Thomas M.S. Hemnes, *The Adaptation of Copyright Law to Video Games*, 131 U. PA. L. REV. 171, 191 n.125 (1982).

86. *See Atari, Inc.*, 672 F.2d at 620.

87. *Id.* at 611.

Figure 1: *Atari v. North American Philips*



Pac-Man, left; *K.C. Munchkin!*, right

This time, Atari prevailed. As in the *Asteroids* case, the court recognized Atari could not monopolize the maze-chase idea.[88] The court insinuated that if *Pac-Man* involved common themes or real-world occurrences—like a bank robber fleeing security guards—competitors would have latitude to copy the game and its characters.[89] What distinguished *Pac-Man* was its fanciful artistic choices: a main character who was a disembodied mouth and antagonists in the form of multicolored ghosts.[90] The defendant infringed by taking the same artistic direction.[91]

88. *Id.* at 617 (distinguishing unprotectable methods of play from "concrete details of the visual presentation [that] constitute the copyrightable expression").

89. *See id.* at 617 n.10, 618 (suggesting less protection for characters with "reference to the real world" as was the case for a competing game *Take the Money and Run*).

90. *Id.* at 617–18.

91. *See id.* at 618. Other instances where plaintiffs prevailed followed similar logic. *See, e.g.*, Midway Mfg. Co. v. Bandai-America, Inc., 546 F. Supp. 125, 146 (D. N.J. 1982) (holding the insectile shape of aliens in *Galaxian* protectable); Universal City Studios, Inc. v. Nintendo Co., 615 F. Supp. 838,

Most games in this era did not approach the success of *Asteroids* or *Pac-Man*.[92] The market flourished for only a few short years after the 1977 crash before the more devastating Video Game Crash of 1983.[93] Atari's game sales accelerated following its 1980 release of the home version of *Space Invaders*, the "killer app" of its day.[94] In the rush to meet consumer demand, however, developers sacrificed quality. The ill-fated Atari game *E.T. the Extraterrestrial*—regarded as "the worst video game of all time"[95]—is emblematic. Atari reportedly spent $20 million for rights to produce a game based on the Spielberg film.[96] The rush to release the game in time for Christmas meant that developers had only six weeks to work—far less than the industry norm—resulting in a confusing game and disappointment for movie fans.[97] While many blame the *E.T.* game for the crash, it was merely the tip of the iceberg. Anyone with rudimentary programming skills could make games for the Atari 2600.[98] The market became saturated with low-quality titles not from studios who could pay millions for film licenses, but from innumerable small operations looking for a quick

859 (S.D.N.Y. 1985), *aff'd,* 797 F.2d 70 (2d Cir. 1986) (extending protection to Mario's distinctive march in *Donkey Kong*).

92. *See* KENT, *supra* note 62, at 143 ("*Pac-Man* appeared on the cover of *Time* magazine, inspired a hit song, and translated into a popular Saturday morning cartoon show."). Notwithstanding its mark on pop culture, even *Pac-Man* faced mixed success: The arcade original was a fan favorite, but Atari was ultimately stuck with five million unsold copies of its inferior home release. *See* DUSTIN HANSEN, GAME ON!: VIDEO GAME HISTORY FROM PONG AND PAC-MAN TO MARIO, MINECRAFT, AND MORE 46 (2016).

93. *See* KENT, *supra* note 62, at 123–77.

94. *The Definitive Space Invaders*, RETRO GAMER, Dec. 2003–Jan. 2004, at 23, 25.

95. Geoff Brumfiel, *Total Failure: The World's Worst Video Game*, NPR (May 31, 2017), https://perma.cc/TF6K-7AEA.

96. IAN BOGOST, PERSUASIVE GAMES: THE EXPRESSIVE POWER OF VIDEOGAMES 175 (2007).

97. *See id.*; Ted Trautman, *Excavating the Video-Game Industry's Past*, THE NEW YORKER (Apr. 29, 2014), https://perma.cc/CP93-AUEP.

98. *See* John M. Arnone, *Game (Not) Over: How a Mark Saved Video Games*, 19 J. CONTEMP. LEGAL ISSUES 247, 247–48 (2010); *see* HANSEN, *supra* note 92, at 46 ("The real problem wasn't that there weren't any good games, it was that the good games were getting drowned out by the bad ones.").

profit.[99] As quality declined, consumer confidence and sales plummeted.[100] The second generation of consoles met its end as millions of cartridges sat on shelves and in warehouses unsold.[101]

In just over a decade, the industry established several trends that would endure into the present. Imitation was widespread,[102] players were frustrated with quality,[103] and courts established in these early years that games were only partly protected.[104] Patents would continue to be important, but for hardware rather than games.[105] Going forward, the focus would be copyright, and its exceptions and limitations would leave room for imitation.

B. Hitting Reset

Nintendo spearheaded the third console generation with the U.S. release of the Nintendo Entertainment System (NES) in 1985.[106] The industry learned the importance of quality control from the 1977 and 1983 crashes.[107] Nintendo pursued this objective through marketing and the design of its system: it implemented a lockout code called 10NES so third parties could not release unauthorized games.[108] This meant Nintendo could

99. *See* Arnone, *supra* note 98, at 247 n.2 (noting that even dog food companies began to create video games).

100. *See id.* at 248.

101. Or worse. As one journalist reports: "[D]emand for video games had fallen so much that [Atari] dumped fourteen trucks' worth of merchandise in a New Mexico landfill and poured cement over the forsaken games to prevent local children from salvaging them." Trautman, *supra* note 97.

102. *See* Wolf, *supra* note 34, at 81–83.

103. *See* Arnone, *supra* note 98, at 248.

104. *See* Atari, Inc. v. Amusement World, Inc., 547 F. Supp. 222, 229–30 (D. Md. 1981); *see also* Atari, Inc. v. N. Am. Philips Consumer Elecs. Corp., 672 F.2d 607, 617 (7th Cir. 1982).

105. *See* Kyle Gross, *Game On: The Rising Prevalence of Patent-Related Issues in the Video Game Industry*, 12 SMU SCI. & TECH. L. REV. 243, 247 (2009) ("Of the few patents in effect during the early years of the video game industry, most focused on gaming hardware . . . .").

106. *See* Arnone, *supra* note 98, at 248.

107. *See id.*

108. *See* Julie E. Cohen, *Reverse Engineering and the Rise of Electronic Vigilantism: Intellectual Property Implications of "Lock-Out" Programs*, 68 S. CAL. L. REV. 1091, 1101 (1995) [hereinafter Cohen, *Reverse Engineering*]; *see*

screen for quality and reject low-effort clones like those that precipitated prior crashes. This control also assured parents of child-friendly content, albeit at the price of censorship: beyond profanity, Nintendo removed practically any reference to sexuality, religion, or politics.[109]

Similar technical restrictions were widely adopted but ultimately limited in effect. Nintendo sued for copyright infringement when Atari copied 10NES in its efforts to bypass it—Atari asserted fair use and lost.[110] This case was unusual, however, because Atari had obtained Nintendo's original source code through false representations to the Copyright Office.[111] If Atari had instead obtained the code through reverse engineering, the court suggested that its actions could have constituted fair use.[112] The following month, the Ninth Circuit embraced that dicta in a decision involving a lockout code for the Sega Genesis console.[113] Prior to that case, third parties could release games for Genesis only with Sega's approval, and they were subject to a ten to fifteen dollar license fee per cartridge.[114] Game maker Accolade reverse engineered the system to bypass the lockout code.[115] The Ninth Circuit ultimately held that

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also Atari Games Corp. v. Nintendo of Am., Inc., 975 F.2d 832, 836 (Fed. Cir. 1992).

109. Dominic Arsenault, *System Profile: The Nintendo Entertainment System (NES)*, *in* THE VIDEO GAME EXPLOSION: A HISTORY FROM PONG TO PLAYSTATION AND BEYOND 109, 111 (Mark J.P. Wolf ed., 2008); *see also* Lewis Galoob Toys, Inc. v. Nintendo of Am., Inc., 780 F. Supp. 1283, 1296 (N.D. Cal. 1991), *aff'd*, 964 F.2d 965 (9th Cir. 1992) (emphasizing efforts to prevent harm to the "Nintendo Culture").

110. *See Atari*, 975 F.2d at 843.

111. *See id.* at 841–42 ("Because Atari was not in authorized possession of the Copyright Office copy of 10NES, any copying or derivative copying of 10NES source code from the Copyright Office does not qualify as a fair use.").

112. *See id.* at 842; *see also* 4 NIMMER ON COPYRIGHT § 13.05[D][4] (2022). Reverse engineering would involve working backwards from published "object code" to determine the "source code," revealing details of the lockout mechanism. Cohen, *Reverse Engineering*, *supra* note 108, at 1098, 1098 n.29. From there, programmers could devise the means to bypass it. *Id.* Atari essentially cheated: it lied to obtain the source code without doing the work.

113. *See* Sega Enters. Ltd. v. Accolade, Inc., 977 F.2d 1510, 1525 (9th Cir. 1992). The Supreme Court subsequently endorsed this decision. *See* Google LLC v. Oracle Am., Inc., 141 S. Ct. 1183, 1199, 1208 (2021).

114. *See* KENT, *supra* note 62, at 381.

115. *Sega Enters.*, 977 F.2d at 1514–15.

reverse engineering to create interoperable software was fair use.[116] Nearly a decade later, Sony sued the maker of a PlayStation emulator, that is, a program that runs PlayStation games on a computer without the purchase of a PlayStation console.[117] The Ninth Circuit held this too was fair use.[118] Cumulatively, this meant console manufacturers had little ability to constrain third-party games and add-ons.

These rulings left the door open to unauthorized clones, and decisions in this era followed the trend of the prior decade. Competitors could copy gameplay, depictions of the same sports or other life activities, and even fantasy elements so long as they were rooted in common tropes. Take the suit by Capcom, developer of *Street Fighter II*, against the similar game *Fighter's History*.[119] Both were fighting games that depicted martial artists in their typical (often stereotypical) garb, many of whom could execute special moves like throwing fireballs from their hands.[120] The resemblance was palpable:

Figure 2: *Capcom U.S.A. v. Data East*

Street Fighter II, left; *Fighter's History*, right

116. *See id.* at 1520 ("Where there is good reason for studying or examining the unprotected aspects of a copyrighted computer program, disassembly for purposes of such study or examination constitutes a fair use.").

117. *See generally* Sony Comput. Ent. v. Connectix Corp., 203 F.3d 596 (9th Cir. 2000).

118. *See id.* at 608. The Supreme Court has also cited this case favorably. *See Google*, 141 S. Ct. at 1198, 1208.

119. *See generally* Capcom U.S.A., Inc. v. Data E. Corp., No. C 93-3259, 1994 WL 1751482 (N.D. Cal. Mar. 16, 1994).

120. *See id.* at *12–15.

When Capcom moved to enjoin the game, the district court deemed Capcom's copyright claim meritless.[121] It dissected *Street Fighter II*'s characters and signature moves and found them unoriginal because they replicated uniforms and styles prevalent in real martial arts and pop culture.[122] Even *Street Fighter II*'s fantastical elements—like the ability to hurl magical projectiles—were preceded by examples in earlier games and comic books.[123] The court refused to award the plaintiff a monopoly in the genre.

The more novel development was the rise of sequels and franchises. Popular games spawned sequels with familiar gameplay alongside incremental improvements to take advantage of new consoles' graphical capabilities.[124] Two of the most prolific were the *Super Mario Bros.* series of side-scrolling platformers with ten releases from 1985 through 2002 and the *Final Fantasy* roleplaying-game series with eleven releases over as many years.[125] Popular franchises like *Mario* also launched spin-offs beyond the game's original premise: puzzle games like *Dr. Mario*, racing games like *Mario Kart*, and titles starring his brother Luigi, his rival Wario, or his dinosaur companion Yoshi.[126] As commentators observed, sequels crowded out opportunities for new ideas and market entrants.[127] By 2004, even contemporary journalists at *The New York Times* had taken note, warning: "All licensed and all sequel game titles all

121. *See id.* at *15.

122. *See id.* at *11–12. The Ninth Circuit reached a similar conclusion in earlier litigation featuring the maker of *Fighter's History* as plaintiff, where the similarities originated in the unprotectable "*idea* of a martial arts karate combat game" and "*idea* of the karate sport." Data E. USA, Inc. v. Epyx, Inc., 862 F.2d 204, 209 (9th Cir. 1988) (emphasis in original).

123. *See Capcom*, 1994 WL 1751482, at *15–16.

124. *See* André Marchand & Thorsten Hennig-Thurau, *Value Creation in the Video Game Industry: Industry Economics, Consumer Benefits, and Research Opportunities*, 27 J. INTERACTIVE MKTG. 141, 143 (2013).

125. *See Mario Through the Years*, NINTENDO, https://perma.cc/D2BU-F59G; *History*, SQUARE ENIX, https://perma.cc/P6EG-CV9B.

126. *See Mario Through the Years*, *supra* note 125.

127. *See, e.g.*, David B. Nieborg, Triple-A: The Political Economy of the Blockbuster Video Game 204–05 (June 22, 2011) (Ph.D. dissertation, University of Amsterdam) (ResearchGate).

the time will give the consumer the impression that the market will never get interesting."[128]

The proliferation of sequels coincided with ongoing patterns of improvement and planned obsolescence in game hardware. Even without innovations in gameplay or story, technical advances in graphics allowed console manufacturers and game publishers to push a narrative of constant improvement: games just like those you enjoyed before, only better.[129] These advances are most pronounced with the launch of new console generations, which push gamers to upgrade roughly every five years.[130] Constant cycling of sequels and consoles—we have entered the ninth generation with the PlayStation 5—nonetheless entails considerable expenses for consumers and a growing ecological toll.[131]

C. Contemporary Sectors

The industry coalesced into roughly its modern form by the early 2000s.[132] At the forefront are big-budget AAA games that promise ever-improving graphics and a steady stream of sequels in well-trodden franchises.[133] Their distinguishing feature, besides production value, is the dominance of publishers—publishers decide which games to fund and then

128. Taub, *supra* note 38.

129. *See* NICHOLS, *supra* note 62, at 30 ("Reliance on planned obsolescence through changes in the hardware sector has given the industry two advantages—a continually changing framework for design and innovation and a regular source of restimulating dying markets."); James Newman, *Save the Videogame! The National Videogame Archive: Preservation, Supersession, and Obsolescence*, M/C J. (July 25, 2009), https://perma.cc/Y82U-RUQ5.

130. *See* JUUL, *supra* note 24, at 61 (criticizing the console-era account of video game history because "in practice video game design changed relatively little between console generations from Playstation2/Xbox and later").

131. *See* NICHOLS, *supra* note 62, at 146 (documenting resultant toxic waste); Richard Maxwell & Toby Miller, *"Warm and Stuffy": The Ecological Impact of Electronic Games*, *in* THE VIDEO GAME INDUSTRY: FORMATION, PRESENT STATE, AND FUTURE 179, 185 (Peter Zackariasson & Timothy L. Wilson eds., 2012) (documenting outsized impact on vulnerable youth and communities in the Global South).

132. *See* Dmitri Williams, *Structure and Competition in the U.S. Home Video Game Industry*, 4 INT'L J. ON MEDIA MGMT. 41, 46–48 (2002); Nieborg, *supra* note 127, at 82–83.

133. *See* Felan Parker, *Canonizing* Bioshock*: Cultural Value and the Prestige Game*, 12 GAMES & CULTURE 739, 739–40 (2015).

delegate production to in-house or external studios.[134] While these games implicate a range of IP issues, cloning disputes among AAA developers have become rare.[135] Independent studios—commonly known as "indie studios"—take a contrary approach.[136] Rejecting the prevailing trend of publisher control, indie studios instead play with alternative aesthetics, themes, and game mechanics.[137] The price of this freedom has been greater precarity, including vulnerability to a resurgence of cloning.

1. AAA Productions

Game publishers began using the AAA designation in the 1990s as games became big business.[138] Appropriately enough, publishers adapted the term from finance. As recent scholarship explains:

> Triple-A or AAA rank games refers to the bond credit classification system developed by the largest American credit rating agencies—Moody's, S&P, and Fitch. On their scale, the AAA is the highest mark, assigned for the safest bonds that have the strongest capacity to meet financial expectations . . . . [W]hat it essentially stands for are games with large teams, larger budgets, and the largest prospective returns, aimed as selling the highest possible number of final products to recoup the astronomical investment: games as *commodities*.[139]

One might have thought publishers would decline in importance beginning in the early 2000s as digital distribution eliminated the direct expenses of publishing and distributing physical game

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134. *See* Alexander Bernevega & Alex Gekker, *The Industry of Landlords: Exploring the Assetization of the Triple-A Game*, 17 GAMES & CULTURE 47, 51–53 (2022).

135. *See* Marie Dealessandri, *Clone Culture and Its Continuous Impact on Indie Developers*, GAMESINDUSTRY.BIZ (Feb. 18, 2022), https://perma.cc/XBS4-APPF.

136. For two of the most comprehensive treatments of the indie sector to date, see JUUL, *supra* note 24, and Felan Parker's meta-analysis of indie-game scholarship, FELAN PARKER, INDIE GAME STUDIES YEAR ELEVEN 1 (2014) https://perma.cc/QG5S-ULM4 (PDF).

137. *See* JUUL, *supra* note 24, at 12–14.

138. *See* Bernevega & Gekker, *supra* note 134, at 48.

139. *Id.* (emphasis in original) (internal citations omitted).

disks.[140] Publishers have retained their positions, however, because they hold the capital—and often the trademark rights—that developers require in order to be competitive in this environment.[141]

AAA game development entails significant production costs.[142] Studios employ hundreds of programmers and artists, many dedicated to crafting the increasingly photorealistic graphics and animation that gamers have come to expect, at an estimated running expense of $10,000 per month per employee over several years.[143] Demands have also increased with the growing popularity of "open worlds" in which players can freely explore large virtual areas.[144] Some open worlds now exceed 100 square miles of virtual space, requiring developers to populate every street, alley, and forest.[145] As a result, contemporary AAA games routinely cost $100 million or more for development alone.[146]

Marketing comprises the other major expense. It is not unusual for publishers to spend $30 million or more promoting a new release.[147] Lying between development costs and marketing costs are the sums paid to celebrities and sports leagues. Developers have enlisted A-list celebrities as voice

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140. *See* Williams, *supra* note 132, at 48–49.

141. *See* Andrew Grantham & Raphael Kaplinsky, *Getting the Measure of the Electronic Games Industry: Developers and the Management of Innovation*, 9 INT'L J. INNOVATION MGMT. 183, 191–92 (2005); Williams, *supra* note 132, at 47; Nieborg, *supra* note 127, at 104–05.

142. *See* Parker, *supra* note 133, at 740.

143. *See* JASON SCHREIER, BLOOD, SWEAT, AND PIXELS 3 (2017); Parker, *supra* note 133, at 740.

144. *See* Julie Muncy, *Open-World Games Are Changing the Way We Play*, WIRED (Dec. 3, 2015, 6:30 AM), https://perma.cc/4LEG-53EA.

145. *See id.* ("Expansive worlds are expensive and difficult to design, and as such tend to be filled with repetitive content: cookie-cutter tasks, collectibles, and encounters designed to fill a game space that might otherwise be nearly empty.").

146. As former Sony Interactive CEO Shawn Layden admitted: "[I]t's just not sustainable. Major triple-A games in the current generation go anywhere from $80 million to $150 million or more to build, and that's before marketing." Dean Takahashi, *Shawn Layden Interview: The Man with the Crash Bandicoot T-shirt*, VENTUREBEAT (June 23, 2020, 8:00 AM), https://perma.cc/64CX-QELQ.

