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Leveling Up Fair Use: The Ultimate Cheat Code for Video Game Modders in the Wake of Google v. Oracle

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Leveling Up Fair Use: The Ultimate Cheat Code for Video Game Modders in the Wake of Google v. Oracle

Cover Page Footnote

J.D. Candidate, 2024, University of Georgia School of Law. I owe my gratitude to my family—with special thanks to my mom—and my friends for their continued support.

NOTE

**LEVELING UP FAIR USE: THE ULTIMATE CHEAT
CODE FOR VIDEO GAME MODDERS IN THE WAKE
OF *GOOGLE V. ORACLE***

*Parker G. Furman**

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I. INTRODUCTION

The video game industry owes much of its success to the passion of its fans. For some of these impassioned fans the love of video games goes beyond simply playing games, and those players take it upon themselves to modify or create “mods” for games. Modding a game “is ‘the act of changing a game, usually through computer programming, with software tools that are not part of the game.’”¹ The mod is the product. “Modders” are usually third-party fans not employed or paid by developers.² Their drive is fueled by the prospect of expanding and improving a video game for a range of purposes, including extending a game’s shelf life—like the *Fallout* and *The Elder Scrolls* series³—or even reviving once-dead games to newfound popularity.⁴ Mods range in size, complexity, and form.⁵ Mods may add content that expand the life of a game (as will be relevant in *Micro Star v. Formgen*).⁶ Some improve the quality of life of a game by implementing patches to resolve bugs left in the underlying code.⁷

¹ Carl “Ott” Lindstrom, *Mod Money, Mod Problems: A Critique of Copyright Restrictions on Video Game Modifications and an Evaluation of Associated Monetization Regimes*, 11 WM. & MARY BUS. L. REV. 811, 813 (2020) (quoting Nathaniel Poor, *Computer Game Modders’ Motivations and Sense of Community: A Mixed-Methods Approach*, 16 NEW MEDIA & SOC’Y 1249, 1250 (2014)).

² See Jeff Grubb, *Valve Boss Gabe Newell Still Thinks You Should Pay for Game Mods*, VENTUREBEAT (Feb. 10, 2017), <https://venturebeat.com/pc-gaming/valve-boss-gabe-newell-still-thinks-you-should-pay-for-game-mods/>.

³ See Josh Akers, *How Modders Affect the Lifespan of Video Games*, FLUCO BEAT (Apr. 14, 2020), <https://theflucobeat.com/showcase/2020/04/14/how-modders-affect-the-lifespan-of-video-games/>.

⁴ Steven T. Wright, *Digital Necromancy: How Ingenious Modders Quietly Revive Abandoned Multiplayer Games*, GAME SPOT (Apr. 23, 2020), <https://www.gamespot.com/articles/digital-necromancy-how-ingenious-modders-quietly-r/1100-6476400/>.

⁵ Anna Zurawska, *Game Modifications (Player Communities)*, OPEN LIBRARY, <https://ecampusontario.pressbooks.pub/gamedesigndevelopmenttextbook/chapter/game-modifications-player-communities/#:~:text=By%20modifying%20games%2C%20fan%20programmers,the%20mods%20that%20they%20create> (last visited Nov. 23, 2022).

⁶ *Id.*

⁷ Liv Ngan, *Starfield Group Fixing Bethesda’s Bugs Say Their Job Is Tough as Mods Feel an Afterthought*, EUROGAMER (NOV. 6, 2023), <https://www.eurogamer.net/starfield-group-fixing-bethesda-s>

Others add modernization updates like multiplayer functionality to games that were once limited to a single player.⁸ The time and skill required to accomplish these feats is enough to rival that of many developers' actual workloads that went into the base game, yet, under the law, modders do not own their creations and thus cannot claim ownership or compensation.⁹

II. AN OVERVIEW OF VIDEO GAMES' INFLUENCE ON SOCIETY

Video games have become a staple in pop culture and essential to the entertainment industry.¹⁰ They have grown to such prominence that the industry now makes up an over \$300 billion global market.¹¹ To put this in perspective, the global film industry is around \$235 billion¹² and the global music industry is \$31 billion.¹³ Therefore, the gaming industry equals "more than the combined markets for movies and music," and it owes its surge to "mobile gaming and an emphasis on social interaction during the COVID-19 pandemic."¹⁴

The strength of the gaming industry is unbridled yet gaming itself was only invented in the 1950s.¹⁵ The gaming industry has only seen its popularity surge in the last twenty-five years with the introduction of mainstream three-

bugs-say-their-job-is-tough-as-mods-feel-an-afterthought; see Jacqueline Zalace & Justin Pietrodarchi, *Minecraft: 18 Best Quality-Of-Life Mods*, THEGAMER, <https://www.thegamer.com/minecraft-best-quality-of-life-mods/> (last visited Oct. 8, 2023) (discussing quality-of-life mods that improve *Minecraft*).

⁸ See *Multiplayer, Play Singleplayer Games with Your Friends*, UNMODDABLE, <https://unmoddable.com/mod-category/multiplayer/> (last visited Oct. 8, 2023) (providing a platform for mod-makers to distribute their multiplayer mods for single-player games).

⁹ Lindstrom, *supra* note 1, at 823.

¹⁰ Simon Tripp, et al., *VIDEO GAMES IN THE 21ST CENTURY: The 2020 Economic Impact Report*, TECONOMY PARTNERS, LLC 49, <https://www.theesa.com/video-game-impact-map/wp-content/uploads/sites/2/2020/12/Video-Games-in-the-21st-Century-2020-Economic-Impact-Report-Final.pdf> (last visited Nov. 16, 2023); see also *Understanding Media and Culture: An Introduction to Mass Communication*, UNIV. MINN. LIBRS. PUBL'G 10.4, <https://open.lib.umn.edu/mediaandculture/chapter/10-4-the-impact-of-video-games-on-culture/> (last visited Nov. 16, 2023).

¹¹ *Global Gaming Industry Value Now Exceeds \$300 Billion, New Accenture Report Finds*, ACCENTURE (Apr. 29, 2021), <https://newsroom.accenture.com/news/global-gaming-industry-value-now-exceeds-300-billion-new-accenture-report-finds.htm>.

¹² *Global Film and Video Services Market Report 2021*, BUS. WIRE (Sept. 10, 2021, 9:53 AM), <https://www.businesswire.com/news/home/20210910005333/en/Global-Film-and-Video-Services-Market-Report-2021---Opportunities-and-Strategies-to-2030---ResearchAndMarkets.com>.

¹³ Marie Charlotte Götting, *Global Revenue of the Recorded Music Industry 1999-2022*, STATISTA (Aug. 29, 2023), <https://www.statista.com/statistics/272305/global-revenue-of-the-music-industry/>.

¹⁴ *Global Gaming Industry Value Now Exceeds \$300 Billion, New Accenture Report Finds*, *supra* note 11.

¹⁵ *Video Game History*, HIST. (Oct. 17, 2022), <https://www.history.com/topics/inventions/history-of-video-games>.

dimensional video games in 1995 with the release of the Sega Saturn with *Virtua Fighter* and *Sega Rally* and later the even more popular Nintendo 64 releasing with *Super Mario 64*.¹⁶ The gaming industry has continued to grow rapidly and further surpasses its aged competitors while setting historic records along the way.¹⁷ The most profitable piece of entertainment ever created is not a song, movie, television show, or book. It is an interactive video game that, to date, continues to live in glory and has been played by many.¹⁸ This game is *Grand Theft Auto V*, and its developer, Rockstar—owned by holding company Take-Two Interactive—has made an estimated \$6 billion in worldwide revenue since its release in 2013.¹⁹ In comparison, history’s top grossing films only reached a mere \$3 billion with the original *Star Wars* and \$2.8 billion with the release of James Cameron’s film, *Avatar*.²⁰ *Grand Theft Auto V* has survived three console generations, which is to say it has adapted and grown significantly since its creation, and it continues to maintain almost two hundred thousand concurrent players worldwide.²¹ To better understand how this decade-old game has been able to survive so long, we look to the fans, or “passionate gamers” as defined today.

For too long “gamers” or those that simply played any kind of interactive game, whether it be digital, boardgame, or trading card games, were all considered nerds or dorks.²² “Nerd” or “dork” is no longer a derogatory term defining the socially inept.²³ Additionally, gaming no longer requires any dedicated console, PC, or technology beyond that of a smart phone.²⁴ This

¹⁶ *Id.*

¹⁷ Yagumo Morikawa, *The Gaming Industry Sees a Staggering Surge in Popularity*, GLOBALEDGE (Sept. 19, 2023), <https://globaledge.msu.edu/blog/post/57295/the-gaming-industry-sees-a-staggering-surge-in-popularity#:~:text=The%20country%20has%20always%20embraced,a%20hold%20of%20the%20industry.>

¹⁸ Grant Taylor-Hill, *Why Is GTA 5 Still So Popular?*, INSIDER GAMING (Feb. 7, 2023), <https://insider-gaming.com/why-is-gta-5-still-so-popular/>.