147. *See, e.g.*, Karyne Levy, *The Most Expensive Video Games Ever Made*, INSIDER (July 7, 2014, 9:30 PM), https://perma.cc/CQB9-MHQM.

actors for game characters for over a decade, and we have entered an era where games model in-game characters after these performers. Notable examples include Gwen Stefani in *Band Hero*[148] and Keanu Reeves' high-profile involvement with *Cyberpunk 2077*.[149] These performers must be paid.[150] Likewise, developers of sports games pay hundreds of millions of dollars to leagues like the National Football League and Major League Baseball for licenses to depict their teams and trademarks.[151]

Another feature of AAA games is the continuous proliferation of sequels. Of the worldwide top 100 selling games of 2018, eighty were sequels, including all but one of the top twenty.[152] The outlier was fifth-placed *Spider-Man*, part of the larger Marvel franchise.[153] When industry participants speak of obtaining or developing "an IP," they generally mean trademarks and related character copyrights needed for sequels or spin-offs in an established franchise.[154] Publishers maintain ownership of these rights and license them to studios when the time comes for future installments.[155] In addition, publishers have expanded their markets by releasing their games across all current platforms and for PC. Gamers can purchase the eighteenth installment in the *Call of Duty* franchise, for

148. No Doubt v. Activision Publ'g, Inc., 122 Cal. Rptr. 3d 397, 401 (Cal. Ct. App. 2011).

149. *Keanu Reeves' Newest Role Is in the Video Game* Cyberpunk 2077. *Whoa*, NPR (Dec. 10, 2020, 3:56 PM), https://perma.cc/3TG5-F83W.

150. *See* Kemp Powers, *Videogames Give Actors Second Chance*, REUTERS (Jan. 31, 2008, 5:45 AM), https://perma.cc/48XP-RJHZ (reporting compensation of $500,000 or more "to do an hour's worth of voice work").

151. *See* NICHOLS, *supra* note 62, at 132–33 (documenting EA's $750 million deal "for the exclusive use of ESPN's logo and images" and similar NFL deals); Sarah E. Needleman, *NBA Inks Billion-Dollar Deal with Maker of 2K Videogame*, WALL ST. J. (Jan. 15, 2019, 4:58 PM), https://perma.cc/4JQ5-XTWG.

152. *Global Yearly Chart 2018*, VGCHARTZ, https://perma.cc/J25M-5QKB.

153. *Id.*

154. While the terminology may confound IP lawyers, insiders use "an IP" as shorthand for an existing franchise, fantasy world, or set of characters, whether from a game, film, or television series. *See, e.g.*, Sarah Impey, *Part 1: The Pros and Cons of Using a Licensed IP*, GAMEANALYTICS (Dec. 16, 2020), https://perma.cc/FW8N-8QLH; Ankit Jain & Richie Hecker, *To IP or Not To IP, That Is the Question*, TECHCRUNCH (Nov. 2, 2016, 9:00 PM), https://perma.cc/4W3R-MHGS.

155. *See* Nieborg, *supra* note 127, at 83.

example, for any of five current systems.[156] In parallel, console manufacturers have moved past the age of lockout codes and have become liberal in making third-party content, including indie games, available for purchase.[157]

While games have grown increasingly formulaic, AAA publishers have raced to pioneer new commercialization strategies. Historically, games were products.[158] Anyone who wanted to play *Super Mario Bros.* in 1985 could buy a copy; having paid once, they could play as often as they liked and access all game features. Many recent games have moved instead to the "software as service" model.[159] Rather than drawing revenues primarily from the sale of finished games, they seek to monetize each title indefinitely by making desirable features subscription based, selling downloadable content, or introducing microtransactions.[160] Two more infamous strategies are the sale of "loot boxes," transactions where the player pays for a randomized chance to obtain in-game goods, and the sale of "day one DLC," content already developed by release day that the player must nonetheless pay extra to access.[161]

Many players and critics have voiced dissatisfaction with current offerings. Some question overreliance on sequels and the perceived rent-seeking of new business models.[162] Others take issue with quality directly, complaining of an increase in bugs

156. *See Call of Duty: Black Ops Cold War Editions FAQ*, ACTIVISION SUPPORT (Dec. 21, 2020), https://perma.cc/R5V4-Y4PA; *see also* Barry Ip, *Technological, Content, and Market Convergence in the Games Industry*, 3 GAMES & CULTURE 199, 214 (2008).

157. *See* JUUL, *supra* note 24, at 124.

158. *See* Jason Schreier, *Top Video Game Companies Won't Stop Talking About 'Games as a Service'*, KOTAKU (May 30, 2017, 3:40 PM), https://perma.cc/D6S5-57DC.

159. *See id.*

160. *See id.*

161. *See generally* Allen Copenhaver & O. Hayden Griffin III, *White-Collar Criminality Within the Video Game Industry*, 16 GAMES & CULTURE 783 (2021); Kishan Mistry, *P(l)aying To Win: Loot Boxes, Microtransaction Monetization, and a Proposal for Self-Regulation in the Video Game Industry*, 71 RUTGERS U. L. REV. 537 (2018); Leon Y. Xiao et al., *Regulating Gambling-Like Video Game Loot Boxes: A Public Health Framework Comparing Industry Self-Regulation, Existing National Legal Approaches, and Other Potential Approaches*, CURRENT ADDICTION REP., no. 9, July 2022, at 163.

162. *See, e.g.*, Bernevega & Gekker, *supra* note 134, at 57; Mistry, *supra* note 161, at 541.

and a decline in enjoyability.[163] The decline in quality may be partly due to the industry's poor labor conditions. Game development has come under scrutiny for forcing "crunch" on workers, as in 80-hour workweeks without overtime pay.[164] Employees also face precarity as they often find themselves terminated once the crunch is over and a game is released.[165] Little wonder, then, that so many developers dream of becoming independent and forming their own studios.

2. Indie Games

Indie studios seek to break free from publishers. As with indie films, articulating what it means to be an indie studio is more art than science. Financial independence is only part of the story.[166] Contemporary indie developers also seek cultural independence as expressed through the rejection, subversion, and remixing of mainstream trends in gameplay and theme.[167] Interviews indicate that many indie developers seek financial independence in service of cultural independence—they define success as having the resources to continue making the games they want to make.[168]

Widespread diffusion of indie games has become possible through two business innovations. First, digital distribution through platforms like Steam has allowed indie studios to market to players without winning the approval of publishers or shelf space at brick-and-mortar retailers.[169] Second, crowdfunding platforms like Kickstarter have made it possible for indie studios to obtain upfront investments without

163. *See, e.g.*, Copenhaver & Griffin, *supra* note 161, at 788 ("[A]fter consumers have complained about misleading or broken games, governments and regulatory bodies have taken actions indicating that these institutions may be taking these issues more seriously."); Barry Ip & Gabriel Jacobs, *Quality in the Games Industry: An Analysis of Customer Perceptions*, 23 INT'L J. QUALITY & RELIABILITY MGMT. 531, 545 (2006).

164. *See generally* SCHREIER, *supra* note 143.

165. *See generally id.*

166. *See* JUUL, *supra* note 24, at 12–14, 90–91.

167. *Id.* at 12–14.

168. *See* Jennifer R. Whitson et al., *The Missing Producer: Rethinking Indie Cultural Production in Terms of Entrepreneurship, Relational Labour, and Sustainability*, 24 EUROPEAN J. CULTURAL STUD. 606, 611 (2018).

169. *See* JUUL, *supra* note 24, at 123–24.

publishers.[170] In practice, many players and studios treat crowdfunding pledges as pre-sales; donors often receive early access to the game or other perks such as thanks or cameo appearances in the game.[171]

Success for indies depends on marketing, albeit marketing of a different sort than in the AAA sector. Indie games strive to stand out not with the sleekest graphics, but by establishing themselves as more authentic than mainstream commercial offerings.[172] How can a game be validated as authentic? More concretely, how is a game to stand out amidst more than 8000 games released each year on Steam?[173] The answers lie in impressing the actors who perform cultural intermediation in this space—the individuals and institutions to whom the community looks for validation.[174]

To impress these intermediaries requires meeting community expectations regarding game design and acceptable copying.[175] The indie community craves innovation.[176] Sometimes this means experimenting with new art styles or themes within established genres;[177] other times, this means experimenting at the level of gameplay itself to introduce novel game mechanics.[178] Community norms permit copying within

170. *See* SCHREIER, *supra* note 143, at 6–7 (tracing the "crowdfunding revolution" to the 2009 campaign for *Double Fine Adventure*).

171. *See id.*

172. JUUL, *supra* note 24, at 33–34.

173. *See* J. Clement, *Number of Games Released on Steam Worldwide from 2004 to 2021*, STATISTA (June 7, 2021), https://perma.cc/FM9T-M78W.

174. *See, e.g.*, Parker et al., *supra* note 45, at 1955; Matthew E. Perks et al., *Autonomy, Integration, and the Work of Cultural Intermediation in Indie Games*, 6 MEDIA INDUS., no. 2, 2019, at 18, 23; Whitson et al., *supra* note 168, at 611.

175. *See* Perks et al., *supra* note 174, at 30.

176. *See* JUUL, *supra* note 24, at 6 ("Independent and experimental games contain a fundamental newness: they are about playing in new ways, solving new problems, solving old problems for new reasons, being free to ignore something we used to have to do, or framing video games in a new way . . . ."); Andreas Jahn-Sudmann, *Innovation NOT Opposition: The Logic of Distinction of Independent Games*, ELUDAMOS, Mar. 2008, at 5, 7–8 ("[I]ndependent game designers . . . pointedly work on alternative concepts on the configurational level.").

177. JUUL, *supra* note 24, at 42, 150.

178. *Id.* at 92, 187.

limits.[179] Game developers recognize their craft has improved over the past fifty years because they have had room to build on what has come before.[180] The implicit tradeoff for borrowing, however, is the expectation that the second comer will add something new and avoid copying any facet of the game in its entirety.[181] The second game must be distinct enough that players would not regard the two as direct substitutes.[182]

Indie games' aesthetics and subject matter also differ from those of AAA games. Indie studios lack the budgets to distinguish themselves by having the most photorealistic 3D graphics.[183] They have instead embraced "retro" aesthetics with intentionally pixelated graphics or experimental styles that evoke pre-digital art forms, like 2D cartoon animation or impressionist painting.[184] Many also experiment with themes and subject matter seldom featured in mainstream games. On one side are survival-horror games, designed to be emotionally unsettling;[185] on the other are those about working through emotions productively, for example, grappling with depression or overcoming enemies without violence.[186] Each design decision provides indie studios with a chance to innovate and to carve a distinctive niche in the market.

Despite these aspirations, the reality of indie development is harsh. Some games become breakout hits—*Minecraft* and *Stardew Valley* both originated with solo developers[187]—but countless others never find their audience. Moreover, indie developers do not face consistently better working conditions. Having eschewed traditional publishers, indie studios must

179. *See* Lies van Roessel & Christian Katzenbach, *Navigating the Grey Area: Game Production Between Inspiration and Imitation*, CONVERGENCE, Apr. 2020, at 403, 408.

180. *See id.* at 416.

181. *See id.* at 408.

182. *See id.*

183. JUUL, *supra* note 24, at 6.

184. *Id.* at 56.

185. *See* Katarzyna Marak, *Independent Horror Games Between 2010 and 2020: Selected Characteristic Features and Discernible Trends*, 29 IMAGES (SPECIAL ISSUE) 175, 182 (2021).

186. *See* JUUL, *supra* note 24, at 139–40, 160; Jahn-Sudmann, *supra* note 176, at 9.

187. *See* SCHREIER, *supra* note 143, at 79.

carry out the networking and logistical work a publisher would have otherwise handled. This administrative burden falls unevenly, often along gendered lines, and goes unappreciated.[188] Indie workers also face crunch. Although the deadlines are imposed by the reality of small studios' financial needs rather than by publishers, the burden of unhealthy and unrealistic work hours once again weighs on employees.[189]

Compounding this pressure, indie studios face real risks of copying. The rise of indie games coincided with the emergence of mobile gaming on devices like the iPhone.[190] Mobile developers such as Zynga attained notoriety in the early 2010s for copying games created by smaller developers.[191] The risk was especially acute for games with simple graphics and mechanics. Take the indie game *Threes!*. Its developers spent months perfecting its simple mechanics: the player combines numbered tiles on a four-by-four grid to create ever higher numbers.[192] They then released it for the nominal price of $1.99.[193] Days later, a 19-year-old student released *2048* with practically identical mechanics and layout:[194]

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188. *See* Perks et al., *supra* note 174, at 25–26 (observing that cultural intermediaries, especially women in the field, must perform "emotional labor management" as an aspect of their job); *see also* Laine Nooney, *The Uncredited: Work, Women, and the Making of the U.S. Computer Game Industry*, FEMINIST MEDIA HIST., Jan. 2020, at 119, 126–27 (documenting marginalization of women's administrative and emotional labor beginning with the earliest days of the computer gaming industry).

189. *See, e.g.*, Amanda Peticca-Harris et al., *The Perils of Project-Based Work: Attempting Resistance to Extreme Work Practices in Video Game Development*, 22 ORG. 570, 574 (2015); Whitson et al., *supra* note 168, at 613.

190. *See* Adrian Wright, *It's All About Games: Enterprise and Entrepreneurialism in Digital Games*, NEW TECH. WORK & EMP., Mar. 2015, at 32, 38.

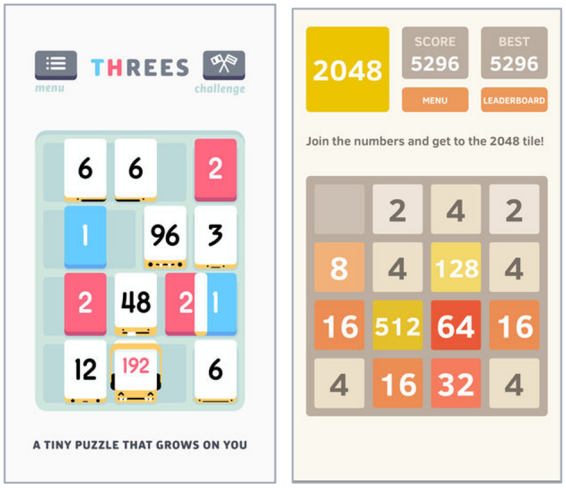
191. *See* Phillips, *supra* note 46, at 149. Copying popular games is not, however, exclusive to the mobile format, as witnessed in the wave of clones following the 2020 cross-platform indie hit *Hades*. *See, e.g.*, Ari Notis, Myth: Gods of Asgard *Sure Looks Like* Hades, KOTAKU (June 22, 2021, 3:45 AM), https://perma.cc/VY7M-8CJX.

192. *See* Kyle Vanhemert, *Design Is Why* 2048 *Sucks, and* Threes *Is a Masterpiece*, WIRED (May 7, 2014, 6:38 AM), https://perma.cc/7MM3-VNHG. As one analyst concludes: "Creating a game this minimal is hard." Ben Kuchera, *Why It Took a Year to Make, and Then Break Down, an Amazing Puzzle Game*, POLYGON (Feb. 6, 2014, 1:01 PM), https://perma.cc/QA5F-2MKL.

193. Kuchera, *supra* note 192.

194. *See* van Roessel & Katzenbach, *supra* note 179, at 412.

Figure 3: *Threes!* and *2048*



Threes!, left; *2048*, right

2048 eclipsed the original despite being regarded as inferior by insiders. The developer tweaked *2048* to be easier, which was less satisfying to game aficionados but more appealing to mass audiences.[195] The developer of *2048* also released the game for free and collected revenues from ads—at the time a novel business model—effectively dooming the game that inspired it.[196] Though copying was undeniable, litigation in these clone-heavy years was rare. One of the few successful anti-cloning suits from the mobile era came not from an indie studio but the makers of *Tetris*, as detailed below.

II. LIMITS OF COPYRIGHT FOR GAME DESIGN

The resurgence of clones in the context of indie games prompts a question: Why are these not open-and-shut cases of copyright infringement? We live in an age where copyright touches all aspects of our lives, especially our engagement with

195. *See* Vanhemert, *supra* note 192; van Roessel & Katzenbach, *supra* note 179, at 412.

196. *See* van Roessel & Katzenbach, *supra* note 179, at 413.

digital media.[197] In our experiences with video games and other software we are accustomed to overlapping IP and contractual restrictions via terms-of-use and end-user-license agreements.[198] These restrictions, however, are aimed at piracy and consumer behavior. Although copyright and related protections have obvious applications against bootlegging, different rules are at play when competitors copy one another to make new games. Copyright in the latter context leaves ample space for cloning.

A. Copyright Coverage

Copyrights can protect video game plotlines and characters as well as discrete game assets like art, music, and underlying code.[199] This means that a competitor cannot copy games wholesale nor directly replicate graphics and programming; making a clone generally requires starting from the ground up. Moreover, copyright sets limits on such duplication by precluding creation of derivative works that are "substantially similar."[200]

The prohibition on derivative works is nonetheless subject to major caveats. Copyright's goal of promoting creativity requires leaving room for subsequent creators.[201] Copyright thus denies protection entirely to ideas, systems, and methods of operation, and it limits coverage of stock characters and other necessary elements.[202] The collective impact of these limitations constrains game developers' ability to assert copyright against clones.

197. *See* BJ Ard, *More Property Rules Than Property? The Right To Exclude in Patent and Copyright*, 68 EMORY L.J. 685, 688 (2019) [hereinafter Ard, *More Property Rules*]; Ard, *Notice and Remedies*, *supra* note 33, at 322.

198. Ard, *Notice and Remedies*, *supra* note 33, at 334; Rub, *supra* note 33, at 726.

199. *See, e.g.*, MDY Indus., LLC v. Blizzard Ent., Inc., 629 F.3d 928, 952 (9th Cir. 2010) (recognizing copyright in game assets like "the roar a particular monster makes" or "a virtual image of that monster" (citation omitted)).

200. *See* Skidmore v. Led Zeppelin, 952 F.3d 1051, 1064 (9th Cir. 2020).

201. *See, e.g.*, Google LLC v. Oracle Am., 141 S. Ct. 1183, 1195 (2021).

202. *See id.* at 1196.

B. Character Copyright

Copyright protects original characters and plots.[203] The key criterion is whether the character has been "distinctively delineated."[204] Courts applying this standard have extended protection to characters from Mickey Mouse[205] to Rocky Balboa,[206] Batman,[207] and even the Batmobile (apart from Batman)[208] because they are distinct in appearance and personality.[209]

This standard has historically favored characters in visual media, like comic books and films, relative to those who appear only in prose.[210] Video game characters would seem to enjoy the same status. While not phrased in terms of character copyright, the *Pac-Man* case illustrates this point.[211] Though his personality was thin, Pac-Man was visually distinctive.[212] Competitors could not lawfully release a game "which made [its central character] substantially similar to PAC-MAN"—a mouth-shaped hero chased by "ghost monsters"—without copyright exposure.[213] Subsequent characters like Mario have become increasingly elaborate in their appearance and backstory and therefore even more squarely protectable.[214]

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203. *See* 1 NIMMER ON COPYRIGHT §§ 2.09[G], 2.12[A][1].

204. *Id.* § 2.12.

205. Walt Disney Prods. v. Air Pirates, 581 F.2d 751, 757–58 (9th Cir. 1978).

206. Anderson v. Stallone, 11 U.S.P.Q.2d 1161, 1166 (C.D. Cal. 1989).

207. DC Comics v. Reel Fantasy, 696 F.2d 24, 27 (2d Cir. 1982).

208. DC Comics v. Towle, 802 F.3d 1012, 1024–25 (9th Cir. 2015).

209. *See* Warner Bros., Inc. v. Am. Broad. Cos., 720 F.2d 231, 241 (2d Cir. 1983) ("In determining whether a character in a second work infringes a cartoon character, courts have generally considered not only the visual resemblance but also the totality of the characters' attributes and traits.").

210. *See Walt Disney Prods.*, 581 F.2d at 755 ("[I]t is difficult to delineate distinctively a literary character.").

211. *See* Atari, Inc. v. N. Am. Philips Consumer Elecs. Corp., 672 F.2d 607, 617–18 (7th Cir. 1982); *see supra* notes 83–91 and accompanying text.

212. *See Atari*, 672 F.2d at 617.

213. *Id.* at 617–18.

214. Characters embodying common tropes may nonetheless be protected only against literal copying. *See infra* Part II.E. Nintendo thus prevailed when Universal asserted that Nintendo's gorilla Donkey Kong infringed King Kong's copyright. Universal City Studios, Inc. v. Nintendo Co., 746 F.2d 112, 120 (2d Cir. 1984). Nintendo subsequently named a new, now-popular character

Copyright likewise extends to specific plotlines, especially the right to create sequels. Courts have consistently found unauthorized sequels in literature and visual media to be infringing.[215] At least one video game case has reached the same conclusion.[216] In a dispute over the first-person shooter *Duke Nukem 3D*, the Ninth Circuit found infringement likely when an unauthorized third party released new playable maps:

> A copyright owner holds the right to create sequels, and the stories told in the N/I MAP files are surely sequels, telling new (though somewhat repetitive) tales of Duke's fabulous adventures. A book about Duke Nukem would infringe for the same reason, even if it contained no pictures.[217]

Plot protection beyond sequels is more limited. While many clones are so similar that copying is undeniable, this replication only becomes actionable when it targets protected elements like specific characters and plots.[218] Similarities are non-actionable when they flow from the same basic idea or underlying tropes.[219]

C. Idea-Expression Dichotomy

The idea-expression dichotomy is a bedrock principle establishing that copyright covers only the expression of an idea, not the idea itself. This principle drove the court's reasoning in the *Asteroids-Meteors* case.[220] As the court observed, the games shared at least twenty-two "similar or identical" design features and "[i]t seem[ed] clear that defendants based their game on plaintiff's copyrighted game."[221] The court nonetheless held that

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"Kirby" in honor of attorney John Kirby, who represented Nintendo against Universal. Tim Turi, *Miyamoto Talks Wii U,* Zelda*, and Nintendo's Past*, GAME INFORMER (June 17, 2011, 11:00 AM), https://perma.cc/37FL-ZBJA.

215. *See, e.g.*, Salinger v. Colting, 607 F.3d 68, 83 n.11 (2d Cir. 2010) (finding infringement likely in an unauthorized *Catcher in the Rye* sequel regardless of "whether Salinger own[ed] a valid copyright in the [main] character").

216. *See generally* Micro Star v. Formgen Inc., 154 F.3d 1107 (9th Cir. 1998).

217. *Id.* at 1112 (citation omitted).

218. *See* 4 NIMMER ON COPYRIGHT § 13.03[B][2] (2022).

219. *See id.*

220. *See* Atari, Inc. v. Amusement World, Inc., 547 F. Supp. 222, 230 (D. Md. 1981).

221. *Id.* at 224–25, 230.

there was no infringement because the similarities resulted from both games starting with "the *idea* of a game involving a spaceship combatting space rocks."[222]

Some specific game details may have crossed the line from idea into expression, in which case the idea-expression dichotomy would not have applied directly. To bridge the gap, the court also invoked the merger doctrine: "[W]hen an idea is such that *any* use of that idea *necessarily* involves certain forms of expression, one may not copyright those forms of expression, because to do so would be in effect to copyright the underlying idea."[223] Accordingly, even though many elements of the two games' expression were the same, there was no infringement because "[t]here are certain forms of expression that one must necessarily use in designing a video game in which a player fights his way through space rocks and enemy spaceships."[224] The idea-expression dichotomy and the merger doctrine also implicate gameplay,[225] though many aspects of gameplay are better understood from the perspective of copyright's systems-methods exclusion.

D. Systems-Methods Exclusion

Copyright experts have historically been skeptical that copyright protects games.[226] In caselaw, these doubts have often found expression in terms of the idea-expression dichotomy, conceptualizing game rules as unprotectable "ideas" and ostensibly expressive game elements as unprotectable because they have "merged" with those ideas.[227] However, the

222. *Atari, Inc.*, 547 F. Supp. at 229 (emphasis added).

223. *Id.* at 228 (emphasis in original).

224. *Id.* at 229.

225. *See, e.g.*, Capcom U.S.A., Inc. v. Data E. Corp., No. C 93-3259, 1994 WL 1751482, at *7–8 (N.D. Cal. Mar. 16, 1994) (excluding "control sequences" due to merger of idea and expression).

226. *See, e.g.*, 1 NIMMER ON COPYRIGHT § 2A.14 (2022); Bruce E. Boyden, *Games and Other Uncopyrightable Systems*, 18 GEO. MASON L. REV. 439, 440 (2011); Seaman & Tran, *supra* note 29, at 1634.

227. *See, e.g.*, Data E. U.S., Inc. v. Epyx, Inc., 862 F.2d 204, 209 (9th Cir. 1988) (finding the various mechanical elements of a karate game, such as types of kicks and punches, merge with the idea of a martial arts combat game therefore making the mechanics inseparable from the idea); *Atari, Inc.*, 547 F. Supp. at 229.

idea-expression dichotomy has engendered confusion over where to draw the line, particularly for software.[228] As Judge Learned Hand once observed, "Nobody has ever been able to fix that boundary, and nobody ever can."[229] This confusion could be avoided by attending to another limiting doctrine in copyright: the exclusion of coverage for functional elements including any "system" or "method of operation."[230]

1. Scope of the Exclusion

Many cases where courts invoked the idea-expression dichotomy are better understood as exclusion-of-method cases. Both principles are encapsulated in section 102(b) of the Copyright Act, which excludes any "idea," "system," or "method of operation" from copyright protection.[231] Likewise, both principles stem from the foundational case *Baker v. Selden*.[232] Although *Baker* is credited with introducing the idea-expression dichotomy,[233] the "idea" in *Baker* was an approach to accounting, specifically, "a system of book-keeping."[234] The Court's rationale for denying copyright did not depend on the metaphysical distinction between "idea" and "expression"—the opinion did not even use the word "idea" in this context.[235] Instead, the Court held that such a system "is the province of letters-patent, not copyright."[236] Less archaically, it held that copyright is not

228. *See* Pamela Samuelson, *Why Copyright Law Excludes Systems and Processes from the Scope of Its Protection*, 85 TEX. L. REV. 1921, 1976–77 (2007).

229. Nichols v. Universal Pictures, Corp., 45 F.2d 119, 121 (2d Cir. 1930). *But see* Bruce E. Boyden, *Learned Hand: You're Reading Him Wrong*, MARQ. UNIV. L. SCH.: MARQ. UNIV. L. SCH. FAC. BLOG (Apr. 13, 2018), https://perma.cc/FQH2-UVD3 ("Hand saw the inexpressible nature of the test for infringement as, not a problem, but rather an indication it was a task tailor-made for judicial discretion.").

230. *See* 17 U.S.C. § 102(b).

231. *Id.*

232. 101 U.S. 99 (1879).

233. *See id.* at 103; 1 NIMMER ON COPYRIGHT § 2A.04(A)(2) (2022). *But see* Samuelson, *supra* note 228, at 1924 (questioning this common conception).

234. *Baker*, 101 U.S. at 100.

235. Samuelson, *supra* note 228, at 1226 ("[T]he Supreme Court's decision in *Baker* used the word 'ideas' only twice, and in neither context was the Court saying that copyright did not protect abstract ideas.").

236. *Baker*, 101 U.S. at 102.

meant to protect functional systems or similarly utilitarian subject matter; these must be protected by patent or not at all.[237] This ensures more rigorous evaluation.[238] It also pares the term of protection down from copyright's life of the author plus seventy years to patent's more modest twenty years total.[239]

Subsequent decisions likewise exclude methods and systems even though many have articulated their holdings in terms of the idea-expression dichotomy and merger.[240] Take *Morrissey v. Proctor & Gamble Co.*[241] This case dealt with a sweepstakes—a game of chance.[242] The plaintiff sued the defendant for "copying, almost precisely" the published rules for its competition.[243] The court found that "the substance of the contest was not copyrightable," citing *Baker*.[244] But the opinion was ambiguous regarding the precise doctrine at work. For decades, the conventional understanding was that *Morrissey* stood for the merger doctrine, which applies "when there is only one or but a few ways of expressing an idea."[245] Revisiting the case and the import of *Baker* opens another reading: sweepstakes rules are uncopyrightable because they specify a method for operating a system.

The same logic extends to non-sweepstakes games, whether players operate them manually (board games) or digitally (video games). Indeed, one introductory text for game designers defines games as "*machines for playing with*," and game rules as "mechanics" to "be assembled into systems."[246] Copyright's systems-methods exclusion thus prevents copyright owners from monopolizing game mechanics through a backdoor

237. *Id.*

238. *Id.*

239. *See* 17 U.S.C. § 302(a) (copyright duration); 35 U.S.C. § 154(2) (patent term). Some video games constitute "works made for hire," in which case copyright instead extends 95 years from publication. 17 U.S.C. § 302(c).

240. *See* Samuelson, *supra* note 228, at 1942.

241. 379 F.2d 675 (1st Cir. 1967).

242. *Id.* at 676.

243. *Id.*

244. *Id.* at 678.

245. PETER S. MENELL ET AL., 2 INTELLECTUAL PROPERTY IN THE NEW TECHNOLOGICAL AGE: 2020, 576 (2020).

246. ROBERT ZUBEK, ELEMENTS OF GAME DESIGN 2, 5 (2020) (emphasis in original).

patent.[247] As one scholar argues in the context of games, it also precludes the copyright owner from claiming creative efforts properly attributed to the player.[248] And, again, it avoids the confusion of trying to distinguish idea from expression.[249]

2. The *Tetris* Decision

Tetris Holding, LLC v. Xio Interactive, Inc.[250] merits discussion because it is the most significant example of a court recognizing copyright protection in game mechanics.[251] Its conclusion that practically verbatim copying may constitute infringement is defensible, but its analysis of game mechanics[252] is flawed.[253] The copyright owner for the famous 1984 puzzle

247. *See* Baker v. Selden, 101 U.S. 99, 102 (1879).

248. *See* Boyden, *supra* note 226, at 442 ("Games . . . do not communicate expression to the players so much as provide a forum for the gameplay experience to occur."); *see also* BOGOST, *supra* note 96, at ix (arguing the expressive form distinctive to games is "*procedural rhetoric*, the art of persuasion through rule-based representations and interactions" (emphasis in original)).

249. *See* Samuelson, *supra* note 228, at 1974–77.

250. 863 F. Supp. 2d 394 (D.N.J. 2012).

251. *See* John Kuehl, *Video Games and Intellectual Property: Similarities, Differences, and a New Approach to Protection*, 7 CYBARIS 313, 329 (2016).

252. *Tetris Holding*, 863 F. Supp. 2d at 411–15.

253. Notwithstanding the general trend against copyright enforcement with respect to game mechanics, the risk of another decision like *Tetris Holding* may give copyists pause. *See* Kuehl, *supra* note 251, at 332 ("[*Tetris Holding*] was also viewed as a possible killing blow to 'knock-off' games: improvements in technology significantly expand the creative limits of game developers, developers of cloned video games may have diminishing success in arguing that their wholesale copying is permissible because expression has merged with idea." (citation omitted)). Yet remarkably few cases have followed the same logic or expressly rebutted *Tetris Holding* in the decade since that decision. The closest to follow it was the *Spry Fox* case, decided the same year, where the court denied a motion to dismiss litigation involving *Triple Town* and *Yeti Town*, two games with similar underlying mechanics; it settled without setting precedent. *See* Dean, *supra* note 26, at 1267–68 ("Although *Spry Fox* only came up on a motion to dismiss, the case is significant for the fact that, unlike the identical copying in *Tetris Holding*, the court found substantial similarity plausible even though *Yeti Town*'s artwork and sound elements were readily distinguishable from *Triple Town*'s."); Spry Fox LLC v. LOLApps, No. 2:12-cv-00147, 2012 U.S. Dist. LEXIS 153863, at *22 (W.D. Wash. Sept. 18, 2012). In my discussions with defenders and critics of *Tetris Holding*, the one point of common ground was surprise that it did not set off decisions either following or expressly rejecting it.

game *Tetris* sued the maker of the mobile game *Mino*.[254] The defendant's game was practically identical in gameplay and shared similarities beyond those dictated by game rules.[255] The court observed, for example, that the defendant chose to use "virtually identical" colors for pieces of the same shape, and that "shading and gradation of color are used in substantially similar ways to suggest light is being cast on the pieces."[256] The opinion included side-by-side comparisons:

Figure 4: Illustration from *Tetris Holding v. Xio*

Tetris pieces on left of each pair; *Mino* pieces on right

Other visual similarities included the pieces changing color once they locked in place and the gameboard filling with squares from top to bottom upon game over.[257] The court ruled for the plaintiff based on near-total copying—the court could discern no meaningful innovation in the defendant's copying of *Tetris*'s gameplay and stylistic choices.[258]

The court's analysis of gameplay elements within the idea-expression framework was nonetheless problematic. It defined the high-level "idea of *Tetris*" as "fitting different shaped pieces together to form complete lines," and treated any decisions implementing the idea as expression.[259] It found, for

254. *Tetris Holding*, 863 F. Supp. 2d at 396–97.

255. *See id.* at 410.

256. *Id.* at 410, 411 n.11.

257. *See id.* at 413.

258. *See id.* at 410–11, 416 (finding both games styles and gameplay nearly indistinguishable). Finding liability against copying without meaningful innovation also aligns with game-developer norms, which permit copying only if the copyist adds something new. *See supra* notes 175–182 and accompanying text.

259. *Tetris Holding*, 863 F. Supp. 2d at 411. A later decision dealing with a card game drew a more defensible line, extending protection to the artwork and characters for a game but excluding it as to the special abilities and other game mechanics associated with each character. *See generally* DaVinci Editrice S.R.L. v. Ziko Games, LLC, 183 F. Supp. 3d 820 (S.D. Tex. 2016).

example, that *Tetris*'s choice of shapes was protectable expression.[260] Likewise, it determined that *Tetris*'s use of a playing field taller than it was wide was arguably an idea, but *Tetris*'s use of a playing field specifically twenty units high by ten units wide was expression.[261] One could contest the court's findings on each element, but the core difficulty for this mode of analysis is the lack of clear parameters for setting the correct level of abstraction for distinguishing idea from expression.[262]

Shifting the frame to ask instead whether a particular design choice was necessary to carry out the system or method of the game would clarify the analysis. The interface between patent and copyright is instructive: copyright does not cover elements that constitute patentable subject matter[263] and issuance of a patent for a system suggests it is functional and should be excluded from copyright.[264] This presents obstacles for puzzle games like *Tetris* because patents have been granted on puzzles and methods for solving them.[265] *Tetris Holding* itself references a patent for gameplay in the puzzle game *Dr. Mario*.[266] Although the court leveraged this patent to argue there are other ways to express the rules of *Tetris*, the better argument is that the patent on similar gameplay elements suggests that analogous elements in *Tetris* should be excluded as functional.

Prior litigation involving non-digital puzzles bolsters the conclusion. The most famous puzzle patent is the *Nichols* patent for a 2x2 puzzle cube and a method for solving it,[267] which the inventor successfully asserted against the makers of the

260. *See Tetris Holding*, 863 F. Supp. 2d at 411.

261. *See id.* at 413.

262. *See generally* Margot E. Kaminski & Guy A. Rub, *Copyright's Framing Problem*, 64 UCLA L. REV. 1102 (2017).

263. *See* 1 NIMMER ON COPYRIGHT § 2A.07[D][4][c][iii] (2022).

264. *See id.* § 2A.07[D][5] (explaining "to the extent that a utility patent covers a given production, that fact alone indicates that it is functional, and hence outside the boundaries of vindication under copyright laws"); Pamela Samuelson, *Strategies for Discerning the Boundaries of Copyright and Patent Protections*, 92 NOTRE DAME L. REV. 1493, 1531 (2017).

265. *See, e.g.*, U.S. Patent No. 3,655,201 (filed Mar. 4, 1970).

266. *See* Tetris Holding, LLC v. Xio Interactive, Inc., 863 F. Supp. 2d 394, 412 (D.N.J. 2012) (referencing U.S. Patent No. 5,265,888 (filed Feb. 19, 1993)).

267. *See* U.S. Patent No. 3,655,201 (filed Mar. 4, 1970).

Rubik's cube.[268] The original 3x3 Rubik's cube was held non-infringing—the change in dimensions meant the puzzle and methods for solving it differed from those claimed in the patent.[269] The lesser-known Rubik's Pocket Cube, however, was held to infringe because it embodied the 2x2 design.[270] Patent availability for those elements of a puzzle that determine the method of play and viable solutions indicates these elements fall outside copyright.[271]

Bringing this logic back to *Tetris Holding*, asking whether something like a twenty by ten playing field is an "abstract idea"[272] is needlessly metaphysical. Asking instead whether those dimensions impact the method of play or potential solutions makes the inquiry concrete. The fact that different dimensions would require different strategies suggests these mechanics are functional and therefore non-copyrightable: a taller playing field would allow more blocks to pile up, making the puzzle easier to solve. A narrower playing field would allow the player to complete the puzzle with fewer blocks but would also require more careful planning, changing the method of play even more fundamentally. *Tetris*'s selection of playing pieces falls outside copyright for similar reasons. The game utilizes all possible combinations of four blocks connected end to end.[273] To remove or add any shapes would change the nature of the puzzle and the methods for solving it.[274]

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268. *See* Moleculon Rsch. Corp. v. CBS, Inc., 793 F.2d 1261, 1273 (Fed. Cir. 1986).

269. *See id.* at 1271–72.

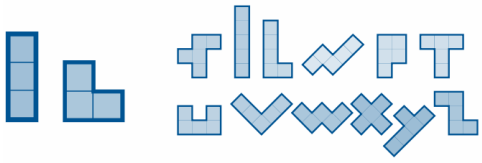
270. *See id.* at 1272.

271. *See supra* note 264; *see also* Laureyssens v. Idea Grp., Inc., 964 F.2d 131, 142 (2d Cir. 1992) (observing that defendant's change to the puzzle design "result[ed] in a qualitatively different challenge to the puzzler").

272. *See supra* note 261 and accompanying text.

273. Eric Adler, *A Game of Clones: Video Game Litigation Illustrated*, PNW STARTUP LAW. (July 10, 2014), https://perma.cc/SL36-TE65.

274. As one observer explained, albeit in the language of the idea-expression dichotomy:



E. Scènes à Faire

Scènes à faire shields video games from liability for covering typical game subject matter because it precludes copyright owners from suing over the use of tropes and standard conventions of a genre.[275] It establishes that no film studio can claim the exclusive right to produce Westerns in which good guys wear white hats and bad guys wear black hats, just as no game developer can stop competitors from including crosses, stakes, or baroque costuming in a vampire-hunter game.[276] The doctrine also applies to technical or stylistic conventions—in the *Pac-Man* case, for example, the court refused to find infringement for copying "standard game devices" like a maze, scoring table, or the use of dots to score points.[277]

Courts often use scènes à faire to deny infringement in games depicting similar real-world activities. In *Data East v. Epyx*,[278] for example, the Ninth Circuit dismissed the similarities between two karate-fighting games because "the visual depiction of karate matches is subject to the constraints inherent in the sport of karate itself."[279] The *Street Fighter II* case extended the logic further: the copyright owner could not assert protection over stereotypical martial arts garb or special moves regardless of whether they appeared in the real world or

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> [T]he 7 basic Tetris shapes seem more like idea than expression. There are only 7 tetrominos. Selecting all of them seems like embodiment of the *idea* of tetrominos. Imagine a falling puzzle game with trominos (left) or pentominos (right). Sure it's possible, but would you really want to play it?