¹⁹ Emmét McGonagle, *'Grand Theft Auto V' Has Grossed More Than Any Movie Ever Made*, ESQUIRE (Apr. 11, 2018), <https://www.esquire.com/uk/latest-news/a19743365/grand-theft-auto-v-has-grossed-more-than-any-movie-ever-made/>.

²⁰ *Id.*

²¹ *Monthly Number of Peak Concurrent Players of Grand Theft Auto V on Steam Worldwide as of September 2023*, STATISTA, <https://www.statista.com/statistics/980448/gtav-number-players-steam/> (last visited Sept. 5, 2022).

²² *Basement-Dwellers No More: Gamers Shed the Stereotype Nerd Image*, NBC NEWS DIGITAL (Jul. 10, 2014), <https://www.nbcnews.com/tech/video-games/basement-dwellers-no-more-gamers-shed-stereotype-nerd-image-n149931>.

²³ *Study: Gamers Not Reclusive Nerds*, WIRED (Jul. 7, 2003, 12:00 PM), <https://www.wired.com/2003/07/study-gamers-not-reclusive-nerds/>.

²⁴ Vickie Chen, *Three Mobile Gaming Predictions to Help Developers Stay Ahead in 2023*, FORBES (Jan. 19, 2023), <https://www.forbes.com/sites/forbesbusinesscouncil/2023/01/19/three-mobile-gaming-predictions-to-help-developers-stay-ahead-in-2023/?sh=64466f773f2f>.

means its accessibility is neither region locked nor too dependent on social or economic status.²⁵

Instead, “gamers” is a defined group of people that transcends socioeconomics, age, gender, and mental and physical disabilities.²⁶ The nerdy stigma has mostly been removed from gamers, and now it is fashionable and even trendy to be considered a gamer.²⁷ Model and gamer, Jasmine Asia, is helping tear down traditional gaming stereotypes and make positive social contributions through her video game passion.²⁸ She intends to remedy the stigma calling all gamers “overweight, lazy, [and] incapable of being functioning members of society,” and instead teach others that “gaming can inspire people to be like the heroes they see on screen.”²⁹

Gaming has evolved from a sedentary, basement-dwelling activity to a transformative and transcending enterprise thanks to virtual reality and motion controls encouraging movement, such as *Pokémon Go* (augmented reality collecting game),³⁰ *Beatsaber* (virtual reality rhythm game),³¹ and *Liteboxer VR* (a virtual boxing game)³² to name a few. Both exercise-centric and normal video games played in virtual reality increase the players heart rate, and “[o]n average, players burn about 300 calories per 30 minutes.”³³ In conclusion, the health and

²⁵ See Kelsey Gamble, *I Was Homeless and Video Games Saved My Life*, KOTATKU (Mar. 4, 2016), <https://kotaku.com/i-was-homeless-and-video-games-saved-my-life-1762767569>

(“[I]magine how powerful [gaming] is to someone who has nothing except a hard bench and their own thoughts.”).

²⁶ Edward C. Baig, *Video Games are a 'Great Equalizer' for People with Disabilities*, USA TODAY (May 16, 2019, 11:43 AM), <https://www.usatoday.com/story/tech/2019/05/09/passionate-video-gamers-dont-let-their-disabilities-stop-them/3661312002/>.

²⁷ Frances Solá-Santiago, *What Do Fashion & Gaming Have in Common? It Turns Out, Quite a Lot*, REFINERY 29 (Sept. 21, 2021, 12:59 PM), <https://www.refinery29.com/en-us/2021/09/10632852/gamers-fashion-trend>.

²⁸ Naomi Pike, *The Link Between Fashion and Gaming Is Finally Coming Together Thanks to These Young Women*, VOGUE (May 30, 2019), <https://www.vogue.co.uk/article/girl-gamers-fashion-2019>.

²⁹ *Id.*

³⁰ JV Chamary, *Why 'Pokémon GO' Is the World's Most Important Game*, FORBES (Feb. 10, 2018, 6:59 PM), <https://www.forbes.com/sites/jvchamary/2018/02/10/pokemon-go-science-health-benefits/?sh=6369d0c43ab0>.

³¹ *Rating Notes: Beat Saber*, VIRTUAL REALITY INST. HEALTH & EXERCISE (May 12, 2018), <https://vrhealth.institute/portfolio/beat-saber/>.

³² Carmen Chai, *Can My VR Game Be a Good Workout?*, EVERYDAY HEALTH (Jul. 15, 2022), <https://www.everydayhealth.com/fitness/can-my-vr-game-be-a-good-workout/#:~:text=Yes%2C%20data%20shows%20virtual%20reality,you're%20even%20worki>

³³ *Id.*

social benefits of games are prevalent and have continued to impact other notable areas of our lives, like education.³⁴

The video game industry is capable of teaching, influencing, and benefiting the next generation of youth. Not only are video games capable of teaching generations of youth, but they already have been used as educational tools in classrooms from the 1970s to the 1990s.³⁵ The legendary *Oregon Trail* game, released in 1971, required players to traverse the American West in early 1800s and forced players to make tough decisions to ensure their travelers' survival.³⁶ Since *The Oregon Trail*, education-focused games have been created to keep students engaged while completing out-of-class tasks like homework. For example, students in fields of STEM requiring difficult foundational courses like calculus can utilize the game *Variant: Limits*, created by Texas A&M University, to practice and develop such foundational skills.³⁷

For civic education, games like *Civilization* require players to “be[come] a civic leader and direct the prosperity of nations.”³⁸ Whether it is STEM or civics, these opportunities help introduce students to experimental learning, which teaches students problem solving skills. This allows them to learn from their failures and correct them, and ultimately “develop core skills, such as literacy, how to compete with grace and sportsmanship, and abstract thinking.”³⁹

Further, games may become indispensable learning tools as the global video game market continues to prosper and grow.⁴⁰ For some educators and scholars, the importance of video games is apparent.⁴¹ Dr. Yasmin Kafai, “the Lori and Michael Milken President’s Distinguished Professor of teaching, learning, and leadership, who conceived the Video Games and the Virtual World course in the [University of Pennsylvania] Graduate School of Education in 2008,” has published many works on playing and creating video games for education.⁴² While Dr. Kafai has ushered in video games to help educate her students, she invites other instructors to pursue this field and expand on her legacy.⁴³

³⁴ Katrina Aranas et al., *Report: Benefits of Video Games in K-12 Education*, <https://www.theesa.com/resource/report-benefits-of-video-games-in-k-12-education/> (last visited Nov. 11, 2023).

³⁵ Andre Thomas, *5 Reasons Video Games Should Be More Widely Used in School*, TEXAS A&M TODAY (Sept. 6, 2021), <https://today.tamu.edu/2021/09/06/5-reasons-video-games-should-be-more-widely-used-in-school/>.

³⁶ *Id.*

³⁷ *Id.*

³⁸ *Id.*

³⁹ *Id.*

⁴⁰ Brandon K. Ashinoff, *The Potential of Video Games as a Pedagogical Tool*, FRONTIERS PSYCH. (Sept. 30, 2014), <https://www.frontiersin.org/articles/10.3389/fpsyg.2014.01109/full>.

⁴¹ Brandon Baker, *Gaming as a Teaching Tool*, PENN TODAY (May 6, 2020), <https://penntoday.upenn.edu/news/gaming-teaching-tool>.

⁴² *Id.*

⁴³ Mamta Shah, ELSEVIER, <https://evolve.elsevier.com/education/author/mamta-shah/> (last visited Nov. 23, 2022).

Dr. Mamta Shah works alongside Dr. Kafai as an instructor in the Graduate School of Education at the University of Pennsylvania, and is also a learning scientist for Elsevier, an information and analytic company.⁴⁴ Dr. Shah, like Dr. Kafai, is an advocate of using games as learning tools in the classroom and instructs graduate students in “game-based learning.”⁴⁵ A course in “game-based learning” seeks to introduce graduate students to the use of video games in education.⁴⁶

Dr. Shah believes that “[g]ames have penetrated every aspect of our society—even apart from [K-12] education. Health care education, higher education, training in business, military training, so many of these sectors have adopted games, simulations, or gamification as a means to attain some training or learning goals.”⁴⁷ As our global society further delves into technological dependence, video games will serve as the binding agent and vehicle to transport its players across the globe to interact, to “connect with others and self, and to explore social and civic issues.”⁴⁸

A. VIDEO GAMES: AN INCOME SOURCE FOR CONTENT-CREATION

This portion of the Note provides the background necessary for a holistic understanding of the foundational importance of video games and their place in our society. One aspect of video games that has roots in derivative works and doctrines is mod making. However, copyright case law does not interpret mod making as promoting the useful arts. Instead, it discourages future mod makers from making any financial gain from their work.