Id. (emphasis in original).

275. *See* Apple Comput., Inc. v. Microsoft Corp., 35 F.3d 1435, 1444 (9th Cir. 1994) ("[W]hen similar features in a videogame are as a practical matter indispensable, or at least standard, in the treatment of a given [idea], they are treated like ideas and are therefore not protected by copyright." (internal quotation omitted)).

276. *Cf.* Davis v. Walt Disney Co., 393 F. Supp. 2d 839, 847 (D. Minn. 2005) (identifying "superhero capes, leotards, masks, chest emblems, boots, belts, and flared gloves" as stock elements), *aff'd on other grounds*, 430 F.3d 901 (8th Cir. 2005).

277. Atari, Inc. v. N. Am. Philips Consumer Elecs., 672 F.2d 607, 617 (7th Cir. 1982); 4 NIMMER ON COPYRIGHT § 13.03[B][4] (2022) (explaining that "certain patterns and situations are bound to recur" across different works because there are "'incidents, characters or settings which are as a practical matter indispensable, or at least standard, in the treatment of a given topic").

278. 862 F.2d 204 (9th Cir. 1988).

279. *See id.* at 209.

only in comic books.[280] Similar results followed in litigation involving golf arcade games, where the court invoked scènes à faire to excuse similarities inherent in depicting the same underlying sport, in the use of standard menu screens, and even in both games' inclusion of commentary to "mimic condescending real television golf announcers."[281]

Many conventions could arguably be excluded as ideas or game rules; indeed, when courts exclude an element for being "indispensable" they seldom clarify whether they mean indispensable in the sense of merger, finding there are only so many ways to express the idea, or scènes à faire, finding the elements standard for the genre.[282] Scènes à faire is nonetheless useful because it provides a mechanism for excluding these elements without the line-drawing problems of the idea-expression dichotomy.[283]

F. Fair Use

Fair use is the best-known and mostly widely discussed doctrine in copyright.[284] It requires balancing four factors: (i) the purpose and character of the use, (ii) the nature of the copyrighted work, (iii) the amount and substantiality used, and (iv) the effect on the potential market for the work.[285] Fair use was instrumental in the reverse engineering of video game

280. Capcom U.S.A., Inc. v. Data E. Corp., No. C 93-3259, 1994 WL 1751482, at *13 (N.D. Cal. Mar. 16, 1994) ("[T]he Court finds that even a majority of the moves that are allegedly special and fanciful are ultimately unprotectable either because they are unoriginal scenes-a-faire or have not actually been copied by Data East."); *see supra* notes 119–123 and accompanying text.

281. Incredible Techs., Inc. v. Virtual Techs., Inc., 400 F.3d 1007, 1015 (7th Cir. 2005).

282. *See, e.g.*, *Data East*, 862 F.2d at 209 (introducing both doctrines before finding similarities between two karate games "inseparable from, indispensable to, or even standard treatment of the *idea* of the karate sport" (emphasis in original)); Atari, Inc. v. Amusement World, 547 F. Supp. 222, 228–29 (D. Md. 1981) (introducing both doctrines before concluding "these similarities are inevitable").

283. *See supra* Part II.C.

284. *See* 4 NIMMER ON COPYRIGHT § 13.05 (2022) ("[I]ndeed, more law review articles are published about fair use than cases actually adjudicating the subject!").

285. 17 U.S.C. § 107.

consoles to create compatible games.[286] Despite its prominence elsewhere in copyright, however, fair use has not been central to cloning disputes.

Fair use would not assist defendants in most cloning cases because courts tend to analyze the four factors through the lens of transformative use.[287] Where the work is transformative—meaning it "adds something new, with a further purpose or character, altering the first with new expression, meaning, or message"—courts tend to excuse such use as fair.[288] While transformativeness is not strictly required to establish fair use, courts have become reluctant to find fair use without it.[289]

Transformativeness presents an obstacle for clones because the act of cloning implies a lack of transformative purpose. Developers create these games for the same purpose as the originals, namely, to provide entertainment for players who enjoy that type of game.[290] Unfortunately for these imitators, transformation of purpose is the most essential factor for establishing transformative use.[291] In relevant caselaw, fair use has been denied in many cases dealing with reference guides or similar add-ons for popular television shows or movies because

286. *See generally* Sony Comput. Ent., Inc. v. Connectix, Corp., 203 F.3d 596 (9th Cir. 2000); Sega Enters. Ltd. v. Accolade, Inc., 977 F.2d 1510 (9th Cir. 1992). *See also* supra notes 110–118 accompanying text.

287. *See* Neil Weinstock Netanel, *Making Sense of Fair Use*, 15 LEWIS & CLARK L. REV. 715, 734 (2011); 4 NIMMER ON COPYRIGHT § 13.05[A][1][b] (2022).

288. *See* Campbell v. Acuff-Rose Music, 510 U.S. 569, 579 (1994).

289. Empirical analysis of all decisions discussing transformativeness shows that defendants prevailed in fewer than 10% of decisions where the use was found non-transformative. Clark D. Asay et al., *Is Transformative Use Eating the World?*, 61 B.C. L. REV. 905, 942 (2020).

290. Instances where the copyist achieves this goal while also providing transformation are rare but not unheard of. For example, 2013's *Organ Trail* borrows extensively from the classic educational game *Oregon Trail*, complete with the risk of cholera or dysentery. *See* Jim Sterling, *Review: The Organ Trail*, DESTRUCTOID (Apr. 2, 2013), https://perma.cc/P2FV-9ZFH. The difference in this well-regarded parody is that the westward journey is by station wagon and the goal is not homesteading but rather escaping zombies. *Id.*

291. *See* 4 NIMMER ON COPYRIGHT § 13.05[B] (2022).

creating new works for the purpose of entertaining the same fan base was deemed non-transformative.[292]

III. PROTECTION BEYOND COPYRIGHT

Copyright is not the only IP regime one might assert against clones. Given copyright's exclusion of methods and systems, it is natural to turn toward patent because functional inventions are the core of the utility-patent regime. But doctrinal and practical hurdles limit patent's applicability to video games. Trademark law is also worth considering. Indeed, when participants in the industry talk about "the IP" for a game, they typically mean the trademarks and related rights necessary to produce sequels within an established franchise.[293] Video game publishers take great care to protect and cultivate these trademarks. Trademark law does not, however, prevent competitors from making substantively similar games. The use of trademarks and related rights to police the boundary of existing franchises is thus significant on its own terms, but not as an obstacle to cloning.

A. Gameplay Patents

Patentable subject matter includes any "process, machine, manufacture, or composition of matter" that meets the requirements of patentability.[294] Developers could, in theory, seek patents for uncopyrightable gameplay methods. Indeed, many IP scholars have argued copyright's functionality exclusion is meant to channel rights-seekers into the patent

292. *See, e.g.*, Castle Rock Ent. v. Carol Publ'g Grp., 150 F.3d 132, 142 (2d Cir. 1998) (concluding *Seinfeld* trivia book's "purpose" was "to repackage *Seinfeld* to entertain *Seinfeld* viewers"); Twin Peaks Prods. v. Publ'ns Int'l, 996 F.2d 1366, 1375–76 (2d Cir. 1993) (finding no transformative purpose in an unauthorized *Twin Peaks* guidebook); Toho Co. v. William Morrow & Co., 33 F. Supp. 2d 1206, 1217 (C.D. Cal. 1998) (finding no transformative purpose in an unauthorized *Godzilla* guidebook).

293. *See supra* note 154 and accompanying text.

294. 35 U.S.C. § 101.

system.[295] Whoever obtained that patent would hold exclusive rights to the claimed gameplay method for twenty years.[296]

Patents are common in the industry, but most cover technical aspects relating to hardware or system performance.[297] While some game mechanics are patented—like the "falling object" gameplay of *Dr. Mario*[298]—patents in gameplay are rare and have seldom been asserted against clones. The major outlier, Magnavox's litigation against "table tennis" clones like *Pong*, was a product of its time.[299] As an electronics manufacturer in the 1970s, Magnavox would have been more familiar with patent than copyright, and the litigation commenced before it was established that copyright applied to software (generally)[300] or video games (specifically).[301] Few gameplay patents have been asserted in the fifty years since.[302] While the absence of

295. *See, e.g.*, Viva R. Moffat, *The Copyright/Patent Boundary*, 48 U. RICH. L. REV. 611, 615 (2014) (explaining how IP law's functionality exclusions perform a channeling function).

296. *See* 35 U.S.C. § 154(a)(2).

297. *See, e.g.*, McRO, Inc. v. Bandai Namco Games Am. Inc., 837 F.3d 1299, 1303–08 (Fed. Cir. 2016) (involving patents for automatically synchronizing facial expressions in video games); Atari Corp. v. Sega of Am., Inc., 869 F. Supp. 783, 786–88 (N.D. Cal. 1994) (involving a patent on horizontal scrolling with minimal interruption of memory access).

298. U.S. Patent No. 5,265,888 (filed Feb. 19, 1993); *see supra* note 266 and accompanying text; *see also* U.S. Patent No. 5,390,937 (filed Mar. 16, 1992) (patenting *Final Fantasy*'s active time battle system); U.S. Patent No. 6,935,954 (filed Dec. 14, 2000) (patenting a "Sanity System for Video Game"); U.S. Patent No. 7,402,104 (filed Sept. 20, 2004) (patenting rolling objects into a ball in *Katamari Damacy*); U.S. Patent No. 10,926,179 (filed Mar. 25, 2016) (patenting the "nemesis system" for customized antagonists in *Middle Earth: Shadow Over Mordor*).

299. Magnavox Co. v. Chi. Dynamic Indus., 201 U.S.P.Q. 25, 27 (N.D. Ill. 1977); *see supra* notes 69–72 and accompanying text.

300. *See* Computer Software Copyright Act of 1980, Pub. L. No. 96-517, § 101, 94 Stat. 3015, 3028 (1980) (adding "computer program" to the copyright laws in 17 U.S.C. § 101); Google LLC v. Oracle Am., Inc., 141 S. Ct. 1183, 1199 (2021) ("By defining computer programs in § 101, Congress chose to place this subject matter within the copyright regime.").

301. *See* Atari Games Corp. v. Oman, 979 F.2d 242, 247 (D.C. Cir. 1992) (reversing the Copyright Office's refusal to register a video game).

302. One case that surprised developers involved Sega's patent on the gameplay of *Crazy Taxi*, which covered features like virtual pedestrians who dodge oncoming cars and floating directional arrows pointing to the next objective. *See* U.S. Patent No. 6,200,138 (filed Oct. 30, 1998). Sega sued when

decisions leaves few cases to analyze, patent doctrine and practical obstacles explain why obtaining and enforcing gameplay patents would be difficult.

1. Doctrinal Barriers

Gameplay methods face difficulty meeting two patentability requirements. The first is non-obviousness.[303] A developer seeking a patent must do more than create something new.[304] The developer must invent something not obvious to the "person having ordinary skill in the art," in this case the typical game designer.[305] In practice, courts often look to whether it would have occurred to the designer to combine elements in the prior art—pre-existing inventions—to arrive at the invention claimed in the patent application.[306]

For games, this would mean determining whether the typical designer would have thought to combine features from prior games to arrive at a particular game mechanic.[307] If so, the method would be deemed obvious and therefore unpatentable.[308] The problem is that so many titles are iterative improvements on what has already been done.[309] Predictable permutations of mechanics from prior games are thus barred from patenting.

The second hurdle is patentable subject matter. Patents do not cover "abstract ideas."[310] The concept is elusive in patent—much like in copyright—and courts continue to puzzle over the Supreme Court's latest guidance in *Alice*.[311] Litigation

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these features appeared in a Simpsons-themed clone. *See Case Analysis:* Sega v. Fox, PATENTARCADE (July 12, 2010), https://perma.cc/AB44-3TXC. The case caught attention because suits like this are rare, and it generated no precedent because it settled before trial. *See id.*

303. 35 U.S.C. § 103.

304. *See id.* § 102(a).

305. *Id.* § 103.

306. *See* KSR Int'l Co. v. Teleflex, Inc., 550 U.S. 398, 416 (2007).

307. *See id.* at 418.

308. *See id.* at 417.

309. *See supra* note 180 and accompanying text.

310. Alice Corp. Pty. v. CLS Bank Int'l, 573 U.S. 208, 216 (2014).

311. 573 U.S. at 216–17; *see* Amdocs (Isr.) Ltd. v. Openet Telecom, Inc., 841 F.3d 1288, 1294 (Fed. Cir. 2016) ("The problem with articulating a single, universal definition of 'abstract idea' is that it is difficult to fashion a workable

following *Alice* has, however, resulted in the invalidation of patents directed at gameplay involving standard card decks or dice for merely implementing "abstract rulesets."[312]

Of course, filing for patents requires assistance from attorneys regardless of subject matter. The arcane nature of the abstract-ideas questions surrounding game rules compounds this need, foregrounding a set of practical obstacles.

2. Practical Concerns

The absence of patents from cloning disputes also stems from practical considerations. Patenting is expensive and takes years: the average cost is over $20,000 and patents may not issue for twenty-three months.[313] This arrangement is especially unfortunate for indie developers because, even assuming that indie studios are more innovative and therefore likely to develop non-obvious and therefore patent-eligible mechanics, they are less likely to have resources for patenting.[314]

One might think indie studios could file for patents after a game proved commercially successful. But this would be difficult because a developer must file no later than one year after "public disclosure" of the gameplay method.[315] At the latest, this means within one year of the game's release.[316] However, the clock could start running years earlier; pre-sales would likely constitute disclosure under what is known as the "on-sale bar," as would public demonstrations or promotional materials depicting patentable aspects of gameplay in sufficient detail.[317] In an industry where presales through crowdfunding campaigns and detailed pre-release trailers are common, the decision to patent would need to be made prior to release.

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definition to be applied to as-yet-unknown cases with as-yet-unknown inventions.").

312. *E.g.*, *In re* Marco Guldenaar Holding B.V., 911 F.3d 1157, 1162 (Fed. Cir. 2018); *In re* Smith, 815 F.3d 816, 819 (Fed. Cir. 2016).

313. U.S.P.T.O., FY 2020 PERFORMANCE & ACCOUNTABILITY REP. 35, 46–47 (2020), https://perma.cc/J5LY-2D8X (PDF); David Fagundes & Jonathan S. Masur, *Costly Intellectual Property*, 65 VAND. L. REV. 677, 689–90 (2012).

314. *See supra* Part I.C.2.

315. *See* 35 U.S.C. § 102(b)(1)(B).

316. *Id.* § 102(b)(1).

317. *Id.* § 102(a)(1).

B. Franchise Rights

Game developers often speak of obtaining "the IP" for a game or about their aspirations to create their own IP. When they refer to IP this way, they mean primarily trademarks and any relevant copyright in characters or plot.[318] Trademark rights are key to creating sequels to a popular game or launching a new franchise.[319] These rights, however, do not stop competitors from making clones or even promoting a game as the "spiritual successor" to an earlier title.[320]

1. Trademark

Trademark law is central to game franchises. Game titles and iconic characters like Mario or *Halo*'s Master Chief set established games apart regardless of whether other games feature similar gameplay or subject matter.[321] Trademark law prohibits clones or other competing games from using titles, logos, or promotional materials that are confusingly similar.[322] This secures the publisher the exclusive right to develop games under that title, release sequels, or authorize tie-ins like action figures and television adaptations.[323]

Trademark nonetheless poses few obstacles to cloning—it protects titles and logos, not game mechanics or themes. Even protection for titles is limited if using the trademarked words is

318. *See supra* note 154 and accompanying text.

319. *See infra* Part IV.B.2.

320. *See* Nathaniel Ng, *New Castles with Familiar Bricks—Balancing Copyrights, Spiritual Successor Video Games, and Competition*, 58 IDEA 337, 364–66 (2018). A "spiritual successor" is "a game designed to be very similar to a previously released game while distinguishing itself as a separate IP, often made by many of the same team members who worked on the earlier game." DAN CARREKER, THE GAME DEVELOPER'S DICTIONARY: A MULTIDISCIPLINARY LEXICON FOR PROFESSIONALS AND STUDENTS 206 (2012).

321. One poll of U.S. schoolchildren in 1990 showed Mario was already more recognizable than Disney's Mickey Mouse. DAVID SHEFF, GAME OVER: HOW NINTENDO CONQUERED THE WORLD 9–10 (1993).

322. *See* 15 U.S.C. § 1125(a)(1)(A)–(B).

323. Video game publishers enjoy two layers of protection with respect to these activities—copyright also prohibits unauthorized sequels, adaptations, and depictions of copyrighted characters. *See supra* Part II.B.

necessary.[324] Descriptive fair use, distinct from copyright fair use, allows competitors to use trademarked terms in their original descriptive sense.[325] Hence the developer of the 2014 Viking game *Banner Saga* rebuffed opposition from the makers of *Candy Crush Saga* (who sought to stop others from using "candy" or "saga" in game titles) because the "sagas," descriptively, are epic stories featuring Vikings and figures from Norse legend.[326] Nominative fair use and similar doctrines also permit using game titles for comparison,[327] as dozens of journalists have done in describing the Fall 2021 game *Eastward* as "Zelda-like."[328] This allowance leaves room for developers to market clones to fans of popular games. Indeed, first-person shooter games—now represented by best sellers like *Call of Duty*—were originally called "*Doom* clones" in reference to the genre-defining game *Doom* from 1993.[329]

2. Trade Dress

Trade dress works like trademark, but for distinctive product packaging or product configurations.[330] For software products like video games, commentators have suggested that

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324. *See* KP Permanent Make-Up, Inc., v. Lasting Impression I, Inc., 543 U.S. 111, 122 (2004).

325. *See id.*

326. *See* Wesley Yin-Poole, *King vs The Banner Saga*, EUROGAMER, https://perma.cc/WR9H-KD7X (last updated June 26, 2014).

327. *See* Peter M. Brody & Alexandra J. Roberts, *What's In a Domain Name? Nominative Fair Use Online After* Toyota v. Tabari, 100 TRADEMARK REP. 1290, 1301–02 (2010).

328. *E.g.*, Teddy Amenabar, *'Eastward' Is a Love Letter to Classic RPGs Without a Clear, Coherent Story*, WASH. POST (Oct. 1, 2021, 4:16 PM), https://perma.cc/SQ3H-PJL6; Nicole Carpenter, *Eastward Is Equal Parts Zelda, Earthbound, and Itself*, POLYGON (Sept. 14, 2021, 9:00 AM), https://perma.cc/92CM-7D79.

329. *See* GRENVILLE ARMITAGE ET AL., NETWORKING AND ONLINE GAMES 18 (2006). Similar designations remain in use for other genres, including "roguelike," a term for dungeon crawlers with procedurally generated levels like those of the 1980 title *Rogue*, and "metroidvania," a portmanteau of the 1986 titles *Metroid* and *Castlevania* referencing a distinct blend of action and exploration. Marek Suchanek, The Language of Videogames 53 (June 30, 2021) (Ph.D. dissertation, Silesian University in Opava), https://perma.cc/H2CT-PGCT (PDF).

330. *See* TrafFix Devices, Inc. v. Mktg. Displays, Inc., 532 U.S. 23, 28–29 (2001).

protected elements might include onscreen graphics or user interfaces.[331] This possibility notwithstanding, few cases have alleged trade dress infringement in video games. This may be due to the limits of trade dress. Like copyright, trade dress excludes functional elements; it does not cover anything that affects "cost or quality" or where exclusive rights would put competitors at a "significant non-reputation-related disadvantage."[332] As one scholar recently explained, this means that trademark does not protect any feature with benefits that would endure regardless of how many competitors used the same feature.[333]

Game mechanics and graphical features relating to gameplay would thus be excluded from trade dress protection due to their functionality just as they are excluded from copyright.[334] To the extent deviating from established gameplay would make a game more frustrating or less rewarding, competitors would be disadvantaged if they could not copy it. As with copyright, the one case to seriously test trade dress functionality was *Tetris Holding*.[335] That court held that "neither the color and style of the pieces nor the game board being 20 units by 10 units . . . are functional in the context of trade dress law."[336] This conclusion may be sound with respect to purely decorative aspects of color or style.[337] Like the

331. *See* Benjamin C.R. Lockyer, Comment, *Trying on Trade Dress: Using Trade Dress to Protect the Look and Feel of Video Games*, 17 J. MARSHALL REV. INTELL. PROP. L. 109, 129 (2017); Lauren Fisher Kellner, Comment, *Trade Dress Protection for Computer User Interface "Look and Feel"*, 61 U. CHI. L. REV. 1011, 1017 (1994).

332. *TrafFix*, 532 U.S. at 33 (citation omitted).

333. *See* Matthew G. Sipe, *A Fragility Theory of Trademark Functionality*, 169 U. PA. L. REV. 1825, 1873–77 (2021). For example, using bright orange for traffic cones would remain advantageous to the original user regardless of copying because the color improves visibility. Referring to all carbonated beverages as "Cokes," by contrast, would reduce the mark's value to the original user by undermining the mark's ability to specify Coca-Cola products. *See id.* at 1873.

334. *See* Karen Leisten & Annemarie Ettinger, *Protecting a Company's Graphical User Interface*, WILMERHALE (May 6, 2002), https://perma.cc/D238-9MNY; *supra* Part II.D.

335. Tetris Holding, LLC v. Xio Interactive, Inc., 863 F. Supp. 2d 394 (D.N.J. 2012); *see supra* Part II.D.2.

336. *Tetris Holding*, 863 F. Supp. 2d at 415.

337. *See id.*

copyright portion of the opinion, however, the analysis of playing field dimensions is unsatisfying. The court concluded that these aspects are nonfunctional because the game could be designed differently and still "function perfectly well."[338] While the game would still be playable, it would not be playable in the same way.[339] Changing the dimensions of play would make the game harder in some ways and easier in others, and it would thwart players who attempted to apply strategies they developed playing *Tetris*.[340] Granting *Tetris* exclusive rights to use these dimensions would thus confer a non-reputation-related advantage—the ability to offer a game with a familiar, popular set of mechanics—indicating that recognition of trade dress rights was improper.

IV. COMPETING WITHOUT IP

Commercial success in the video game industry follows from serving the demand for games similar to prior best-sellers. This means keeping the same basic formula—familiar game mechanics and story beats—but adding new content and sharper graphics. The game mechanics and story beats of popular games are common knowledge, and the foregoing discussion explains why IP does not stop competitors from duplicating them. One might expect competitors to break into the market by copying these features, yet blatant cloning is rare among major releases.

Consider a AAA example. The 2011 title *The Elder Scrolls V: Skyrim* is an open-world action role-playing game in which the player lives out the fantasy trope of playing the destined hero.[341] The game has earned over $1.3 billion in revenue to date.[342] The standard AAA strategy would be to release sequels in the same vein.[343] But *Skyrim*'s publisher, Bethesda, has not

338. *Id.* at 416.

339. *See supra* note 274.

340. *See supra* notes 271–274 and accompanying text.

341. *See generally* BEING DRAGONBORN: CRITICAL ESSAYS ON *THE ELDER SCROLLS V: SKYRIM* (Mike Piero & Marc A. Ouellette eds., 2021).

342. *See* Mistry, *supra* note 161, at 552.

343. *See supra* note 133 and accompanying text.

simply released a new game *like* this one.[344] Instead, it re-released the same game—*Skyrim*—in 2016 for a newer generation of PlayStation and Xbox consoles and again in 2017 for Nintendo Switch.[345] Around the same time, it released *Skyrim–Special Edition* (with remastered graphics) and *Skyrim VR* (a virtual-reality version).[346] Yet another remaster hit the latest generation of PlayStation and Xbox consoles on *Skyrim*'s tenth anniversary in November 2021.[347] Remarkably, *Skyrim* still ranked among the 100 top-selling and most-played games on the leading PC-gaming platform Steam as of 2021 despite being over a decade old by end of year.[348] So why has no competitor overtaken *Skyrim* by releasing a game tailored to the demand for similar games?

The answer lies beyond just IP. Legally speaking, other developers are free to create their own open-world action role-playing games that feature the player as a hero of legend. Indeed, *Skyrim* popularized the open world-format, and its systems for character advancement, crafting, and emergent quest design have become standard among AAA role-playing games.[349] The frequency and impact of copying is nonetheless dampened by practical obstacles. *Skyrim* took $100 million to develop and market even before it was remastered to take

344. Bethesda has, however, released games that riff on *Skyrim* with a different gameplay mode (*The Elder Scrolls Online*, a massively multiplayer online role-playing game in the same fictional universe) or a different theme (*Fallout 4*, an open-world single-player game with similar gameplay set in a post-apocalyptic future). *See* DANIEL REARDON & DAVID WRIGHT, THE DIGITAL ROLE-PLAYING GAME AND TECHNICAL COMMUNICATION: A HISTORY OF BETHESDA, BIOWARE, AND CD PROJEKT RED 8, 240–41 (2021).

345. *See* Dylan Candelora, *Skyrim: Every Major Re-Release So Far (& What Each One Improved About the Game)*, COMIC BOOK RES. (Nov. 19, 2021), https://perma.cc/J9NY-KFKT.

346. *See id.*; *see also* REARDON & WRIGHT, *supra* note 344, at 8.

347. "Why build another Skyrim, the logic seems to run, when Skyrim already exists—and, apparently, always will?" William Hughes, *The Skyrim Decade: How Bethesda's Dragon-Slaying Opus Transformed Gaming*, A.V. CLUB (Nov. 11, 2021, 1:00 AM), https://perma.cc/G7GJ-72LM.

348. *See Best of 2021: Top Sellers*, STEAM, https://perma.cc/L2N8-E7KN; *Best of 2021: Most Played*, STEAM, https://perma.cc/88Z3-MFH6; *Best of 2021: Best of VR*, STEAM, https://perma.cc/EG7M-8DTQ.

349. *See* REARDON & WRIGHT, *supra* note 344, at 222–24, 240–41.

advantage of new consoles' greater graphical capabilities.[350] One cannot recapture *Skyrim*'s magic without similar expenditures toward graphics and filling a massive open world.[351] Bethesda itself strains to craft a sequel that meets fan expectations.[352] Nor is it easy to break into this market without name recognition.[353] Though it has not yet spawned its own sequels, *Skyrim* is the fifth major release in the *Elder Scrolls* series.[354] Its reputation gives it staying power that trademark helps secure. Moreover, even without online gameplay, *Skyrim* has generated a community of fans who release "mods," stream themselves playing, and share memes from the game—all of which generate network effects that accrue to Bethesda's benefit.[355]

To make sense of these dynamics requires going beyond IP to consider IP's "negative space" through case studies showing how creators compete in markets where IP is unavailable. The following Subparts unpack those studies. As the discussion will show, the AAA and indie sectors of the game industry are remarkable exemplars of two very different modes of competition in this space. If the AAA sector follows trends in the fashion industry, then the indie sector falls in the same neighborhood as haute cuisine and stand-up comedy.

350. *See* Solomon Thompson, *25 Crazy Things Fans Didn't Know Behind the Making of Skyrim*, THE GAMER (Apr. 26, 2019), https://perma.cc/WE46-EJNR.

351. *See supra* notes 145–146 and accompanying text.

352. *See* Kat Bailey, *Todd Howard: Making Starfield Was Now or Never, Even if Elder Scrolls 6 Had to Wait*, IGN (Nov. 9, 2021, 2:05 PM) https://perma.cc/JD79-HPHZ.

353. *See* Taub, *supra* note 38.

354. *See* Jerrad Wyche, *Every Elder Scrolls Game, Its Starting Region & Opening Quest*, THE GAMER (May 6, 2022), https://perma.cc/67LH-A8SA.

355. *See* Piia Varis & Jan Blommaert, *Conviviality and Collectives on Social Media: Virality, Memes, and New Social Structures*, 2 MULTILINGUAL MARGINS 31, 40 (2015) (explaining how *Skyrim*'s "then I took an arrow in the knee" meme "became wildly productive and can now be tagged to an almost infinite range of different expressions").

A. Adventures in Negative Space

The conventional economic rationale for intellectual property centers on the problem of free-riding.[356] Society wants creators to invest in intellectual works because we benefit from them.[357] Complications arise, however, because intellectual works tend to be expensive to produce and cheap to copy.[358] This dynamic leaves creators vulnerable to being undercut by copyists who would free-ride by making and selling cheap copies, which the copyists could afford to do because they would not bear the same upfront costs.[359] The risk of being undercut in this way could discourage creators from making these works in the first place.[360] IP laws—like copyright and patent—avert this problem by endowing creators with exclusive rights to make and sell copies.[361]

To illustrate, consider a film like James Cameron's *Titanic*. Adjusted for inflation, it is one of the most expensive films ever made, costing $200 million in 1997.[362] Profit-motivated studios invest in these projects because they expect to make enough money not only to cover their expenses, but also to profit.[363] Copying threatens this objective. It costs twenty-five cents to burn a film to DVD.[364] Digital filesharing is even cheaper.[365] Studios could not compete with copyists who free-rode off the studio's efforts and sold bootleg DVDs; market competition could

356. *See* Stephanie Plamondon Bair & Laura G. Pedraza-Fariña, *Anti-Innovation Norms*, 112 NW. U. L. REV. 1069, 1076 (2018) (critiquing negative-space scholarship for doing the same).

357. *See id.* at 1080.

358. *See* Landes & Posner, *supra* note 9, at 326.

359. *Id.*; *see also* Glynn S. Lunney, Jr., *Copyright and the 1%*, 23 STAN. TECH. L. REV. 1, 8 (2020).

360. *See* Landes & Posner, *supra* note 9, at 328.

361. *See id.* at 326.

362. *See* Madeline Berg, *The Most Expensive Movies Ever Made*, FORBES (Apr. 27, 2016, 9:30 AM), https://perma.cc/8RR5-J2KC.

363. *See* Landes & Posner, *supra* note 9, at 327.

364. *See How to Burn a DVD*, WIKIHOW, https://perma.cc/2JYV-XZRG (last updated Apr. 20, 2022); *Smart Buy 100 Pack DVD-R 4.7gb*, AMAZON, https://perma.cc/E7RD-3684.

365. *See* Arista Rec. LLC v. Lime Grp. LLC, 784 F. Supp. 2d 398, 410–11 (S.D.N.Y. 2011).

drive the DVD price as low as the marginal cost of 25 cents.[366] Profit-seeking studios would not invest upfront without protection against this sort of copying and movies like this would not be made.[367] Copyright provides the legal framework for this investment by giving studios exclusive rights to sell their films.[368] Many commentators have (over)simplified this logic to the notion that IP rights provide the incentives necessary for creators to produce new works.[369]

Scholarship on IP's negative space challenges the traditional account. IP's negative space, as defined by one of the scholars who coined the term, consists of areas of intellectual production where we would expect intellectual property to play a role but "for some reason—an accident of history, or doctrine, or as a result of the norms of a particular creative community"—creativity proceeds without it.[370] The study of negative space throughout creative industries is predominated by case studies on industries where participants seem to have solved the free-riding problem through strategies other than IP.[371]

366. This simplification ignores commercialization strategies other than DVD sales. Perhaps studios would try to thwart bootlegging by screening the film only in theaters and making sure no copies left the theater, or perhaps they would find ways to elevate the theater experience to make it more appealing than home viewing. Studios might even initiate an ad campaign to convince consumers that buying unauthorized DVDs harmed artists. These strategies would mitigate free-riding, but not eliminate it. Moreover, the expense of these strategies would impact creators' bottom lines.

367. *See* Landes & Posner, *supra* note 9, at 335.

368. *See id.* at 326.

369. *See* Cohen, *supra* note 61, at 143 ("[T]he incentives-for-authors story is wrong as a descriptive matter. Everything we know about creativity and creative processes suggests that copyright plays very little role in motivating creative work.").

370. Christopher Jon Sprigman, *Conclusion: Some Positive Thoughts About IP's Negative Space*, *in* CREATIVITY WITHOUT LAW: CHALLENGING THE ASSUMPTIONS OF INTELLECTUAL PROPERTY (Kate Darling & Aaron Perzanowski eds., 2017), 249, 252 [hereinafter Sprigman, *Positive Thoughts*]; *see also* Rosenblatt, *supra* note 7, at 319 ("In IP law, negative space is a series of nooks, crannies and occasionally oceans—some obscure, some vast—where creation and innovation thrive in the absence of intellectual property protection.").

371. *See* Perzanowski & Darling, *supra* note 8, at 1, 5–7.

1. Copy-Resistant Markets

Free-riding is averted in some industries by features of the product or the market.[372] Kal Raustiala and Christopher Sprigman inaugurated the study of IP's negative space by identifying this pattern in the fashion industry.[373] Fashion designers produce new designs each year.[374] Contrary to the received wisdom that IP is necessary to induce creativity, they produce these designs even though neither copyright, trade dress, nor design patent protects fashion designs.[375] Raustiala and Sprigman found that the industry was viable due to synergy between producing new designs and copying by imitators.[376] When designers introduce a look, copying by other designers establishes it as a trend and drives sales.[377] Fast-fashion operators subsequently take up the look and sell it through affordable mass-market retailers.[378] Once it reaches the masses, high-fashion customers seek something new to set themselves apart.[379] The stage is thus set for a fashion designer to introduce yet another new look, restarting the cycle.[380]

The fashion case study has drawn a range of criticism due to its prominence. Some question whether it truly exemplifies a negative space given the substantial role trademarks play in fashion (and the litigiousness of prominent brands).[381] Garment designs may lack legal protection, but many garments sport trademarked logos for which customers are willing to pay a

372. *See* Bair & Pedraza-Fariña, *supra* note 356, at 1076.

373. *See generally* Raustiala & Sprigman, *The Piracy Paradox*, *supra* note 1.

374. *Id.* at 1693.

375. *See id.* at 1699–1705.

376. *See id.* at 1726 ("Rapid diffusion leads early-adopter consumers to seek out new designs on a regular basis, which in turn leads to more copying, which fuels yet another design shift.").

377. *See id.* at 1728–29.

378. *See id.* at 1721.

379. *See id.*

380. *See id.*

381. *See, e.g.*, Dreyfuss, *supra* note 12, at 1450. On the litigiousness of Louis Vuitton, see Mike Masnick, *Louis Vuitton's International Tour of Trademark Bullying Runs Smack Dab into UPenn Law School Who Explains Trademark Law in Return*, TECHDIRT (Mar. 6, 2012, 5:46 AM), https://perma.cc/3PFD-7BSA.

premium. The cycle itself also leads to waste through expenditures on advertising and the staggering environmental consequences of stoking demand for products that consumers may discard within the year.[382]

Notwithstanding the criticism, fashion is an important example because, due to distinctive features of the market, it has been identified as an industry where copying ultimately benefits those who are copied.[383] This characteristic is unusual in the literature. More commonly, industries avert free-riding not because copying helps them, but because features of the product or market make copying expensive or impractical. I call this feature "copy resistance." Stand-up comedy demonstrates how features of a creative work can mediate the difficulty of copying.[384] Jokes are subject to only thin copyright protection.[385] In earlier decades when jokes were more generic, the absence of legal protection meant comedians could nab popular jokes to retell as their own.[386] Beginning in the latter twentieth century, however, comedy has become increasingly personalized, even autobiographical, making jokes harder to appropriate.[387] It would be difficult for a comedian without a similar background to land jokes that reflect, say, Margaret Cho's experience as a Korean-American woman and LGBTQ+ social activist or Kumail Nanjiani's as a Pakistani-American immigrant man. This change in substance has made jokes more copy-resistant.[388]

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382. *See* Dreyfuss, *supra* note 12, at 1460; Kal Raustiala & Christopher Jon Sprigman, *Faster Fashion: The Piracy Paradox and Its Perils*, 39 CARDOZO ARTS & ENT. L.J. 535, 546 (2021) [hereinafter Raustiala & Sprigman, *Faster Fashion*] ("[A]s of 2015, greenhouse gas emissions from textiles production and the fashion industry were 'more than those of all international flights and maritime shipping combined.'"); *see also id.* at 547 (questioning why society "treat[s] fashion differently from any other form of economic activity that produces environmental harms").

383. *See* Raustiala & Sprigman, *Piracy Paradox*, *supra* note 1, at 1691.

384. *See* Oliar & Sprigman, *supra* note 2, at 1854–56.

385. *See id.* at 1801–05.

386. *See id.* at 1844–45.

387. *See id.* at 1852–53 (explaining that contemporary comedy emphasizes "the individual comedian's point of view," making appropriation less attractive in an industry in which "stealing is condemned").

388. *See* Kapczynski, *supra* note 7, at 1547 n.37 (stating that it is difficult for comedians to steal or copy jokes because modern comedy favors "jokes that are 'point-of-view' driven").

Related case studies document the efforts of conventional "full-IP" industries to attain copy resistance. Music and pornographic films provide two examples.[389] Even though albums and films are subject to copyright protection, digital file-sharing has precipitated a de facto decrease in copyright effectiveness for these media products.[390] In response, the industries have moved to live musical performances or exclusive "cam shows;" would-be copyists cannot replicate these as cheaply because their value stems from the live performance rather than the recording.[391] This shift does not make copying impossible. Extending the example of music, a competitor could host a live musical performance based on another's act by renting space and hiring performers. The problems associated with free-riding would nonetheless be diminished because the expense would preclude the competitor from aggressively undercutting prices.[392]

2. Norm Enforcement

Exploration of IP's negative space began with a case study in fashion, an industry where features of the market render copying beneficial to those whose work is copied. In contrast to that dynamic, an even greater number of case studies have identified negative spaces where participants mitigate free-riding through enforcement of community norms.[393] This work builds on the insights of property scholar Bob Ellickson, whose book *Order Without Law* follows dispute resolution

389. *See* Sprigman, *Positive Thoughts*, *supra* note 370, at 261–63.

390. *See* Kate Darling, *IP Without IP?: A Study of the Online Adult Entertainment Industry*, 17 STAN. TECH. L. REV. 655, 684 (2014); Christopher Jon Sprigman, *Copyright and Creative Incentives: What We Know (And Don't)*, 55 HOUS. L. REV. 451, 461 (2017) [hereinafter Sprigman, *Copyright and Creative Incentives*]; *see also* LUNNEY, *supra* note 61, at 74 (approaching file-sharing "as a natural experiment in radically reduced copyright protection").

391. *See* Darling, *supra* note 390, at 693 (explaining how the adult entertainment industry has adapted by creating more live video content); Sprigman, *Copyright and Creative Incentives*, *supra* note 390, at 461 ("[T]he music industry adapted to piracy by re-emphasizing the live concert experience, which, unlike recordings, cannot effectively be pirated.").

392. *See* Sprigman, *Positive Thoughts*, *supra* note 370, at 262–63.