In fact, the gaming industry is no stranger to allowing players or “content creators” to profit off a developer’s work in the creation of a video game.⁴⁹ For instance, content creation companies have formed because of video games, such as Rooster Teeth, the creators of *Red vs Blue*, the longest running web-series based on hit video game *Halo*, and other video game content;⁵⁰ Machinima, one of the first MCN or multi-channel networks on YouTube and a pioneer in Machinima

⁴⁴ *Id.*

⁴⁵ Baker, *supra* note 41.

⁴⁶ *Id.*

⁴⁷ *Id.*

⁴⁸ *Id.*

⁴⁹ Ronnie Cohen, *The Mutually Beneficial Relationship Between Game Developers and Social Media Influencers*, MEDIUM (Apr. 13, 2018), <https://medium.com/horseless-cowboy/the-mutually-beneficial-relationship-between-game-developers-and-social-media-influencers-5fe9ce9d5a9c>.

⁵⁰ *Our Story*, ROOSTER TEETH, <https://www.business.roosterteeth.com/our-story> (last visited Nov. 23, 2022).

or video game film-making exhibition and archival;⁵¹ IGN, a popular gaming journalism magazine and content network;⁵² G4TV, the first gaming-focused TV station;⁵³ and GameSpot, a foundational PC gaming forum and information website⁵⁴ to name a few. The success of video games, their widespread acceptance, and the success of these companies share a positive relationship. These companies owe much of their success to the popularity of video games, have provided thousands with jobs, and have pioneered the video game content creation industry.⁵⁵

The purpose of this brief overview of content creation's history is to show how video games are not just games, but also tools for creating content, building a brand, and earning a profit.⁵⁶

III. LEGAL BACKGROUND

Applicable copyright law does not explicitly mention video games in its language,⁵⁷ but game code is without a doubt “comprised of copyrightable elements.”⁵⁸ That said, who owns additional contributions to a video game’s code that improves or alters the original product? To understand this, Zachary Greenberg, author of *Videogame Broadcasting: Exploring A Growing Industry’s Struggle with Copyright Claims*, discusses the laws that apply to copyright ownership rights in video games.⁵⁹

⁵¹ *About Machinima.com*, MACHINIMA (Jan. 1, 2002), <https://web.archive.org/web/20050205023710/http://www.machinima.com/article.php?article=430>; see also *The Origins and Evolution of Machinima*, UCHICAGO VOICES, <https://voices.uchicago.edu/machinima/sample-page/> (last visited Nov. 17, 2023).

⁵² Ryan Geddes, *Origins: The History of IGN*, IGN (Jun. 8, 2021), <https://www.ign.com/articles/2008/01/11/origins-the-history-of-ign>.

⁵³ Melissa Brinks, *How the Tragic Downfall of G4 TV Explains Why Video Game Culture Cannot Survive on Television*, RANKER, (Sept. 23, 2021), <https://www.ranker.com/list/what-happened-to-g4-tv/melissa-brinks>.

⁵⁴ *About Us*, GameSpot, <https://web.archive.org/web/20020802023814/http://gamespot.com/gamespot/stories/flat/0,11963,2703324,00.html> (last visited Nov. 23, 2022).

⁵⁵ *Video Games in the US - Employment Statistics 2004–2029*, IBISWORLD (Sept. 8, 2023), <https://www.ibisworld.com/industry-statistics/employment/video-games-united-states/#:~:text=There%20are%20268%2C698%20people%20employed,years%20between%202018%20and%202023.>

⁵⁶ Udemezue John, *How to Grow as a Gaming Content Creator*, MEDIUM (Oct. 6, 2023), <https://medium.com/internet-billionaires/how-to-grow-as-a-gaming-content-creator-6179e9dcb709>.

⁵⁷ 17 U.S.C. § 102.

⁵⁸ Zachary Greenberg, *Videogame Broadcasting: Exploring A Growing Industry’s Struggle with Copyright Claims*, 1 B.C. INTELL. PROP. & TECH. F. 1, 3 (2022) (citing Tetris Holding, LLC v. Xio Interactive, Inc., 863 F. Supp. 2d 394, 400 (D.N.J. 2012)).

⁵⁹ *Id.*

First, 17 U.S.C. § 102(a) states that copyright protection remains in effect for “original works of authorship fixed in any tangible medium of expression, now known or later developed, from which they can be perceived, reproduced, or otherwise communicated”⁶⁰ Video games are original works of authorship fixed in a tangible medium of expression and categorized as both literary works and audiovisual works under 17 U.S.C. § 102.⁶¹ However, copyright protection of an original work never extends to an idea, only the expression of an idea.⁶² Courts have recognized and supported these assertions. “In *Williams Electronics, Inc. v. Arctic Intern[ational], Inc.* the Third Circuit reasoned that the [t]he [videogame’s] display satisfies the statutory definition of an original “audiovisual” work’ and that a ‘computer program can be the subject of a copyright as a literary text.’”⁶³ The source code itself is considered the literary work while the visuals and sounds of the game are appropriately defined as audiovisual works.⁶⁴ The Third Circuit held in *Apple Computer, Inc. v. Franklin Computer Corp.* that computer code is protectable as a “literary work” under the Copyright Act of 1976 and ultimately can have neither its source code nor object code copied without authorization.⁶⁵

Nevertheless, courts have established limitations to video game copyright protections which include denying protections to “common game mechanics” and “general rules.”⁶⁶ Courts do protect a game’s expressive elements like screenshots, levels, game labels, graphical works, and scores under audiovisual and literary works.⁶⁷

The distinction between source and object code may be understood as the source code being the code a programmer inputs in a coding program, and the object code being the output of those inputs.⁶⁸ The copyrighted visual results of

⁶⁰ 17 U.S.C. § 102(a).

⁶¹ *Id.*; see also Nicole Lamberson, *Find Video Games in Copyright*, LIBR. CONG. BLOGS (Sept. 12, 2023), <https://blogs.loc.gov/copyright/2022/09/find-video-games-in-copyright/> (describing how a video game contains two copyright-protected components that are fixed in the audiovisual material and the computer program that runs the video game itself).

⁶² 17 U.S.C. § 102(b).

⁶³ Greenberg, *supra* note 58 at 3–4 (quoting *Williams Elecs., Inc. v. Artic Int’l, Inc.*, 685 F.2d 870, 874–76 (3d. Cir. 1982)); see also *Tetris Holding, LLC v. Xio Interactive, Inc.*, 863 F. Supp. 2d 394, 400 (D.N.J. 2012) (emphasizing the longstanding belief that elements of computer programs may be afforded copyright protections).

⁶⁴ Greenberg, *supra* note 58, at 4 (citing *Video Games and the Law: Copyright, Trademark, and Intellectual Property*, NEW MEDIA RTS. (Oct. 27, 2020, 8:42 PM), https://www.newmediarights.org/guide/legal/Video_Games_law_Copyright_Trademark_I ntellectual_Property).

⁶⁵ *Apple Comput., Inc. v. Franklin Comput. Corp.*, 714 F.2d 1240, 1248 (3d Cir. 1983).

⁶⁶ Greenberg, *supra* note 58, at 4 (citing *Affiliated Hosp. Prods., Inc. v. Merdel Game Mfg. Co.*, 513 F.2d 1183, 1188—89 (2d. Cir 1975)).

⁶⁷ *Id.*

⁶⁸ 15 C.F.R. § 772.1 (1996).

source code after being compiled may include a game's "graphical characters, cutscenes, and levels."⁶⁹

Lastly, 17 U.S.C. § 106 provides the exclusive rights afforded to copyright holders that harm the rights of modders or anyone without the copyright holder's authorization that wishes to copy a copyrighted work, create derivative works, distribute copyrighted work, or display the copyrighted work in public.⁷⁰

IV. DEFENSES: THE FAIR USE DOCTRINE AND DERIVATIVE WORKS

As it appears, the potential to grant modders monetization rights over their creations is slim.⁷¹ Mod makers seeking to reprieve and profit from their creations may rely on derivative work protection⁷² and the fair use doctrine.⁷³ 17 U.S.C. 101 defines a derivative work:

A derivative work is a work based upon one or more preexisting works, such as a translation, musical arrangement, dramatization, fictionalization, motion picture version, sound recording, art reproduction, abridgment, condensation, or any other form in which a work may be recast, transformed, or adapted. A work consisting of editorial revisions, annotations, elaborations, or other modifications which, as a whole, *represent an original work of authorship*, is a "derivative work."⁷⁴

The fair use doctrine under 17 U.S.C. § 107 can be understood as defending against infringement of copyright for "the fair use of copyrighted works . . . for purposes such as criticism, comment, news reporting, scholarship, or research. . . ."⁷⁵ Courts "consider four factors when applying the fair use test: (1) the purpose and character of the use, (2) the nature of the copyrighted work, (3) the amount used in relation to the copyrighted work as a whole, and (4) the effect of the use upon the potential market."⁷⁶ The courts do not require all factors be present to successfully defend against an infringement claim, as "a lack of the fourth factor is still sufficient for a fair use finding."⁷⁷

⁶⁹ Greenberg, *supra* note 58, at 4 (citing *Midway MFG. Co. v. Bandai-America, Inc.*, 546 F. Supp. 125, 151 (D.N.J. 1982)).

⁷⁰ *Id.*; 17 U.S.C. § 106.

⁷¹ See James Simmons, *Do Mod Developers Get Paid?*, STEPOFWEB (Aug. 2023), <https://stepofweb.com/do-mod-developers-earn-money/> (discussing how mod makers may face legal consequences if they alter a game and thus rarely earn formal compensation).

⁷² 17 U.S.C. § 106.

⁷³ 17 U.S.C. § 107.

⁷⁴ 17 U.S.C. § 101 (emphasis added).

⁷⁵ 17 U.S.C. § 107.

⁷⁶ Greenberg, *supra* note 58, at 4-5.

⁷⁷ *Id.* at 5 (citing *Hosseinzadeh v. Klein*, 276 F. Supp. 3d 34, 41, 46-47 (S.D.N.Y. 2017)).

While no one factor is dispositive, evidence of transformative use is at “the heart of any fair use inquiry,” requiring the claimant to “[add] something new with further purpose or different character.”⁷⁸ To invoke fair use, this addition must be “more than merely repackaging or republishing the original work.”⁷⁹ Arguably, when applying the court’s interpretation of 17 U.S.C. § 107 to video game modification, the additions made ought to be considered as going far beyond mere repackaging or republishing of an original work.

Next, this Note will discuss the applicable case law that has ruled over video games since their inception. The jurisprudence is rather immature, yet mod makers have not been deterred in their efforts to seek legal protections for their creations. The following section will highlight the highs and lows of mod makers’ success in achieving legal protections.

V. APPLICABLE CASE LAW GOVERNING VIDEO GAMES

Legal scholar Carl Lindstrom summarizes the three federal circuit court cases that involve game modifications.⁸⁰ Lindstrom claims these circuit court holdings in the aforementioned cases establish key principles regarding video game copyrightability.⁸¹ For instance, mods can be derivative works,⁸² as “impermanent mods that do not affect underlying game code *do not necessarily constitute infringement*,”⁸³ and permanent mods affecting the underlying game code likely constitute infringement.⁸⁴

A. *MIDWAY V. ARTIC*

Lindstrom outlines the *Midway* case, describing how Midway Manufacturing (plaintiff manufacturer of arcade cabinets and games) sued Artic International, the company who sold circuit boards that altered Midway’s games when installed

⁷⁸ *Id.* (citing *Hosseinzadeh*, 276 F. Supp. 3d at 41).

⁷⁹ *Id.* (citing *Hosseinzadeh*, 276 F. Supp. 3d at 42).

⁸⁰ See Lindstrom, *supra* note 1, at 817 (listing the relevant cases as *Midway Mfg. Co. v. Artic Int’l, Inc.*, 704 F.2d 1009 (7th Cir. 1982) [hereinafter *Midway*]; *Lewis Galoob Toys, Inc. v. Nintendo of Am., Inc.*, 964 F.2d 965 (9th Cir. 1992) [hereinafter *Galoob*]; and *Micro Star v. Formgen Inc.*, 154 F.3d 1107 (9th Cir. 1998) [hereinafter *Micro Star*]).

⁸¹ *Id.*

⁸² See *Midway*, 704 F.2d at 1013 (“[T]he speeded-up ‘Galaxian’ game that a licensee creates with a circuit board supplied by the defendant is a derivative work based upon ‘Galaxian.’”); see also *Micro Star*, 154 F.3d at 1112 (“Because the audiovisual displays assume a concrete or permanent form in the MAP files, *Galoob* stands as no bar to finding that [the files] are derivative works.”).

⁸³ Lindstrom, *supra* note 1, at 817 (emphasis added); see also *Lewis Galoob Toys, Inc.*, 964 F.2d at 968 (“[T]he Game Genie cannot produce an audiovisual display; the underlying display must be produced by a Nintendo Entertainment System and game cartridge It cannot be a derivative work.”).

⁸⁴ Lindstrom, *supra* note 1, at 817 (citing *Micro Star*, 154 F.3d at 1112).

into Midway's arcade cabinets.⁸⁵ Defendant's mod, when installed into plaintiff's arcade cabinet, would speed up the rate of play for some games, like the shooting game *Galaxian*.⁸⁶ Defendant claimed that their speed mod did not constitute an infringing derivative work because it was similar to increasing the speed a record is played.⁸⁷

The court conceded that a sped up record "would probably not be an infringement of the record company's copyright in the record."⁸⁸ However, the court pushed back on the idea that sped up video games and records are analogous stating "[t]here is a big demand for speeded-up video games . . ." and that "game copyright owners would undoubtedly like to lay their hands on some of that extra revenue."⁸⁹ Therefore, "it cannot be assumed that licensees are implicitly authorized to use speeded-up circuit boards in the machines plaintiff supplies."⁹⁰ The mere presence of a market demand for defendants' primitive mod resulted in a copyright infringement and thus granted the copyright owner the ability "to monopolize it on the same theory that he is entitled to monopolize the derivative works specifically listed in Section 101."⁹¹

B. GALOOB: A SILVER LINING POST-MIDWAY?

Midway did not do mod makers any favors under the law, but *Galoob* provided hope to mod makers when the Ninth Circuit affirmed the lower court's finding for the mod makers rather than the copyright holder.⁹² The "pyrrhic" victory for the alleged infringers in *Galoob* is apparently narrow.⁹³

Galoob involved a third-party physical device that attached to cartridge-based video games, like those made by Nintendo, called the Game Genie.⁹⁴ The case

⁸⁵ *Id.* (citing *Midway Mfg. Co.*, 704 F.2d at 1010-11).

⁸⁶ *Id.* at 817-818 (citing *Midway*, 704 F.2d at 1010).

⁸⁷ *Midway*, 704 F.2d at 1013 (analogizing the sped up *Galaxian* video game to a sped-up record).

⁸⁸ *Id.*

⁸⁹ *Id.*

⁹⁰ *Id.*

⁹¹ *Id.* at 1014.

⁹² *Lewis Galoob Toys, Inc. v. Nintendo of Am., Inc.*, 964 F.2d 965, 972 (9th Cir. 1992) (affirming the lower court's finding that Galoob did not violate the Copyright Act and its Game Genie device was protected under fair use); *see also* *Lewis Galoob Toys, Inc. v. Nintendo of Am., Inc.*, 780 F. Supp. 1283, 1286 (N.D. Cal. 1991) (finding that the Game Genie did not constitute a derivative work, and even if it did, the Genie would be protected under fair use).

⁹³ Lindstrom, *supra* note 1, at 818.