393. *See* Bair & Pedraza-Fariña, *supra* note 356, at 1076.

among cattle ranchers in Shasta County, California.[394] He demonstrated the primacy of social norms in governing relations. Neighbors aspired to conduct themselves or make reparations in conformity with community norms regardless of what the law required, and those who did not conform faced social sanctions from gossip to ostracism.[395] Studies of IP's negative spaces have revealed similar trends in norm enforcement as a solution to free-riding across creative fields as varied as stage magic, haute cuisine, tattoo art, and fan-fiction.[396] Video games have also featured in this literature—but with respect to fan creations rather than professional developers.[397] Comedy is also of special interest because, in addition to demonstrating copy resistance, it stands as a paradigmatic example of norm enforcement.[398]

Governance through norms holds intuitive appeal, driven by the sense that it avoids the acrimony of legal proceedings and allows participants to tailor rules to better fit their needs. Norms among Michelin-star chefs, for example, strike a more subtle balance than formal IP law by encouraging chefs to publicize innovative recipes while punishing those who copy others' recipes exactly or pass off others' as their own.[399] Any warm feelings about relying on norms rather than law must be tempered, however, by recognizing that violence often accompanies enforcement: when warnings fail, ranchers and comedians alike may fall back to their fists.[400] Moreover,

394. *See generally* ROBERT ELLICKSON, ORDER WITHOUT LAW: HOW NEIGHBORS SETTLE DISPUTES (1994).

395. *Id.* at 176–78.

396. *See generally* Loshin, *supra* note 3 (stage magic); Fauchart & von Hippel, *supra* note 4 (haute cuisine); Perzanowski, *supra* note 5 (tattoo art industry); Hetcher, *supra* note 6 (fan-fiction).

397. *E.g.*, Shisha, *supra* note 33, at 760 (explaining that professional gamers "wield considerable power and influence, and are well-positioned to dispense harsh reputational sanctions" in the gaming industry); Wallace, *supra* note 33, at 228–30.

398. *See* Oliar & Sprigman, *supra* note 2, at 1809–31.

399. *See* Fauchart & von Hippel, *supra* note 4, at 192–93, 195–96. *But see* Oliar & Sprigman, *supra* note 2, at 1864 (finding norms in comedy "simple and crude" relative to copyright).

400. *See* ELLICKSON, *supra* note 394, at 131; Oliar & Sprigman, *supra* note 2, at 1796–97; *id.* at 1820 ("It is significant . . . that such acts of violent or potentially violent retribution enjoy considerable legitimacy within the comedic community.").

communities where norms predominate are those where participants have latched onto conformity and norm-policing as markers of esteem and belonging.[401] Several scholars have documented how these social and emotional commitments can lead to overenforcement, difficulties adapting to change, and the entrenchment of biases and incumbents.[402]

The most significant limitation of this strategy is that norms only bind community members.[403] This is not to say subscribing to norms is entirely voluntary; communities that control access to resources may be able to insist.[404] Consider the plight of an aspiring comic or magician. Clubs will refuse to book her for shows if she attains notoriety as a norm-breaker, ending her career.[405] Likewise, she may not be invited to the conferences or nominated for the awards that would allow her to advance.[406] Yet norms may lack force against those already at the top. Accusations of stealing by newcomers against established participants are less likely to stick, and a star may

401. *See* Rosenblatt, *supra* note 15, at 8, 10.

402. *See, e.g.*, Richard McAdams, *The Origin, Development, and Regulation of Norms*, 96 MICH. L. REV. 338, 419–23 (1997) (arguing that when norms are enforced excessively or too zealously, they may prove inefficient or even harmful); Anthony J. Casey & Andres Sawicki, *The Problem of Creative Collaboration*, 58 WM. & MARY L. REV. 1793, 1822–23 (2017); Rosenblatt, *supra* note 15, at 10; *see also* Madhavi Sunder, *Cultural Dissent*, 54 STAN. L. REV. 495, 555–56 (2001) (problematizing the law's uncritical reinforcement of traditional norms for "insulating cultures from change and entrenching the existing power structures of a community").

403. *See* Dreyfuss, *supra* note 12, at 1458–62.

404. *See, e.g.*, Katherine J. Strandburg, *Curiosity-Driven Research and University Technology Transfer*, *in* UNIVERSITY ENTREPRENEURSHIP AND TECHNOLOGY TRANSFER: PROCESS, DESIGN, AND INTELLECTUAL PROPERTY 93, 108–09 (Gary D. Liecap ed., 2005) (explaining how non-compliance with academic science norms may lead to "denial of the scarce resources of research funding and attention").

405. *See* Oliar & Sprigman, *supra* note 2, at 1817–18.

406. *See* Loshin, *supra* note 3, at 137–39 ("Magicians whom other magicians perceive as behaving badly may not be invited to give lectures, invited to perform in magic competitions, or featured in magic trade publications."); *cf.* Daniel J. Hemel & Lisa Larrimore Ouellette, *Beyond the Patents–Prizes Debate*, 92 TEX. L. REV. 303, 316–19 (2013) (exploring "prizes, grants, or tax incentives" as alternatives or complements to patents for spurring innovation).

be able to trade off her name to book performances and media appearances despite her transgressions.[407]

3. Non-Pecuniary Motivations

Another undercurrent in the negative-space literature is the salience of non-pecuniary motivations.[408] While profits drive studios and their investors, motives vary for individual creators.[409] If you asked an artist what drove her, it is unlikely she would parrot the conventional story of copyright incentives.[410] Depending on the artist, money might not even approach the top the list. Rather, creators often speak of intrinsic motivations such as the need to express themselves—to do what they love or satisfy a compulsion.[411] Creators also act on social motivations, such as a desire to build reputation or esteem.[412] These social motivations provide a partial explanation for the efficacy of norm-enforcement regimes documented in prior case studies.[413] Some creators may also forego payment on a project because they seek to build reputation or notoriety that they can translate into more profitable ventures in the future.[414] Together these

407. *See* Oliar & Sprigman, *supra* note 2, at 1824 ("[E]nforcement was relatively unlikely to succeed when the appropriator was a more popular comic than the originator. . . . Also, intermediaries are less likely to enforce the norms or refuse to deal when the alleged thief enjoys public appeal.").

408. *See* Yochai Benkler, *Coase's Penguin, or, Linux and* The Nature of the Firm, 112 YALE L.J. 369, 426–27 (2002) [hereinafter Benkler, *Coase's Penguin*] (explaining that intrinsic and social-psychological rewards sometimes motivate creative production more than monetary rewards); Rosenblatt, *supra* note 7, at 343–45.

409. *See* Rosenblatt, *supra* note 7, at 320–21.

410. *See* Cohen, *supra* note 61, at 143 ("Everything we know about creativity and creative processes suggests that copyright plays very little role in motivating creative work.").

411. *See id.*; *see also* Rebecca Tushnet, *Economies of Desire: Fair Use and Marketplace Assumptions*, 51 WM. & MARY L. REV. 513, 524 (2009) ("Some of these reasons are pleasant, some are unpleasant, even destructive.").

412. *See* Benkler, *Coase's Penguin*, *supra* note 408, at 427–28; Rosenblatt, *supra* note 7, at 344–46.

413. *See e.g.*, Rosenblatt, *supra* note 7, at 332.

414. *See* Benkler, *Coase's Penguin*, *supra* note 408, at 424–25 (explaining how free software development can be motivated by "reputation gains" or "more mundane benefits, such as consulting contracts, customization services, and increases in human capital").

non-pecuniary motives provide an additional layer of incentives—effectively a subsidy—for creative production.

While these incentives facilitate creation of more works for society to enjoy, we should take care not to romanticize the idea of creating for the love of art. It can all too easily obscure the problems that follow from overworking and underpaying creative workers.[415] Nor should we take creativity as some sort of mystery divorced from artists' material realities.[416] These dynamics also compound problems for marginalized workers across creative industries, given that many of the workers whose labor goes unrewarded or undercompensated are women, indigenous peoples, or members of the LGBTQ+ community.[417] Full assessment of any domain of creative production requires accounting for these costs and their impact on what is produced.[418]

B. AAA Games

1. Copy Resistance

Video games present a rich case study because they are the face of modern creative production. Their economic and social significance alone would merit attention, as would the industry's unique configuration of IP and non-IP protections. As closer examination shows, the industry also embodies several trends previously documented in copyright's negative space. The AAA sector guards itself from cloning because the expense of making AAA games renders them copy resistant. Recall that one major concern with copying is free-riding—when a work is expensive to produce but cheap to copy, third parties can undercut the creator by making copies and selling them for

415. *See* Dreyfuss, *supra* note 12, at 1464; Renyi Hong, *Game Modding, Prosumerism and Neoliberal Labor Practices*, 7 INT'L J. COMMC'N. 984, 985 (2013) (documenting extraction of value from unpaid video-game modders).

416. *See* Cohen, *supra* note 61, at 146–47.

417. *See, e.g.*, Dreyfuss, *supra* note 12, at 1464 (women and indigenous peoples); JUUL, *supra* note 24, at 113–19 (transgender and gender non-binary developers); Bonnie Ruberg, *The Precarious Labor of Queer Indie Game-Making: Who Benefits from Making Video Games "Better"?*, 20 TELEVISION & NEW MEDIA 778, 780 (2019).

418. *See e.g.*, Ruberg, *supra* note 417, at 779–80.

less.[419] Legal protection is less urgent where the expenses of copying are comparable to those of producing the original.[420] Later entrants might choose to copy something popular, but they would be restricted in their ability to undercut the price because they too would have to recoup their upfront investments.[421]

Such is the case with AAA games. Blockbuster games now cost upward of $100 million to develop and market due to investment in features like graphics, celebrity involvement, full voice acting, and open worlds.[422] These games are expensive to clone because competing head-to-head with the original requires comparable expenditures on graphics and marketing.[423] Competitors can benefit from the original game's marketing to the degree that it popularizes a genre, but popular genres are so crowded that a game is unlikely to stand out without its own marketing.[424] Even if there are no legal obstacles to making similar games, the cost of competing via budget, as it were, presents practical obstacles that mitigate cloning.

Overt piracy would present a different problem. A game that cost $100 million to produce could be burned to a disc for twenty-five cents, giving rise to the risk of free-riding.[425] This problem is averted, however, because copying and selling a game outright remains prohibited.[426] Copyright likewise prohibits competitors from copying specific art assets or lines of code.[427] They may create similar art and code, but they must start from square one, forcing them to incur comparable expenses. Copyright thus prohibits specific forms of copying that raise serious free-riding problems while leaving game makers to sort out others.

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419. *See supra* notes 356–360 and accompanying text.

420. David Friedman, *Standards as Intellectual Property: An Economic Approach*, 19 U. DAYTON L. REV. 1109, 1116 (1994).

421. *See id.* at 1118.

422. *See supra* notes 143–151 and accompanying text.

423. *See supra* Part I.C.1.

424. *See, e.g.*, Chatfield, *supra* note 18.

425. *See supra* note 364 and accompanying text.

426. *See supra* Part II.A.

427. *See supra* Part II.A.

2. Franchise Entrenchment

AAA games also benefit from legal and non-legal protection over franchises. Recall that eighty of the top 100 games of 2018 were sequels.[428] So too were all but one of the top twenty.[429] The outlier, *Spider-Man*, may not have been a video game sequel but it was an extension of an established franchise for a superhero whose popularity spans sixty years.[430]

Publishers' investment in these franchises is no accident. Imitating a popular game may be viable in a market where players want more games *like* that game. That strategy is not viable, however, if players are loyal to a franchise and resistant to substitutes. By wielding trademarks and related licensing rights to protect their franchises, publishers insulate themselves against competition. Publishers bolster these efforts through additional non-legal strategies to cultivate and lock in their established fan bases.

a. Trademarks and Third-Party Licenses

The absence of comprehensive copyright protection does not necessarily mean the industry gets by without IP. Participants may instead rely more heavily on whatever IP rights remain available. Much like fashion relies on trademark in the absence of copyright, participants in the video game industry rely on trademarks and related rights to protect franchises.[431] Trademark law does not protect substantive game design elements, but it does give developers exclusive rights to release sequels and spin-offs.[432]

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428. *See Global Yearly Chart 2018*, *supra* note 152.

429. *Id.*

430. Additionally, though 2018's *Spider-Man* was not marketed as a sequel and did not continue the story arc from any prior game, it followed at least twenty-two prior Spider-Man games across several platforms spanning four decades beginning with the 1982 *Spider-Man* for the Atari 2600. *See* Chris Hodges, *Every Spider-Man Video Game, Ranked from Worst to Best*, SCREENRANT (July 10, 2017), https://perma.cc/7ZXQ-UBNT. If a game qualifies as a sequel by utilizing the same title, the same characters, and the same trademarks and character copyrights, then all twenty best sellers of 2018 were sequels.

431. *See supra* Part III.B.

432. *See supra* Part III.B.

Reliance on trademark also makes sense given the industry's historical issues with quality. Trademarks are important in markets where it would be difficult to evaluate quality before purchasing a good.[433] Brands and similar marks allow purchasers to make informed decisions despite this difficulty by relying on past experience and brand reputation.[434] If unethical sellers falsely used other manufacturers' marks, however, brands would be useless because purchasers could not rely on them.[435] Trademark prohibits this deception.

This rationale fits the video game industry. Players cannot inspect game quality firsthand prior to purchase and hundreds of new titles are released for Nintendo, PlayStation, and Xbox home consoles each year; the number is an order of magnitude greater for PC games and greater still for mobile games.[436] Many consumers also regret prior bad purchases.[437] Consumer reliance on known franchises makes sense in light of these dynamics and the industry's focus makes sense as a response to this consumer strategy.

Producers also rely on third-party licenses with celebrities and sports leagues that make games costly if not impossible to duplicate. Inclusion of celebrities generates media buzz, and the right of publicity provides legal support for publishers' marketing and promotion.[438] The 2020 title *Cyberpunk 2077*, for example, received considerable attention prior to release because one of the main characters was voiced by and modeled

433. *See* MENELL ET AL., *supra* note 245, at 891.

434. *See* William M. Landes & Richard A. Posner, *Trademark Law: An Economic Perspective*, 30 J.L. & ECON. 265, 269–70 (1987).

435. *See id.* at 270.

436. *See, e.g.*, *List of PlayStation 4 Games (A–L)*, WIKIPEDIA, https://perma.cc/XJQ7-4U7Q (documenting 3,419 PlayStation 4 games released since the console's introduction in 2013); *List of PlayStation 4 Games (M–Z)*, WIKIPEDIA, https://perma.cc/Y65Y-TR58 (noting an additional 3,386 PlayStation 4 games); Clement, *supra* note 173 (documenting over 8,000 new PC games per year); J. Clement, *Apple App Store: Number of Available Gaming Apps as of Q1 2021*, STATISTA (Jan. 24, 2022), https://perma.cc/JU6P-S5CU (documenting over 18,000 new iPhone gaming applications from Q4 2020 to Q1 2021).

437. *See supra* notes 95–101, 158–161 and accompanying text.

438. *See, e.g.*, CAL. CIV. CODE § 3344(a) (2022) (prohibiting use of "another's name, voice, signature, photograph, or likeness" for advertising or selling or soliciting purposes). *See generally* JENNIFER E. ROTHMAN, THE RIGHT OF PUBLICITY: PRIVACY REIMAGINED FOR A PUBLIC WORLD (2018).

after actor Keanu Reeves;[439] in like fashion, Giancarlo Esposito of *Breaking Bad* fame lent his voice and likeness to the antagonist of the 2021 release *Far Cry 6*.[440] Studios pay significant sums to include A-list celebrities.[441] Because the right of publicity protects celebrities' likenesses, including their voices, it prohibits other studios from including these or other celebrities unless they incur comparable expenses.[442] Like graphics and other production expenses, the inclusion of celebrities contributes to copy resistance.

Licenses with sports leagues provide even more significant advantages. If an action star like Sylvester Stallone assigns exclusive rights to his likeness to developers at Acme Studios, then Bruce Willis may still be available to Weyland-Yutani; better or worse substitutes exist.[443] But consider the result of licenses like the seven-year, $1.1 billion deal the NBA signed with Take-Two Interactive, maker of the *NBA 2K* series of games.[444] Most basketball fans who play video games want the experience of using actual teams, with actual logos, with actual players.[445] Competitors who are excluded from using these may still offer a genericized basketball game, but they will face an uphill battle for a market share. Competing via license deals is prohibitively expensive for smaller studios, but enforceability of the relevant trademarks leaves the availability of copyright

439. *See supra* note 149 and accompanying text.

440. *See* Audrey Cleo Yap, *Giancarlo Esposito on Playing a Gus Fring-esque Dictator in 'Far Cry 6'*, VARIETY (July 12, 2020, 1:07 PM), https://perma.cc/UY4E-SG9T.

441. *See supra* note 150 and accompanying text.

442. The right of publicity would likewise stop game studios from *imitating* celebrities' voices. *See* Midler v. Ford Motor, 849 F.2d 460, 463 (9th Cir. 1988) (holding that the imitation of Bette Midler's "distinctive voice" in an advertisement supported a right-of-publicity claim).

443. The example might sound farfetched if one was unaware that both actors recently reprised their roles from the action films *Rambo* and *Die Hard*, respectively, for a *Call of Duty* '80s Action Hero DLC. *See* Eddie Makuch, Call of Duty *Devs Talk* Die Hard *Missions and What It Took to Bring Rambo and McClane to the Game*, GAMESPOT (May 18, 2021, 4:19 PM), https://perma.cc/AX9X-HSKM.

444. *See* Needleman, *supra* note 151.

445. *See* Jake Dee, *10 Best Basketball Video Games, Ranked by Metacritic*, SCREENRANT (July 13, 2021), https://perma.cc/8LHR-WSM6 (demonstrating that all of the top-ranked basketball video games are NBA games with real-world players and teams).

protection, other than the right to prohibit wholesale piracy, largely beside the point.

b. Network Effects

Many games also accrue value through the growth of their player bases; this provides established games another asset that cannot be appropriated. The literature on network effects provides perspective. Some goods and services become more valuable because others use the same good or service.[446] The canonical examples come from communications: the value of phone service increases as more people have phones, much like the value of a service like Facebook increases as more people join. Games benefit from similar dynamics.

The point is most evident for online multiplayer games. Take the popular battle-royale game *Fortnite*. It has attracted over 350 million registered users, with a record of over 12 million online at the same time.[447] A large player base is valuable for a multiplayer game because it facilitates matchmaking, allowing players to find others of comparable skill levels to play against at any time of day.[448] This gives *Fortnite* a competitive advantage. A new entrant could not out-compete *Fortnite* simply by introducing a game with better graphics, gameplay, and other design features; it would need to be sufficiently better to overcome the network effects supporting the incumbent game.

A popular game may also simply attract a fanbase that promotes the game and makes it more popular. As referenced above, even single-player games like *Skyrim* reap benefits by attracting large online communities eager to share strategies, memes, and game mods.[449] These mods—adding sometimes hundreds of hours of free, fan-made content—provide value and replayability to the game through fans' uncompensated labor.[450]

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446. *See* Rosenblatt, *supra* note 7, at 348.

447. Mansoor Iqbal, *Fortnite Usage and Revenue Statistics (2022)*, BUS. APPS., https://perma.cc/7JKF-L4EY (last updated June 30, 2022).

448. *See generally* Mingliu Chen et al., Matchmaking Strategies for Maximizing Player Engagement in Video Games (Sept. 22, 2021) (unpublished manuscript), https://perma.cc/EQW2-HBRC (PDF).

449. *See* Reardon & Wright, *supra* note 344, at 100–06.

450. *See* Note, *Spare the Mod: In Support of Total-Conversion Modified Video Games*, 125 HARV. L. REV. 789, 800–01 (2012) (discussing how "free labor

Streaming platforms like YouTube and Twitch, where many players congregate, have also become important networks for organic or sponsored promotion of whichever games popular streamers choose to play.[451] Those games popular enough to attract streamers' attention accordingly attract even more players, entrenching their popularity.