⁹⁴ *Id.* (citing *Galoob*, 964 F.2d at 967); *see also* Brian Benchoff, *How the Game Genie Works*, HACKADAY (Oct. 7, 2013), <https://hackaday.com/2013/10/07/how-the-game-genie-works/> [https://perma.cc/Q6NE-GL9Y] (explaining how to operate the Game Genie); Mike Master, *NES Game Genie Technical Notes*, SOURCEFORGE, <https://tuxnes.sourceforge.net/gamegenie.html> (last visited Nov. 23, 2022) (discussing the

centered around the Game Genie device specifically made for the Nintendo Entertainment System,⁹⁵ a Nintendo video game console released in North America in 1985.⁹⁶

This specific Game Genie allowed a player to “alter up to three features of a Nintendo game,” the features included: “number of lives of the player's character, . . . the speed at which the character moves, and allow the character to float above obstacles.”⁹⁷ Players could experiment with the variation of codes he or she entered to alter the game temporarily.⁹⁸

Nintendo sued the seller and manufacturer of the Game Genie, Lewis Galoob Toys, for alleged derivative copyright infringement stemming from the alterations its Game Genie device made to Nintendo's protected work.⁹⁹ Galoob defended its Game Genie device in the lower court, stating “Galoob seeks a declaration that use of the Game Genie by individuals in their own homes does not constitute infringement of Nintendo's copyrights.”¹⁰⁰ Galoob further requested “that Galoob's marketing, distribution, and sale of the Game Genie is therefore not contributory infringement of those copyrights.”¹⁰¹ The lower court agreed,¹⁰² and Nintendo appealed but failed to persuade the Ninth Circuit Court of Appeals to reverse the lower court's holding for Galoob.¹⁰³

The Ninth Circuit affirmed the lower court for the following two key reasons. First, the Game Genie device did not constitute an independent derivative work because it was incapable of creating any audiovisual display and “merely enhance[d] the audiovisual displays (or underlying data bytes) that originate in Nintendo game cartridges.”¹⁰⁴ While derivative works do not require fixation,¹⁰⁵ the Game Genie did not create any fixed audiovisual work, it merely manipulated preexisting code altering Nintendo's audiovisuals.¹⁰⁶

Second, the court found the temporary and non-fixed nature of the audiovisual enhancement that the Game Genie created did create a profitable

technical workings of the Game Genie); John Szczepaniak, *The Story Of The Game Genie, The Cheat Device Nintendo Tried (And Failed) To Kill*, NINTENDOLIFE (Dec. 26, 2021), <https://www.nintendolife.com/features/the-story-of-the-game-genie-the-cheat-device-nintendo-tried-and-failed-to-kill> (providing a digestible and thorough historical overview of the Game Genie).

⁹⁵ *Galoob*, 964 F.2d at 967.

⁹⁶ Rodrigo Copetti, *Nintendo Entertainment System (NES) Architecture*, COPETTI SITE (Dec. 26, 2021), <https://www.copetti.org/writings/consoles/nes/>.

⁹⁷ *Galoob*, 964 F.2d at 967.

⁹⁸ *Id.*

⁹⁹ *Galoob*, 780 F. Supp. at 1286.

¹⁰⁰ *Id.*

¹⁰¹ *Id.*

¹⁰² *Id.* at 1298.

¹⁰³ *Galoob*, 964 F.2d at 972.

¹⁰⁴ *Id.* at 968.

¹⁰⁵ *Id.*

¹⁰⁶ *Id.* at 967.

\$150 million market desirable to Nintendo, but this was insufficient evidence to satisfy the Copyright Act's definition of "fixed."¹⁰⁷ When the Game Genie device is unplugged from the Nintendo it is useless, similar to that of a spell-checker without a word processor.¹⁰⁸

The court notably distinguishes the Seventh Circuit's holding in *Midway*, stating:

"[defendant's] chip substantially copied and *replaced* the chip that was originally distributed by Midway. . . . The Game Genie does not physically incorporate a portion of a copyrighted work, nor does it supplant demand for a component of that work."¹⁰⁹

The Midway chip was understood to be of a permanent and fixed nature when installed in the arcade cabinet,¹¹⁰ unlike the temporary and flexible Game Genie.¹¹¹

Next, the court in *Galoob* agreed with the lower court's finding that "even if the audiovisual displays created by the Game Genie are derivative works, Galoob is not liable under 17 U.S.C. § 107 because the displays are a fair use of Nintendo's copyrighted displays."¹¹² Under the fair use analysis, Galoob passed under the fourth and "single most important element of fair use," called the effect on the market.¹¹³ The court in *Galoob* "focused on the consumer's behavior, not Galoob's,"¹¹⁴ agreeing with the district court's finding that "a family's use of a Game Genie for private home enjoyment must be characterized as a non-commercial, nonprofit activity."¹¹⁵

The court then analogized the Game Genie device to Sony's Betamax, a recording device that allows a consumer to "view copyrighted works at a more

¹⁰⁷ *Id.* at 968–69.

¹⁰⁸ *Id.* at 969.

¹⁰⁹ *Galoob*, 964 F.2d at 969.

¹¹⁰ *See* *Midway Mfg. Co. v. Artic Int'l, Inc.*, 704 F.2d 1009, 1010 (7th Cir. 1983) (explaining how the defendant's modded circuit board was installed in place of plaintiff's "Galaxian" circuit board implying difficult removal as compared to the toolless Game Genie).

¹¹¹ *See* *Galoob*, 964 F.2d at 967 (discussing that the Game Genie device was installed temporarily between the Nintendo Entertainment System and the Nintendo game cartridge).

¹¹² *Id.* at 969.

¹¹³ *Harper & Row Publishers, Inc. v. Nation Enters.*, 471 U.S. 539, 566 (1985); *see also* Pierre N. Leval, *Toward A Fair Use Standard*, 103 HARV. L. REV. 1105, 1124 (1990) (discussing the Supreme Court's reliance upon the market factor and asserting that the effect on the market may be "overstated").

¹¹⁴ Lindstrom, *supra* note 1, at 819 (citing *Galoob*, 964 F.2d at 970).

¹¹⁵ *Galoob*, 964 F.2d at 970 (quoting *Lewis Galoob Toys, Inc. v. Nintendo of Am., Inc.*, 780 F. Supp. 1283, 1293 (N.D. Cal. 1991)).

convenient time,”¹¹⁶ similar to the superior Video Home System (“VHS”).¹¹⁷ The court in *Sony Corp. of America v. Universal City Studios, Inc.*,¹¹⁸ held that the non-commercial time-shifting¹¹⁹ Sony Betamax device did not infringe upon Universal Studios copyrighted works.¹²⁰ So, the *Galoob* court, using the *Sony Corp. of America* holding, found “that the Game Genie implicates a market that Nintendo is not competing in (that is, the market for at-home, non-commercial alterations) and cannot reasonably be anticipated to compete in.”¹²¹ Regardless of whether the court found the Game Genie to be a derivative work, it satisfied the fair use analysis and did not infringe Nintendo’s copyrighted works.¹²²

C. *MICRO STAR V. FORMGEN.*

Decades have passed since the Ninth Circuit held in *Micro Star* that a work was likely an infringing derivative work.¹²³ Plaintiff’s work, “Nuke It” (“N/I”), was a collection of user-created maps—made with the developer-furnished “Build Editor”¹²⁴—for defendant’s “Duke Nukem 3D” (“Duke Nukem”) game.¹²⁵ The packaging of N/I contained Duke Nukem screenshots likely to support a finding that the infringing derivative work was not protected under the fair use doctrine provided in 17 U.S.C. § 107.¹²⁶

Notably, the developers provided the Build Editor tool to encourage players to create their unique levels and upload them online for other players to download free of cost.¹²⁷ The user-generated maps were not created by the plaintiff.¹²⁸ The plaintiff merely collected 300 user-created maps and burned them onto N/I to be commercially sold.¹²⁹ The plaintiff also packaged N/I in a box laden with screenshots of these downloaded maps.¹³⁰ The court found

¹¹⁶ *Id.* at 971.

¹¹⁷ See Helen Dai, *VHS vs Betamax: Why Did Betamax Fail?*, MINITool (Aug. 4, 2023), <https://videoconvert.minitool.com/news/vhs-vs-betamax.html> (describing the history of two different time-shifting technologies).

¹¹⁸ 464 U.S. 417 (1984).

¹¹⁹ See Mary McMahon, *What is Time-Shifting?*, EASYTECHJUNKIE (Oct. 27, 2023), <https://www.easytechjunkie.com/what-is-time-shifting.htm> (defining and discussing what time-shifting is and the history of the term).

¹²⁰ *Sony Corp. of Am. v. Universal City Studios, Inc.*, 464 U.S. 417, 456 (1984).

¹²¹ Lindstrom, *supra* note 1, at 820 (citing *Galoob*, 964 F.2d at 972).

¹²² *Galoob*, 964 F.2d at 972.

¹²³ *Micro Star v. Formgen, Inc.*, 154 F.3d 1107 (1997).

¹²⁴ See *id.* at 1109 (describing the developer-provided tool that allows and encourages players to create their own levels).

¹²⁵ *Id.*

¹²⁶ *Id.* at 1114.

¹²⁷ *Id.*

¹²⁸ *Id.* at 1109.

¹²⁹ *Micro Star*, 154 F.3d at 1109.

¹³⁰ *Id.*

plaintiff's N/I was neither protected under the fair use doctrine nor a derivative work created under an implied license merely because one purchases a license to defendant's game.¹³¹

Micro Star, having dealt with the work of fiction rather than fact, led the court to find a fair use defense much less likely to prevail.¹³² Because the unique fantasy world defendant created included “aliens, radioactive slime[,] and freezer weapons,” the court ruled against plaintiff and its N/I creation.¹³³ A work made purely for financial gain, like plaintiff's N/I, fell in line with the idea that “every commercial use of copyrighted material is presumptively an unfair exploitation of the monopoly privilege that belongs to the owner of the copyright.”¹³⁴ The only entity that can allow the monetization and commercialization of its copyright is itself.¹³⁵ Lastly, the court noted the plaintiff's marketing and sale of its N/I product “impinged on [defendant's] ability to market new versions of [the Duke Nukem 3D] story” and only the defendant author “ha[d] a right to enter that market.”¹³⁶

Since *Micro Star* was decided, there has not been an incredible depth of case law expanding on the legality and copyrightability of third-party video game modifications. This Note intends to apply the decision and expansion of the fair use doctrine in the recent Supreme Court case, *Google LLC v. Oracle America, Inc.*, 141 S. Ct. 1183 (2021), to video game modifications.

VI. GOOGLE V. ORACLE

In April 2021, the Supreme Court in *Google* heard a case that would update outdated copyright law in the age of rapid technological advancements.¹³⁷ The Court held that Google copying Java SE's Application Programming Interface (“API”)—which Oracle holds the copyright to—was in fact fair use of the API.¹³⁸

In 2005, Google acquired Android, a mobile smartphone company.¹³⁹ Google announced in 2007 that it would be creating a new operating system for mobile devices.¹⁴⁰ This new mobile software platform was based on Oracle America's—at the time still Sun Microsystems—copyright protected Java SE computer

¹³¹ *Id.* at 1113–14.

¹³² *Id.* at 1113.

¹³³ *Id.* at 1113–14.

¹³⁴ *Id.* (quoting *Sony Corp. of Am. v. Universal City Studios, Inc.*, 464 U.S. 417, 451 (1984)).

¹³⁵ *Id.* at 1110.

¹³⁶ *Micro Star*, 154 F.3d at 1113 (citations omitted).

¹³⁷ *Copyright Act of 1976 - Intellectual Property - Fair Use - Google LLC v. Oracle America, Inc.*, 135 HARV. L. REV. 431 (2021).

¹³⁸ *Google LLC v. Oracle Am., Inc.*, 141 S. Ct. 1183, 1187 (2021) [hereinafter *Google*].

¹³⁹ *Id.*

¹⁴⁰ *Oracle Am., Inc. v. Google Inc.*, 872 F. Supp. 2d 974, 975 (N.D. Cal. 2012) [hereinafter *Oracle*].

platform which was created using the popular Java computer programming language.¹⁴¹ Since the search engine company was breaking into the smartphone market, Google sought to create a familiar software platform to lure developers familiar with the Java language and the Android application development process.¹⁴²

Google wanted to streamline developer's development process of a new yet familiar software platform for future mobile devices.¹⁴³ This included Google creating "an Android platform that was free and open, such that software developers could use the tools found there free of charge."¹⁴⁴ The goal was to create an accessible platform developers familiar with the Java language would join to expand Google's mobile consumer market.¹⁴⁵

Before Google began development on its own platform, there were talks between "Java's developer Sun Microsystems to license Java technologies."¹⁴⁶ Unfortunately, negotiations failed because of "Sun's insistence that 'all programs written on the Android platform be interoperable.'"¹⁴⁷ Since this disrupted Android and Google's "free and open business model," Google began to develop its own independent platform without acquiring Sun's license to the entire Java platform.¹⁴⁸

After Google failed licensing negotiations with Sun, "Google copied roughly 11,500 lines of code from the Java SE program."¹⁴⁹ These copied lines make up the API,¹⁵⁰ which millions of Android programmers were already familiar with.¹⁵¹ Ultimately, APIs simplify the development process.¹⁵²

¹⁴¹ *Google*, 141 S. Ct. at 1187.

¹⁴² *Id.* at 1190.

¹⁴³ *Id.* at 1187.

¹⁴⁴ *Id.* at 1190.

¹⁴⁵ *Id.*

¹⁴⁶ *Copyright Act of 1976 - Intellectual Property - Fair Use - Google LLC v. Oracle America, Inc.*, *supra* note 137, at 432.

¹⁴⁷ *See id.* (defining "interoperable" as Sun's requirement that all programs written on the Android platform be capable of running on any desktop, laptop, or other mobile device regardless of the hardware inside (quoting *Google*, 141 S. Ct. at 1190-91)).

¹⁴⁸ *Google*, 141 S. Ct. at 1191.

¹⁴⁹ *Id.* at 1186.

¹⁵⁰ An API "allow[s] programmers to use . . . prewritten code to build certain functions into their own programs, rather than write their own code to perform those functions from scratch." *Google*, 141 S. Ct. at 1191 (quoting *Oracle Am., Inc. v. Google, Inc.*, 750 F.3d 1339, 1349 (2014)); *see generally*, *What is an API (Application Programming Interface)?*, AWS, <https://aws.amazon.com/what-is/api/> (last visited Nov. 19, 2023) (defining API as mechanisms enabling software to communicate with one another by utilizing a set of definitions and protocols).

¹⁵¹ *Google*, 141 S. Ct. at 1186.

¹⁵² *See What is an API (Application Programming Interface)?*, *supra* note 150 (describing how APIs leverage existing code to improve development efficiency).

To execute tasks within an API, there are various types of code that facilitate communication throughout the program.¹⁵³ For instance, the “implementing code” that makes up the majority of Google’s independently created API, was not at issue at trial and functions by “tell[ing] the computer how to execute the particular task you have asked it to perform (such as telling you, of two numbers, which is the higher).”¹⁵⁴

The Court further explained how implementing code requires “method calls” which correspond to certain tasks and are called to “help you carry out the task by choosing those programs written in implementing code that will do the trick,” like finding the program to “find the higher of two numbers.”¹⁵⁵ If developers are familiar with Java, then they “already know countless method calls that allow them to invoke countless tasks.”¹⁵⁶ The use of these Java method calls become routine, and they are much easier to use as opposed to an unfamiliar and obscure language or platform.¹⁵⁷ Then there is “declaring code” which the programmer actually types to aid the method call in locating and invoking the implementing code needed to “instruct the computer how to carry out a particular task”.¹⁵⁸ The “[d]eclaring code also reflects how Java’s creators ‘arranged and grouped’ different tasks, an organizational scheme known as ‘structure, sequence, and organization’(SSO).”¹⁵⁹ The declaring code—identified by the Court as the 11,500 lines copied by Google¹⁶⁰—was part of the API and was the subject of litigation.¹⁶¹ While Sun did not sue Google for copyright infringement for these copied lines, Oracle did.¹⁶²

A. PROCEDURAL HISTORY

In 2010 Oracle purchased Sun, which meant Oracle acquired copyright in the Java API Sun created.¹⁶³ Oracle sued Google for copyright and patent infringement because of the copied lines of code Google used to create Android

¹⁵³ *Google*, 141 S. Ct. at 1190-93.

¹⁵⁴ *Id.* at 1191 (citing *Oracle*, 872 F. Supp. 2d at 979-80).

¹⁵⁵ *Id.* at 1192.

¹⁵⁶ *Id.*

¹⁵⁷ *Id.*; see *Copyright Act of 1976 - Intellectual Property - Fair Use - Google LLC v. Oracle America, Inc.*, *supra* note 137, at 432 n.16 (“‘Declaring code’ refers to the code that identifies a command’s name, inputs, and outputs, whereas ‘implementing code’ stands in for ‘implementations,’ the ‘step-by-step instructions to perform each task.’” (first citing *Oracle*, 872 F. Supp. 2d at 978-979 (N.D. Cal. 2012); then citing Brief Amici Curiae of 83 Computer Scientists in Support of Petitioner at 3, *Google*, 141 S. Ct. 1183 (No. 18-956)).

¹⁵⁸ *Google*, 141 S. Ct. at 1192.

¹⁵⁹ *Copyright Act of 1976 - Intellectual Property - Fair Use - Google LLC v. Oracle America, Inc.*, *supra* note 137, at 432 (quoting *Google*, 141 S. Ct. at 1191-92).

¹⁶⁰ *Google*, 141 S. Ct. at 1204.

¹⁶¹ *Id.* at 1192.

¹⁶² *Id.* at 1194.