Games, like other online services, may also be designed to lock players in. One way of achieving this is by exploiting the decision-making weaknesses outlined in the behavioral economics literature.[452] The sunk cost fallacy, for example, may keep players attached to a game after they have spent money on subscriptions or microtransactions.[453] Various aspects of the software-as-service business model may therefore not only generate immediate revenue, but also contribute to long-term player retention.[454]

3. Feedback Loop: More of the Same

Publishers' strategy of investing heavily in graphics and other high-budget assets intensifies their reliance on established franchises. There is a feedback loop between the two. When investors put $100 million toward a game, they want assurances that the game will sell enough copies to return a profit. One way to increase that likelihood is to create sequels for games that sold well in the past—if the seventeenth installment of *Call of Duty* sold twenty-million copies, it is a good bet that the nineteenth installment will also sell.[455] Besides pushing studios to keep gameplay consistent, this drive to tap

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and leisure . . . lets the industry sidestep copyright issues through the 'ideological masking of modding as a collaborative process'").

451. *See* Mark R. Johnson & Jamie Woodcock, *The Impacts of Live Streaming and Twitch.tv on the Video Game Industry*, 41 MEDIA CULTURE & SOC'Y 670, 676 (2018).

452. *See generally* Christine Jolls et al., *A Behavioral Approach to Law and Economics*, 50 STAN. L. REV. 1471 (1998).

453. *See* Erica L. Neely, *Come for the Game, Stay for the Cash Grab: The Ethics of Loot Boxes, Microtransactions, and Freemium Games*, 16 GAMES & CULTURE 228, 238 (2019).

454. *See id.*

455. *See Call of Duty*, WIKIPEDIA, https://perma.cc/YEA2-TJZD (documenting the release of the nineteenth installment in 2022); *see* Taub, *supra* note 38 ("[I]ncreasingly, the game industry shares something else with Hollywood: a heavy reliance on sequels.").

into an established audience may also discourage studios from touching cultural or political controversy, such as the inclusion of police and police misconduct in games where it would be thematically appropriate. One recent example that drew attention was *Spider-Man: Miles Morales*, which omitted law enforcement rather than confronting the complicated themes featured in the original source material in connection with Miles Morales' experience as a Black and Puerto Rican teen whose father is on the force.[456] Another was *Cyberpunk 2077*, a game set in a dystopian future, where the developers promised police corruption and brutality but underdelivered on these themes in the final release.[457]

C. Indie Games

The video game industry is financially precarious for small studios, including most indie studios. Cloning adds to this precarity. In rare cases of particularly egregious cloning, developers may possess viable IP claims,[458] but indie studios' innovations tend to consist of game mechanics and novel themes, categories with only thin IP protection. Barring legal recourse, indie studios cannot avert copying the same way as AAA studios. They generally lack resources to engage in a graphics or marketing arms race with other entrants to the same genre. Indeed, the story of *Threes!* and *2048* outlined above highlights an unfortunate dynamic where one studio releases a game but a clone captures the market through better polish and marketing.[459]

Yet cloning has not derailed indie development as much as one might expect. This may be partly due to a different orientation to financial risk.[460] Asked to define success, many

456. *See, e.g.*, Eliana Dockterman, Spider-Man: Miles Morales *Could've Tackled Police Reform Head-On. Instead, the Cops Are Almost Entirely Gone*, TIME (Nov. 10, 2020, 3:34 PM), https://perma.cc/66TU-GHYU (criticizing the game's avoidance of any discussion of police brutality).

457. *See* Wes Fenlon, *9 Features that Didn't Make It to the Final Version of* Cyberpunk 2077, PCGAMER (Dec. 16, 2020), https://perma.cc/7U2G-T585.

458. *See, e.g.*, Spry Fox LLC v. LOLApps, No. 2:12-cv-00147-RAJ, 2012 WL 5290158, at *1–2 (W.D. Wash. Sept. 18, 2012); *see supra* note 253 and accompanying text.

459. *See supra* notes 192–196 and accompanying text.

460. *See* Whitson et al., *supra* note 168, at 611.

indie developers simply wish to have the freedom to keep making the kinds of games they want to make.[461] Some measure of financial success remains necessary, but intrinsic motivations partly explain why indie studios keep making games despite the risks.[462]

Developers also benefit from systemic barriers to cloning. Community norms restrict copying among indie developers, and selection of niche aesthetics and themes gives indie games a measure of copy resistance. Crowdfunding also alleviates risk because it provides revenues prior to release and therefore (usually) prior to the risk of cloning.[463] This equilibrium remains fragile, however, and the explosion of mobile games threatens it.

1. Community Norms

Cloning among indie developers is averted because the community is one where norm enforcement is viable. Too many games are released each year for players to navigate simply by browsing the virtual shelves on a platform like Steam.[464] Additionally, dedicated indie-game players are selective in screening games for the sort of subcultural authenticity often associated with indie games, much like aficionados of indie music or films.[465] Success requires developers to win the approval of cultural institutions within the indie sector so they can win invitations to expos, nominations for awards, and connections to potential investors for future projects.[466] Securing this approval requires conforming to indie norms.

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461. *See id.*

462. *See supra* Part IV.A.3.

463. Exceptions arise where developers announce a game in progress and a third party immediately begins making a clone; motivated copyists may beat the original creator to market. *See, e.g.*, Russ Pitts, *Cloned at Birth: The Story of* Ridiculous Fishing, POLYGON (Apr. 24, 2013, 12:00 PM), https://perma.cc/U8YS-6KLX. Recall that the industry began with Atari's co-founders copying Magnavox's *Table Tennis* after witnessing a pre-release demonstration. *See supra* note 65 and accompanying text.

464. *See supra* note 436.

465. *See* JUUL, *supra* note 24, at 38–39.

466. *See, e.g.*, Whitson et al., *supra* note 45; Perks, *supra* note 174, at 17; Whitson et al., *supra* note 168.

Indie developers pride themselves on originality.[467] Some degree of copying is expected, but subsequent developers are expected to innovate beyond what has come before.[468] Similarly, case studies on haute cuisine uncovered a norm among chefs against copying another chef's recipe *exactly*.[469] Imitation is permitted, but chefs must add their own spin.[470] This standard resists precise specification; whether a recipe follows the original too closely is the sort of thing chefs claim to know when they see.[471] Research on game developers and players reveals similar norms. It is a breach of community norms to copy an entire system unchanged.[472] Moreover, it is a breach to simply reskin a game—to keep the same underlying mechanics and change only the artwork or overall theme.[473] As with cuisine, how much must be changed is left to community discretion: indie developers "openly admit they borrow elements from other games themselves, so they are careful in judging fellow game developers who are accused of cloning."[474] Motives also matter. One who copies to profit off of the original is scorned, while a fan who copies in homage may be tolerated or even welcomed.[475]

Norm enforcement is difficult, however, against those who stand outside the community. Shaming is a common sanction for breach of norms in the indie community as in others and, in the age of social media, it can in theory be deployed even against outsiders.[476] Indie studios that have attempted such public shaming campaigns against outside developers who have

467. *See, e.g.*, van Roessel & Katzenbach, *supra* note 179, at 408–10.

468. *See id.*

469. *See* Fauchart & von Hippel, *supra* note 4, at 192–93.

470. *See id.*

471. *See id.* at 193.

472. *See* van Roessel & Katzenbach, *supra* note 179, at 408.

473. *See id.* at 408 ("Developers generally agree on these extreme ends of imitation: a wholesale copying of any of the three main components is not acceptable.").

474. Phillips, *supra* note 46, at 149 ("[E]valuation of the artistic integrity of games is done via informal channels, by the indie development community themselves . . . ."); van Roessel & Katzenbach, *supra* note 179, at 411.

475. *See* van Roessel & Katzenbach, *supra* note 179, at 413.

476. *See* Phillips, *supra* note 46, at 149. *See generally* Kate Klonick, *Re-Shaming the Debate: Social Norms, Shame, and Regulation in an Internet Age*, 75 MD. L. REV. 1029 (2016); Elizabeth L. Rosenblatt, *Fear and Loathing: Shame, Shaming, and Intellectual Property*, 63 DEPAUL L. REV. 1 (2013).

imitated indie games too closely have realized only limited success.[477]

2. Finding a Niche

Many indie developers also make creative decisions that render their games copy-resistant. They do this not by ramping up production value or otherwise making their games expensive to copy, per se. Instead, they choose aesthetics, themes, and mechanics that are less popular and therefore less profitable to copy.

Indie developers are the hipsters of the industry: they define game-design criteria in opposition to the mainstream.[478] Some of these decisions, particularly with respect to aesthetics, are driven by financial constraints. Indie developers have smaller budgets than AAA developers. They cannot afford to make games with hyper-realistic 3D graphics; if they tried, the resulting game would convey the disappointing impression that it could have been good if only it had a proper budget.[479] Many indie developers have nonetheless produced memorable, aesthetically pleasing games by adopting an intentionally retro style evoking the pixelated look of video game consoles of the 1980s and 1990s.[480] Pixelated graphics can be achieved on a smaller budget and without enlisting nearly as many artists as the contemporary AAA game.[481]

Other decisions are driven by developers' desire to explore perspectives and ways of being that are missing from AAA games. Many mainstream games follow action-hero plotlines where players conquer obstacles through violence. *Depression Quest*—the indie game sadly best known as the initial target of GamerGate—charts a different course; it puts the player in the position of battling depression while managing medications and relationships.[482] Another notable entry, *Undertale*, adopts the trappings of a combat-heavy, 90s-era roleplaying game, but it provides the option to overcome opponents by befriending them

477. *See infra* Part IV.C.4.
478. *See supra* notes 165, 176–178 and accompanying text.
479. JUUL, *supra* note 24, at 34.
480. *Id.* at 28.
481. *Id.*
482. *Id.* at 139–40.

(at greater difficulty than simply killing them).[483] Recent indie games have also featured stories and relationships grounded in the experiences of the LGBTQ+ community.[484] Indeed, games like *Depression Quest* have prompted some gamers to complain that "politics" should be kept out of games.[485]

Adopting non-mainstream aesthetics and themes is no guarantee against copying, but it does impact the calculus for a profit-driven appropriator. The protection is not durable, however, if an indie trend goes mainstream. Consider the trajectory of "survival horror" games. The survival horror genre was utilized by mainstream publishers as early as 1996 and represented a partial turn away from traditional action games, subverting player expectations by requiring them to sometimes run or hide.[486] Even so, by 2008, AAA horror games had succumbed to the conventions of standard action-shooter games to better appeal to mainstream audiences.[487] Around the same time, indie developers launched a contrary approach to survival horror. The indies armed players with little more than a flashlight.[488] They restricted player autonomy so thoroughly that some hapless protagonists could do little more than sit at a desk, anxiously watching security cameras.[489] This approach proved surprisingly popular through titles like the 2012 game *Slender: The Eight Pages* (featuring the infamous Slender Man) and the 2014 game *Five Nights at Freddy's* (a nightmarish take on the animatronics of Chuck E. Cheese), both of which benefited from streaming by YouTubers.[490] As a result, however,

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483. *Id.* at 156–62.

484. *See id.* at 112–17.

485. *See* Simon Parkin, *Zoe Quinn's* Depression Quest, THE NEW YORKER (Sept. 9, 2014), https://perma.cc/J3F3-CMCT. These complaints admit no hint of irony. The implicit position is that the typical game featuring a gun-toting vigilante solving problems through gratuitous violence is politically neutral.

486. *See* Laurie N. Taylor, *Gothic Bloodlines in Survival Horror Gaming*, *in* HORROR VIDEO GAMES: ESSAYS ON THE FUSION OF FEAR AND PLAY (Bernard Perron ed., 2009), at 46–47.

487. *See* BERNARD PERRON, THE WORLD OF SCARY VIDEO GAMES: A STUDY IN VIDEOLUDIC HORROR 34, 220–21, 232 (2018); Jim Sterling, *How Survival Horror Evolved Itself Into Extinction*, DESTRUCTOID (Dec. 8. 2008), https://perma.cc/6Z94-A8UP.

488. *See* PERRON, *supra* note 487, at 238.

489. *See id.* at 239.

490. *See id.* at 71; *supra* note 451 and accompanying text.

non-combat survival horror has ascended in popularity and spawned numerous clones.[491]

3. Alternative Funding

Crowdfunding also provides indie studios a buffer against the financial impact of cloning. Indie studios launch campaigns on platforms like Kickstarter and Indiegogo to fund their games.[492] These campaigns typically consist of early-stage presales: supporters pay money upfront in exchange for a copy of the game months or years later.[493] This dampens commercial risk. If the developer has already covered its expenses and paid its employees, it is not fatal to the studio if a clone outcompetes the game after its release.[494]

The unfortunate side effect is that crowdfunding may also inadvertently contribute to a decline in quality. Pressure to succeed on the market provides an incentive for studios to release a well-polished game that will receive high reviews and sell an adequate number of copies. Studios that make enough presales through crowd funding can afford to worry less about the quality of the final release.

4. The Pressure of Mobile

Mobile games pose a threat to indie studios because many mobile developers stand outside the indie community but make games similar in scope. Indie studios enjoy some measure of security vis-à-vis other indie studios because they can count on shared norms to mitigate copying. They need not worry about copying by major studios because AAA publishers generally lack interest in making similar games. Even setting aside niche aesthetics and themes, indie games tend to be modest in scope, while AAA publishers seek to create expansive worlds with

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491. *See* PERRON, *supra* note 487, at 239. *See generally* Marak, *supra* note 185.

492. *See supra* notes 170–171 and accompanying text.

493. *See supra* note 171 and accompanying text.

494. To a degree, crowdfunding shifts game development away from the market-based funding system contemplated by IP law and toward a patronage system where interested parties invest in promising creators. *Cf.* MARK ROSE, AUTHORS AND OWNERS: THE INVENTION OF COPYRIGHT 16–17 (1993).

hours of gameplay, if not an experience that extends indefinitely with ongoing subscription revenues.[495]

None of these obstacles deter non-indie mobile developers. Mobile developers are heterogenous—some are major corporations while others are shoestring operations in other countries—but few identify with the indie community.[496] As a class, mobile games also tend to be relatively simple. Some of the most popular mobile games are built around just one central game mechanic, like the slingshot action of *Angry Birds* or the match-three puzzles of *Candy Crush Saga*.[497] Indie studios that develop an innovative new game mechanic face the risk of mobile developers appropriating the mechanic and releasing competing games. This was the context for the *Threes!* and *2048* story introduced above.[498] The makers of *Threes!* spent months honing the number-combination mechanic for their puzzle game.[499] After release, the makers of *2048* created their own version in mere days.[500] *2048* subsequently dominated the market partly because the developers made the game easier, enticing a wider audience, and in even greater part because they released the game for free and monetized it through in-app advertising.[501] The latter developer won out not because its makers put in the work to make a better game, but because they appropriated a well-honed game mechanic and applied their superior fluency with the marketing and monetization of smartphone apps.[502]

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495. *See supra* Part I.C.1.

496. *See* NICHOLS, *supra* note 62, at 100, 104. Norm enforcement is further complicated by the diversity of contexts in which the industry operates outside the United States. *See* Hailey J. Austin & Robin J.S. Sloan, *Through the Shanzhai Lens: Reframing the Transmedial Copying and Remaking of Games*, 12 BRITISH J. CHINESE STUD., July 2022, at 133, 148 (using a case on Chinese copying to develop "an additional lens through which to understand and interpret game remakes and copying in different cultural contexts").

497. *See* NICHOLS, *supra* note 62, at 93.

498. *See supra* notes 192–196 and accompanying text.

499. *See* Vanhemert, *supra* note 192.

500. *See id.*

501. *See id.*

502. *See id.*

V. IMPLICATIONS

Critics of the negative-space literature argue that formalization of property rights is inevitable for any industry that grows sufficiently profitable or cost intensive.[503] Their position finds confirmation in the perception that the negative-space case studies are confined to niche areas of creative production.[504] French cuisine, tattoos, and comedy are not major industries compared to fixtures of popular culture like movies or music. Nor are recipes, tattoo designs, or jokes expensive to produce; they can be devised by a single individual or small team without need to coordinate the hundreds of workers involved in producing something like a film.[505] The fashion industry is a more complicated example. Fashion is a major industry, but one where trademark law is important even without copyright.[506] Moreover, if we focus on the design of specific garments, as Raustiala and Sprigman did, then we once again find ourselves looking at a type of creative work both inexpensive to produce and within the grasp of an individual designer.[507]

Scholars have yet to dispel this criticism by providing a case study that identifies a major creative industry operating in IP's negative space. To be sure, scholars have identified examples in science and engineering. Yochai Benkler pioneered the study of commons-based peer production, which undergirds development of the open-source software constituting a significant portion of our digital infrastructure.[508] Addressing the negative-space literature directly, Amy Kapczynski detailed the operation of

503. Kapczynski, *supra* note 7, at 1545–46; *see* Barnett, *supra* note 12, at 1755. *See generally* Harold Demsetz, *Toward a Theory of Property Rights*, 57 AM. ECON. REV. 347, 347–57 (1967) (positing property rights emerge whenever benefits of formal property rights exceed costs of administering a property system).

504. *See* Kapczynski, *supra* note 7, at 1545.

505. *See* Barnett, *supra* note 12, at 1785.

506. *See* Dreyfuss, *supra* note 12, at 1450.

507. *See* Raustiala & Sprigman, *The Piracy Paradox*, *supra* note 1, at 1705–17.

508. *See* Benkler, *Coase's Penguin*, *supra* note 408, at 381–84. Wikipedia, a non-fiction peer-production project, has likewise been extraordinarily impactful. *See* YOCHAI BENKLER, THE WEALTH OF NETWORKS: HOW SOCIAL PRODUCTION TRANSFORMS MARKETS AND FREEDOM 70–74 (2006).

the Global Flu Network—the collaborative network responsible for creating the flu vaccine each year—to vindicate the existence of a capital-intensive site of intellectual production of immense social importance that operates without recourse to IP.[509] Yet the implications of these studies for creative production remain unclear. In addition to focusing on scientific rather than creative pursuits, these examples feature modes of production distinct from those typically utilized in negative-space creative industries: they involve the unique dynamics of commons-based peer production and open science rather than those of the copy-resistant markets and community norms featured in fields like fashion and comedy.[510]

Against this backdrop, the video game industry provides a crucial example. The foregoing discussion of video games demonstrates the viability of creative production without extensive IP protection in a high-revenue, capital-intensive industry. Though many prior negative-space case studies were confined to small-scale creative production, study of the game industry shows this mode of production exists in a major entertainment sector. Remarkably, this case study also advances two threads often treated separately in the literature: the AAA sector of the industry instantiates a low-IP equilibrium made possible because features inherent to big-budget games make them copy-resistant while the indie sector features norm-based enforcement.

But the video-game industry is more than just another example. It also calls the assumptions and focus of negative-space scholarship into question. Prior studies have been imprecise in their criteria for the existence and viability of a negative space. Most seem to suggest that it is sufficient to show that creative production occurs in a sector without full IP protection. This sets the bar too low. As the following discussion shows, to truly evaluate creative production without IP requires more robust definitions of success, more attention to the diversity of strategies throughout each industry, and more recognition that the stability of any IP or non-IP regime is contingent. The video game industry also opens a new paradigm

509. *See* Kapczynski, *supra* note 7, at 1542.

510. *See* Benkler, *Coase's Penguin*, *supra* note 408, at 375–76; Kapczynski, *supra* note 7, at 1591–95.

for thinking about the creative industries as a whole. The world is not neatly divided into "full-IP" and negative-space industries. Rather, all creative industries feature a combination of elements protected by IP, elements subject to de facto protection, and elements that are freely appropriable. To insist on an artificial divide is to obscure trends that cut across both sides of the line.