¹⁶³ *Id.*

and thus began the “smartphone war.”¹⁶⁴ This erupted a decade-long series of copyright and patent infringement cases tried by a jury.¹⁶⁵ The District Court for the Northern District of California handled the jury trial in phases to improve comprehension of the complex issues of the case.¹⁶⁶ In the first phase, the judge “would decide issues of copyrightability and Google's equitable defenses,” while “the jury would decide infringement, fair use, and whether any copying was de minimis.”¹⁶⁷

In the first phase, a jury found for Google, “rejected Oracle’s patent claims[,] and found copyright infringement only with respect to ‘nine lines of code.’”¹⁶⁸ The jury was deadlocked on whether Google was protected by a fair use defense.¹⁶⁹ The district court would find for Google, reasoning “that the API portion it had copied was an unprotected method of operation under the Copyright Act.”¹⁷⁰ The district court reasoned under Section 102(b) of the Copyright Act that Oracle’s original arrangement of thousands of commands was “a creative taxonomy” and “[did] not change its character as a method of operation;” thus, no protection was justified.¹⁷¹

On appeal, the Federal Circuit affirmed and reversed in part the district court’s holding.¹⁷² The Federal Circuit “found that the declaring code and the SSO were copyrightable because Google was not bound to the naming conventions and

¹⁶⁴ *Oracle*, 872 F. Supp. 2d at 975. The “smartphone war” was a decade-long series of copyright and patent infringement cases tried to a jury. See Florian Mueller, *Apple vs Android 10.12.02*, SCRIBD, <https://www.scribd.com/document/44759893/Apple-vs-Android-10-12-02> (last visited Nov. 2, 2022) (describing patent litigation between Apple and Android); *Nokia Sues Apple over iPhone's Use of Patented Wireless Standards*, APPLEINSIDER (Oct. 22, 2009), https://appleinsider.com/articles/09/10/22/nokia_sues_apple_over_iphones_use_of_patented_wireless_standards.html (describing patent suit by Nokia against Apple for allegedly infringing on Nokia’s ten patents relating to the Global System for Mobile communications which helps the smartphone communicate wirelessly); Nilay Patel, *Apple vs HTC: a patent breakdown*, ENGADGET (Mar. 2, 2010), <https://www.engadget.com/2010-03-02-apple-vs-htc-a-patent-breakdown.html> (highlighting the influential Apple versus HTC patent infringement suit where Apple sued HTC for twenty patent infringement violations that range from operating system level patents to hardware patents).

¹⁶⁵ *Id.*

¹⁶⁶ *Oracle*, 872 F. Supp. 2d at 975.

¹⁶⁷ *Id.*

¹⁶⁸ *Copyright Act of 1976 - Intellectual Property - Fair Use - Google LLC v. Oracle America, Inc.*, *supra* note 137, at 432-33 (quoting *Oracle*, 872 F. Supp. 2d at 976).

¹⁶⁹ *Google*, 141 S. Ct. at 1194.

¹⁷⁰ *Copyright Act of 1976 - Intellectual Property - Fair Use - Google LLC v. Oracle America, Inc.*, *supra* note 137, at 433 (quoting *Oracle*, 872 F. Supp. 2d at 999-1000).

¹⁷¹ *Oracle*, 872 F. Supp. 2d at 999-1000.

¹⁷² *Oracle Am., Inc. v. Google Inc.*, 750 F.3d 1339, 1348 (Fed. Cir. 2014) [hereinafter *Oracle Am.*].

structure of the Java API.¹⁷³ While the copied declaring code only made up 0.4% of Google's API,¹⁷⁴ the court found Google could have, and perhaps should have, independently created the declaring code.¹⁷⁵ The Federal Circuit did not find sufficient evidence to support a de novo review "of Google's affirmative defense of fair use. . . . [W]e remand this question to the district court."¹⁷⁶ Google then appealed to The Supreme Court, but had its petition for a writ of certiorari denied.¹⁷⁷

The second jury returned with a verdict in Google's favor, finding Google's use of Java's API constituted fair use.¹⁷⁸ Oracle moved for a renewed judgement as a matter of law and a new trial.¹⁷⁹ Both motions were denied.¹⁸⁰ Oracle then appealed back to the Federal Circuit where the decision was reversed and remanded.¹⁸¹

The Federal Circuit ultimately reviewed the issue of fair use de novo.¹⁸² Under de novo review, the court "reject[ed] the jury's findings in favor of Google on three of the four fair use factors"¹⁸³ and found "Google's use of the 37 Java API packages *was not fair as a matter of law.*"¹⁸⁴ After Oracle celebrated its first bout of success, the Supreme Court finally granted Google's motion for certiorari.¹⁸⁵

B. GOOGLE'S FAIR USE DEFENSE

The Supreme Court reversed and remanded the Federal Circuit Court's decision.¹⁸⁶ First, the Court pointed towards the Constitution stating "copyright and patents . . . are to 'promote the Progress of Science and useful Arts, by

¹⁷³ *Copyright Act of 1976 - Intellectual Property - Fair Use - Google LLC v. Oracle America, Inc.*, *supra* note 137, at 433 (citing *Oracle Am.*, 750 F.3d at 1361).

¹⁷⁴ *Google LLC v. Oracle Am., Inc.*, 141 S. Ct. 1183, 1205 (2021).

¹⁷⁵ *Oracle Am.*, 750 F.3d at 1361.

¹⁷⁶ *Id.* at 1377.

¹⁷⁷ *Google, Inc. v. Oracle Am., Inc.*, 576 U.S. 1071 (2015) (denying Google's writ of certiorari).

¹⁷⁸ *Oracle Am., Inc. v. Google Inc.*, No. C 10-03561, 2016 WL 3181206, at *1 (N.D. Cal. June 8, 2016) [hereinafter *Oracle Am., Inc.*].

¹⁷⁹ *Id.*

¹⁸⁰ *Id.*: see also *Copyright Act of 1976 - Intellectual Property - Fair Use - Google LLC v. Oracle America, Inc.*, *supra* note 137, at 433 (explaining the district court denied Oracle's first motion for judgement as a matter of law, "finding that the jury could 'reasonably have found for either side on . . . fair use.'" (quoting *Oracle Am., Inc.*, No. C 10-03561 WHA, 2016 WL 3181206, at *1)).

¹⁸¹ *Oracle Am., Inc. v. Google LLC*, 886 F.3d 1179, 1186 (Fed. Cir. 2018) [hereinafter *Google LLC*].

¹⁸² *Google LLC*, 886 F.3d at 1193.

¹⁸³ *Copyright Act of 1976 - Intellectual Property - Fair Use - Google LLC v. Oracle America, Inc.*, *supra* note 137, at 433 (citing *Google LLC*, 886 F.3d at 1195, 1210).

¹⁸⁴ *Google LLC*, 886 F.3d at 1211 (emphasis added).

¹⁸⁵ *Google LLC v. Oracle Am., Inc.*, 140 S. Ct. 520 (2019).

¹⁸⁶ *Google LLC v. Oracle Am., Inc.* 141 S. Ct. 1183, 1209 (2021) (Breyer, J., joined by Roberts, C.J., Sotomayor, Kagan, Gorsuch and Kavanaugh, J.J.).

securing for limited Times to Authors and Inventors the exclusive Right to their respective [works].”¹⁸⁷ More specifically, the Court emphasized the objectives of copyright, including providing authors with the exclusive right to reproduce their work, “*not as a special reward*, but in order to encourage the production of works that others might reproduce more cheaply.”¹⁸⁸ But, the Court acknowledged some negative consequences of copyright protections that are usually felt by consumers.¹⁸⁹ After the Court reviewed the long legal history of the case, “the Court, to ‘answer [no] more than [was] necessary to resolve the . . . dispute,’ assumed for the sake of argument that the Java API may be copyrightable.”¹⁹⁰ The Court used this assumption to prevent making generalizations about API’s copyrightability.¹⁹¹ The Court upheld the Federal Circuit’s decision agreeing that judges shall review the legal question of “fair use” de novo.¹⁹²

C. THE FAIR USE FACTORS

The Court held that Google’s copying was fair use as a matter of law.¹⁹³ In fact, the Court found in favor of Google on all four factors,¹⁹⁴ but would begin their analysis with the second factor, “the nature of the copyrighted work.”¹⁹⁵

1. *The Nature of the Copyrighted Work*

While Congress has declared computer programs copyrightable,¹⁹⁶ “all code is not created equal.”¹⁹⁷ The Court distinguished the uncopied implementing code and copied declaring code with help from testimony, reasoning that implementing code requires innovative and creative problem-solving by

¹⁸⁷ *Id.* at 1195 (quoting U.S. CONST. art. 1, § 8, cl. 8).