A. Measuring Success

This case study underscores the need to go beyond the threshold question of whether creative production is possible without IP. More recent contributions to the negative-space literature have recognized that the configuration of IP and non-IP protections impacts not only the number of new works produced—the usual concern of IP policy—but also their substance and ultimate social utility.[511] The video game industry provides a rich case study to interrogate these impacts further.

1. Revenues and Productivity

Assessing the revenues and productivity of the current regime relative to potential alternatives is one starting point for analysis, though this assessment is indeterminate with present data. Part of what makes the video game industry attractive for study is its financial success. As a $170 billion-per-year industry, it generates tremendous revenues.[512] It is also successful relative to other sectors of the entertainment industry, as evidenced by how thoroughly its revenues surpass those of Hollywood and the music industry.[513]

There is also the question of productivity. Conventional analysis of creative production—throughout IP scholarship but also in some of the negative-space literature—often seeks to

511. *See, e.g.*, Kapczynski, *supra* note 7, at 1546 ("Magicians and comedians produce creative works, to be sure, but do they produce enough of them, or the right kind, from a social perspective?"); Sprigman, *Positive. Thoughts*, *supra* note 370, at 258–59 (reflecting on how changes in jokes' substance accompanied the emergence of anti-copying norms).

512. *See* Browning, *supra* note 17.

513. *See* sources cited *supra* note 18.

calibrate the system to maximize output.[514] The present arrangement performs well in absolute terms, with thousands of releases on Steam each year, hundreds on consoles, and tens of thousands more for mobile.[515] We do not know how many games would be produced in a counterfactual scenario with greater or lesser formal protection. We have only the assertions from some developers that the present arrangement is preferable to greater IP because formal protection for game mechanics would inhibit the creation of future games.[516]

2. Creative Content

IP scholars and video game critics are of course also concerned with indicators other than raw productivity. The industry's exclusion mechanisms and competitive strategies shape not only how much is made but also the substance of it. This aspect of competition without IP has been observed in comedy.[517] One reason jokes have become more autobiographical, scholars hypothesize, is that it makes them harder to appropriate despite thin copyright protection.[518]

Some trends in game development likewise embody design decisions that make games more copy resistant. Among AAA publishers, intense reliance on sequels takes advantage of formal IP protection via trademark and character copyright; it also leads to more of the same. AAA games also enjoy de facto protection because key elements are expensive to copy. Pursuit of these strategies impacts the substance of what is made beyond encouraging sequels. Consider "open world" gameplay, which provides a sprawling environment for players to explore rather than discrete levels.[519] Many players enjoy the model, but it is expensive to develop this volume of content and it forecloses

514. *See* Bair & Pedraza-Fariña, *supra* note 356, at 1076.

515. *See supra* note 436.

516. *See, e.g.*, Phillips, *supra* note 46, at 149; van Roessel & Katzenbach, *supra* note 179, at 411.

517. *See* Kapczynski, *supra* note 7, at 1547 n.37.

518. *See supra* notes 387–388 and accompanying text; *cf.* Chance Solem-Pfeifer, *'Jokes Seth Can't Tell' Is the Best New Segment in Late Night*, VULTURE (July 15, 2016), https://perma.cc/WQU9-F8CV ("Meyers would be off-brand and out-of-bounds to do the material, but remiss to let it die in the writer's room.").

519. *See* Muncy, *supra* note 145.

the possibilities of a more tightly crafted narrative.[520] Or consider games with full voice acting. Such dialog is more immersive, but also more expensive.[521] It also imposes constraints on the games' writers—they must finalize dialog earlier in development so it can be recorded, and budgetary constraints preclude the breadth and depth of earlier text-based approaches.[522]

Indie developers, by contrast, define their content in opposition to what they perceive as mainstream.[523] This is simultaneously expressive and instrumental: niche or controversial subject matter is less likely to be copied. There may be social value in this insofar as it encourages development of a wider array of perspectives. For the same reasons niche content is unlikely to be copied, however, it is also unlikely to sell many copies, cabining the financial incentives that might support such diversity.

3. Broader Impact

Examining the total social impact of games is beyond the scope of this paper. To be sure, the predominance of market-based incentives skews industry investment toward what is popular, and money spent on first-person shooters might be better spent on games that promote human connection or something entirely different, like renewable energy research.[524] But these objections cut across essentially all creative production, in or out of IP's negative space.[525]

More germane to the present discussion is the observation that the strategies developers have adopted in lieu of IP impact the social utility of games in specific ways. As in the fashion industry, the planned obsolescence of each console generation produces significant waste with consequent harms to the environment and the marginalized communities where that

520. *See id.*

521. *See* NICHOLS, *supra* note 62, at 126.

522. *But see* Shreyas Nivas, *The Promise of Voice AI in Game Development*, VENTUREBEAT (Sept. 14, 2020, 6:16 AM), https://perma.cc/3FPD-FTA6.

523. *See supra* Part IV.C.2.

524. *See* Kapczynski, *supra* note 7, at 1546–47.

525. *See id.*

waste is dumped.[526] Moreover, the move to software as a service, and the ensuing drive to retain players, has driven developers to compete in some instances not by making better games, but by designing more addictive gameplay loops and exploiting common decision-making foibles to keep players coming back day after day.[527]

Developers' pursuit of formal rights other than copyright also has wider societal consequences. For example, the game industry has moved toward non-disclosure agreements (NDAs) to reduce its exposure to copying via employee leaks, but these agreements come at the expense of employee mobility, knowledge sharing, and innovation.[528] As a collateral consequence, these NDAs also reduce industry transparency, thereby insulating it from scrutiny.[529]

B. Success for Whom?

Divergence in competitive strategies between AAA and indie developers also speaks to a larger issue with the study of creative industries: the need to account for variation within each industry. Stepping back to consider who wins in the industry as a whole and within each subsector is necessary to answer the sorts of questions the negative-space literature sets out to answer.

Even basic descriptive claims about whether the industry relies on IP are difficult to establish without attending to intra-industry variation. Prior criticism of the negative-space literature has touched on this. As one scholar observed, top performers in ostensibly low-IP fields like comedy turn to formal IP protections to secure rights in recorded performances.[530] Superstars in the indie gaming sector have likewise turned to trademark, much like AAA developers, after finding themselves

526. *See supra* notes 131, 382 and accompanying text.

527. *See supra* notes 452–454 and accompanying text.

528. *See* JAMIE WOODCOCK, MARX AT THE ARCADE: CONSOLES, CONTROLLERS & CLASS STRUGGLE 64–65 (2019); *see also* Orly Lobel, *Exit, Voice & Innovation: How Human Capital Policy Impacts Equality (& How Inequality Hurts Growth)*, 57 HOUS. L. REV. 781, 784 (2020) (describing NDAs as "impediments to mobility").

529. *See* WOODCOCK, *supra* note 528, at 64–65.

530. *See* Dreyfuss, *supra* note 12, at 1450.

with a hit like *Minecraft* or *Stardew Valley*.[531] Critics who argue greater profits in the industry inevitably lead to greater reliance on formal IP[532] paint with too broad a brush; greater profits for individual actors in an industry may lead to greater reliance on formal IP by those stars *relative to* other participants.

Breaking the analysis apart is also necessary to evaluate normative arguments about whether the configuration of IP and non-IP protections is working. Take the lack of formal IP for game mechanics. Even the straightforward question of how lack of IP impacts financial success depends on the subsector. It seems to be a non-issue for AAA games since gameplay innovations are not their selling point; they borrow mechanics from other games and have theirs borrowed in turn.[533] It is, however, a problem for indie games, whose core innovations often center on gameplay.[534] And it is a boon for non-indie developers working in mobile development because they may freely poach popular indie innovations and monetize them.[535]

Notice also how this segmentation intersects with more complicated questions of how the absence of thicker IP impacts creativity. AAA games face criticism for redundancy and lack of imagination in part because they direct most of their investments toward elements with de facto protection from copying, which may yield games innovative in their technical artistry rather than gameplay or storytelling. Indie developers continue to innovate in aspects like gameplay and theme, though the risk of cloning by outside actors may diminish their incentives to do so.

Some configurations of legal and non-legal protections impact market entry directly. An important critique of IP rights is that they contribute to market concentration, with potentially deleterious effects for innovation.[536] Non-IP exclusionary strategies can, unfortunately, have similar effects. Recall

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531. *See, e.g.*, SCHREIER, *supra* note 143, at 79.

532. *E.g.*, Barnett, *supra* note 12.

533. *See supra* Part I.C.1.

534. JUUL, *supra* note 24, at 34–35; *see supra* Part I.C.2.

535. *See supra* notes 496–502 and accompanying text.

536. For the canonical account, see Kenneth J. Arrow, *Economic Welfare and the Allocation of Resources for Invention*, *in* THE RATE AND DIRECTION OF INVENTIVE ACTIVITY: ECONOMIC AND SOCIAL FACTORS 619 (1962).

Nintendo's response to the crash of 1983.[537] That crash, like the 1977 crash before it, was precipitated by the proliferation of low-quality games including low-effort clones.[538] In the absence of legal protection, Nintendo implemented technological protection and took an active role in choosing which developers would be allowed to bring their games to the popular Nintendo console.[539] Other console manufacturers like Sega followed suit.[540] To enter the market required satisfying a gatekeeper. Now, entry into the mainstream gaming market is regulated by the sheer expense of producing a competitive AAA title.[541] Scholars of innovation theory warn that gatekeeping has stifled the diversity of ideas in other contexts, calling for further investigation of this dynamic in gaming.[542]

The indie sector's reliance on community norms also creates potential barriers to entry. Norms-based protection for a creative industry has significant intuitive appeal; it can be calibrated to the needs of a particular community in a way general copyright law cannot and it can be enforced without the time and expense of litigation.[543] But, as noted above, norms tend to entrench the status of established insiders within a creative community.[544]

C. Contingent Stability

The emerging precarity of indie studios also underscores just how contingent the stability of any protection regime is. The ultimate impact of any configuration of rights depends on wider developments in technology, the market, and society at large.[545]

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537. *See supra* notes 106–109.

538. *See supra* notes 98–101 and accompanying text.

539. *See supra* notes 106–109 and accompanying text.

540. *See supra* notes 113–118 and accompanying text.

541. *See supra* notes 143–146 and accompanying text.

542. *See, e.g.*, BARBARA VAN SCHEWICK, INTERNET ARCHITECTURE AND INNOVATION 320–28 (2010); Mark A. Lemley & Lawrence Lessig, *The End of End-to-End: Preserving the Architecture of the Internet in the Broadband Era*, 48 UCLA L. REV. 925, 945 (2001).

543. *See supra* notes 399–400 and accompanying text.

544. *See supra* note 402 and accompanying text.

545. *See* Perzanowski & Darling, *supra* note 8, at 5–6 ("The dominant narrative of IP largely overlooks the role that social norms, marketplace strategy, and architectural changes can play in shaping an environment

This concern is implicit in the low-IP *equilibrium* terminology used in negative-space scholarship.[546] The absence of copyright in fashion design is viable because several factors come into alignment. When a fashion house introduces a design, it enjoys a first-mover advantage because, for a time, it is the only one selling the design; it takes time before imitators can start production, especially since most fashion houses are situated in the developed world while many garment factories are situated in less-developed nations.[547] They make money by selling to fashion-forward customers during that window. Over time, retailers diffuse the design to the masses, fashion-forward customers demand novelty, and fashion houses introduce something new, repeating the cycle.[548] This equilibrium has strained as advances in communications technology have facilitated ever faster copying.[549] A copyist can snap photos from a Paris runway and text them to a garment factory in seconds. These developments should be of interest even if the equilibrium holds steady because they mark the opportunity to study what makes an equilibrium stable.[550]

The video game industry illustrates this point further because its history is one where the equilibrium has come and

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hospitable to creativity."). *See generally* LAWRENCE LESSIG, CODE VERSION 2.0 (2006).

546. *See, e.g.*, Raustiala & Sprigman, *The Piracy Paradox*, *supra* note 1, at 1698–99; Rosenblatt, *supra* note 7, at 322.

547. *See* Raustiala & Sprigman, *The Piracy Paradox*, *supra* note 1, at 1761–62; Rosenblatt, *supra* note 7, at 346–47 ("[F]irst mover advantages and network effects explain how originators continue to thrive in the absence of strong intellectual property rules . . . ."). *But see* Raustiala & Sprigman, *Faster Fashion*, *supra* note 382, at 542 (discounting this advantage).

548. *See supra* notes 377–380 and accompanying text.

549. *See, e.g.*, Arielle K. Cohen, *Designer Collaborations as a Solution to the Fast-Fashion Copyright Dilemma*, 11 CHI.-KENT J. INTELL. PROP. 172 (2012); Jared Schroeder & Camille Kraeplin, *Give Me a ©: Refashioning the Supreme Court's Decision in* Star Athletica v. Varsity *into an Art-First Approach to Copyright Protection for Fashion Designers*, 26 UCLA ENT. L. REV. 19, 52–53 (2019). *But see* Raustiala & Sprigman, *Faster Fashion*, *supra* note 382, at 541–42 ("Those claims always seemed ahistorical and overblown—the camera and the fax machine made fashion copying rapid decades ago—and now, after more than a quarter-century online and the industry yet to be destroyed, we submit that the Internet has been exonerated . . . .").

550. *See* BJ Ard, *Making Sense of Legal Disruption*, 2022 WIS. L. REV. FORWARD 42, 51 (arguing disruption arises when existing institutions lack the capacity to recalibrate the regime).

gone. Cloning posed a real threat in the *Pong* era because games were simple and cheap to copy.[551] Through the 1980s and 1990s, console manufacturers took measures to increase game quality and weed out low-effort clones.[552] Through design and business strategy, the manufacturers inserted themselves as gatekeepers over which games would be released. By the early 2000s, however, games had become copy resistant because they were expensive to duplicate.[553] Gatekeeping was no longer needed to halt cloning, or at least so it would seem from the dominant players' opening of their consoles to third-party developers.[554] In parallel, however, indie and mobile game developers introduced games that were once again simple and relatively cheap to produce.[555] The threat of cloning likewise reappeared.[556]

These studies also demonstrate that the viability of a particular arrangement in one area of law is often contingent on the state of others. In fashion as in video games, trademarks remain available and they favor established incumbents.[557] Major studios also benefit from patent protection for graphical advances and from trade secret law and its related employee restrictions that help them leverage the talents of designers.[558] The creative industries historically have not been shy about seeking the expansion of copyright.[559] But it may be that we have not seen the same sort of agitation with respect to video games because the established studios are satisfied with the status quo.[560]

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551. *See supra* Part I.A.

552. *See supra* Part I.B.

553. *See supra* Part I.C.1.

554. *See supra* Part I.C.1.

555. *See supra* Part I.C.2.

556. *See supra* Part I.C.2.

557. *See supra* Part IV.B.2.a.

558. *See supra* notes 528–529 and accompanying text.

559. *See, e.g.*, JESSICA LITMAN, DIGITAL COPYRIGHT 55–57 (2001) (detailing industry involvement in the Copyright Act of 1976); *id.* at 128–45 (detailing industry involvement in the Digital Millennium Copyright Act).

560. Indeed, this sort of political equilibrium was the focus of the original fashion case study. *See* Raustiala & Sprigman, *The Piracy Paradox*, *supra* note 1, at 1699 ("When we use that phrase ['low-IP equilibrium'], we mean that the three core forms of IP law . . . provide only very limited protection for fashion designs, and yet this low level of legal protection is *politically stable*." (emphasis added)).

Consider also the impact of other areas of the law on the substance of what is produced. The availability—or lack thereof—of copyright and trademark shape game quality. But so does labor and employment law around issues like the enforcement of NDAs.[561] Pressed to explain why game quality has suffered in recent years, some commentators point to poor working conditions—crunch and financial precarity force studios to rush games out the door before they are finished.[562] Labor and employment law may be just as important as IP law, if not more so, for diagnosing and addressing these problems.

D. Breaking the Binary

Do video games occupy IP's negative space? The question defies easy answers, particularly in the AAA sector. Copyright covers finished games on the consumer side, trademarks and similar rights play a major role throughout development, and this Article has barely touched on the link between patents and the technical artistry of video game hardware and programming. Yet game design itself lacks substantial formal protection and popular themes are freely appropriable as ideas or tropes. This has led to cloning and reliance on non-IP strategies for dealing with cloning. If the use of formal IP for some aspects of game design disqualifies the industry, then the paradigmatic negative-space industries rest on the same shaky foundations. Most consumers experience comedy and magic not through live performances, but through copyrighted recordings.[563] We see high-profile copyright suits over the duplication of tattoo art in films and movies even though litigation is not the standard way of addressing copying among tattoo artists.[564] And fashion, the original object of inquiry, is

561. *See supra* notes 528–529 and accompanying text.

562. *See, e.g.*, Alex Pareene, *Video Games are a Labor Disaster: Why Do Game Studios Keep Imploding?*, NEW REPUB. (June 25, 2021), https://perma.cc/W9YB-ZWFT.

563. *See* Dreyfuss, *supra* note 12, at 1450.

564. *See, e.g.*, Solid Oak Sketches, LLC v. 2K Games, Inc., 449 F. Supp. 3d 333 (S.D.N.Y. 2020); David Kravets, *Hangover Tattoo Lawsuit: Can You Copyright Flesh?*, WIRED (May 27, 2011, 3:25 PM), https://perma.cc/HB9W-7QDP.

the paradigmatic example of an industry centered around trademarks.[565]

Placing industries on one side or the other of the dividing line is not what matters. That taxonomy was important for answering the preliminary question of whether creative production could be sustained without IP. The scholarship has settled that question decisively. The divide is less helpful for the remaining questions, like the impact of a particular configuration of rights on the substance of what is produced, the distributive consequences of that protection regime, and the regime's long-term stability. Every sector of creative production features some elements that are legally protected, some subject to de facto protection because of copy-resistant features or enforceable anti-copying norms, and some elements free for appropriation. What new insights may come from comparison across these sectors? The work has already begun in studies synthesizing the negative-space literature alongside "natural experiments" in fields like music that have experienced de facto reduction in copyright protection due to file-sharing.[566] Scholars have also studied the interplay of proprietary software, which utilizes conventional copyright protection, and open-source software, which takes a contrary stance toward IP.[567] Further work remains to disentangle the formal and de facto protections of the "full-IP" creative industries, how they have changed over time, and how they align with the observations of the negative-space literature.

CONCLUSION

The video game industry vindicates the argument that capital-intensive creative production is possible with thin copyright protection while simultaneously challenging the standard paradigm for studying IP's negative space. The time has come to move past the question of whether such production is possible. Every industry has its own configuration of IP and non-IP protections, and it is now incumbent on those of us working in this space to explore how these regimes shape what

565. *See supra* note 381 and accompanying text.

566. *See* Sprigman, *Copyright and Creative Incentives*, *supra* note 390; *see also* LUNNEY, *supra* note 61, at 74.

567. *See, e.g.*, Benkler, *Coase's Penguin*, *supra* note 408.

the industry produces, what its broader impacts are, and which creators can enter the market. Each of these industries has a history with lessons for how changes in technology, the market, and the works themselves make a particular production regime viable—or push it to fail. Emerging social and technological trends will continue to shape and reshape these industries and test the limits of our frameworks for understanding them.

Beyond its implications for IP's negative space, the video game industry also sets the paradigm for studying creative production in the information age. This is not an argument for video game exceptionalism, but for recognition of greater complexity throughout the creative industries. The study of creative production has focused too long on a dated paradigm modeled on the operation of legacy industries like Hollywood and the recording industry in the twentieth century. Examining the video game industry compels us to recognize and grapple with the complex realities of partial legal rights, overlapping legal and non-legal protections, and the existence of very different regimes for the regulation of competing developers relative to consumers. Only by confronting these challenges can we progress our understanding of how the law intersects with creative production and align our prescriptions for legal reform with the realities of culture and entertainment in the twenty-first century.