¹⁸⁸ *Id.* (emphasis added).

¹⁸⁹ *Id.* (discussing Thomas Macaulay’s quote calling “the principle of copyright” a “tax on readers for the purpose of giving a bounty to writers” (quoting Thomas Macaulay, SPEECHES ON COPYRIGHT 25 (E. Miller ed. 1913))).

¹⁹⁰ *Copyright Act of 1976 - Intellectual Property - Fair Use - Google LLC v. Oracle America, Inc.*, *supra* note 137, at 434 (quoting *Google*, 141 S. Ct. at 1197).

¹⁹¹ *Id.* at n.42.

¹⁹² *Google*, 141 S. Ct. at 1199.

¹⁹³ *Id.* at 1209.

¹⁹⁴ *Id.* at 1202, 1204, 1206, and 1208.

¹⁹⁵ *Id.* at 1201 (stating for explanatory purposes the discussion of the second factor is first); *see also Copyright Act of 1976 - Intellectual Property - Fair Use - Google LLC v. Oracle America, Inc.*, *supra* note 137, at 434 n.47 (explaining that the discussion of the second factor—the nature of the copyrighted work—was a detour from fair use cases but its emphasis on this factor can be supported by “several Ninth Circuit interoperability cases” (first citing *Sony Comput. Ent., Inc. v. Connectix Corp.*, 203 F.3d 596, 603–05 (9th Cir. 2000); then citing *Sega Enters. Ltd. v. Accolade, Inc.*, 977 F.2d 1510, 1524–26 (9th Cir. 1992))).

¹⁹⁶ *Google*, 141 S. Ct. at 1201.

¹⁹⁷ *Copyright Act of 1976 - Intellectual Property - Fair Use - Google LLC v. Oracle America, Inc.*, *supra* note 137, at 434 (citing *Google*, 141 S. Ct. at 1201).

programmers, or “magic,” that is not found in “user-centered” declaratory code.¹⁹⁸

The declaring code being “user facing” meant it had to be implemented in a way developers familiar with Java would find digestible.¹⁹⁹ Because of this, declaring code “is inherently bound together with uncopyrightable ideas (general task division and organization) and new creative expression (Android’s implementing code).”²⁰⁰ The Court reasoned that declaring code varies from other programs because it derives value from fellow developers who do not hold copyright in Java but rather invest significant time to learn, utilize, and foster a community based on Java’s API.²⁰¹ For those reasons, the Court weighed this factor in Google’s favor.²⁰²

2. *The Purpose and Character of the Use*

The Court then grappled with the first factor determining the “purpose and character of the use.”²⁰³ The Court discussed whether Google’s use gave the copyrighted work a novel “further purpose” or infused it “with new expression, meaning or message.”²⁰⁴ Alternatively, the Court had to determine “to what extent the new work [was] ‘transformative.’”²⁰⁵ Applying this to Google’s use, the majority found Google’s original creation of the Android platform included copying or “reimplementation” of the API to facilitate the development process for developers familiar with the Sun Java API.²⁰⁶ Google reimplemented the API to create new Android products and repurposed familiar “words and syntaxes,” allowing developers to utilize basic skills they have gained by working with the existing Java API.²⁰⁷ Although Google’s copying was for “a commercial endeavor,”²⁰⁸ the reimplementation of APIs was common practice within the industry and even “necessary if programmers are to be able to use their acquired

¹⁹⁸ *Google*, 141 S. Ct. at 1202.

¹⁹⁹ *Id.*

²⁰⁰ *Id.*

²⁰¹ *Id.* at 1201–02 (explaining that declaring code is inextricably bound to both uncopyrightable organizing tasks, called “method calls” and copyrightable implementing code, which Google did not copy).

²⁰² *Id.* at 1202.

²⁰³ *Id.*

²⁰⁴ *Google*, 141 S. Ct. at 1202 (quoting *Campbell v. Acuff-Rose Music, Inc.*, 510 U.S. 569, 579 (1994)).

²⁰⁵ *Campbell*, 510 U.S. at 579; *see Google*, 141 S. Ct. at 1202–03 (explaining that the Court understands “transformative” to describe the copying use which adds something new and important).

²⁰⁶ *Google*, 141 S. Ct. at 1203.

²⁰⁷ *Id.*

²⁰⁸ *Id.* at 1204.

skills” and “[not] learn a whole new language.”²⁰⁹ The majority was convinced Google’s copying was transformative and found for fair use.²¹⁰

3. *The Amount and Substantiality of the Portion Used*

The Court emphasized the “substantiality” factor” will usually weigh in favor of fair use if the amount copied is “tethered to a [copier’s] valid, and transformative, purpose.”²¹¹ The Court then disagreed with the Federal Circuit, arguing it viewed Google’s “objectives too narrowly.”²¹² Google’s purpose was not limited to Java-compatibility, but allowed developers to use their Java programming skills when developing new programs for Android smartphones.²¹³ The Court found Google needed the declaring code to “unlock the programmers’ creative energies . . . to create and to improve its own innovative Android systems,”²¹⁴ thus finding for fair use.

4. *Market Effects*

Lastly, the Court assessed any market harm Google may have caused from its copying. The Court carefully weighed the lost revenue to Sun/Oracle,²¹⁵ the source of said loss,²¹⁶ and the public benefit the copying likely produced.²¹⁷ The Court highlighted that the jury was provided evidence to support finding Google’s development of Android did not prevent or harm Sun’s ability to enter the mobile phone market.²¹⁸ In fact, evidence was provided to support a jury finding that although the market demanded technology similar to the Android operating system, Sun was unlikely to meet such demand.²¹⁹ It is uncontested that Google financially benefited from copying part of the Java API in the development of the Android platform.²²⁰ The majority mentions, however, that the source of Google’s profit derived from developers’ or third parties’ investment in Sun Java Programs.²²¹ The fact that profit derives from third parties’ investment into a created work rather than the work itself makes it less

²⁰⁹ *Id.* at 1203-04 (quoting J.A. at 191, *Google LLC v. Oracle Am., Inc.*, 141 S. Ct. 1183 (2021) (No. 18-956)).

²¹⁰ *Id.* at 1204.

²¹¹ *Id.* at 1205 (quoting *Campbell*, 510 U.S. at 586-87).

²¹² *Id.*

²¹³ *Id.*

²¹⁴ *Id.* at 1205-06.

²¹⁵ *Id.* at 1206.

²¹⁶ *Id.*

²¹⁷ *Id.*

²¹⁸ *Id.* (referring to Sun’s former CEO testifying that Sun’s failure to build a smartphone was not because of Google creating Android, as their market was mainly laptops and computers, not phones).

²¹⁹ *Google*, 141 S. Ct. at 1207.

²²⁰ *Id.*

²²¹ *Id.* at 1208.

of a “cognizable [harm] under the Copyright Act.”²²² While Oracle would profit substantially from Google paying to license the API, “enforcement of Oracle’s copyright here would risk harm to the public . . . [by] limiting the future creativity of new programs.”²²³

The majority was convinced this would be an interference to “copyright’s basic creativity objectives”²²⁴ and found Google’s copying was fair use as a matter of law.²²⁵

Both Justice Alito and Thomas dissented, arguing the majority did not properly discuss the Copyright Act’s definition of copyrightable “computer program,” which “created a distinction between implementing and declaring code that Congress had previously ‘rejected.’”²²⁶ The majority also ignored the “principal question [whether] declaring code [is] protected by copyright[.]”²²⁷ The dissent found declaring code copyrightable and critiqued the majority’s concession that Google made a “vast amount of money” thanks to Android,²²⁸ and saved Google tens of millions of dollars in licensing costs to Oracle.²²⁹ *Google* was ultimately hailed “as a victory for programmers and consumers.”²³⁰ The majority withheld opining on the copyrightability of functional aspects of an API but gave room for developers to innovate and utilize their creativity by “building on what has come before.”²³¹

As it pertains to this Note’s arguments in favor of mod maker’s rights, “[t]he Court’s expansive view of transformativeness in the fair use inquiry rightly placed a further limit on the derivative works right, allowing for broader applications of fair use in service of copyright’s goal of promoting innovation.”²³² *Google*’s holding is the win mod makers have waited for since *Micro Star* because it grants most creators fair use protections in infringement suits arising from modders profiting off their creations.

²²² *Id.* (quoting *Campbell*, 114 S. Ct. at 1178).

²²³ *Id.*

²²⁴ *Id.*

²²⁵ *Google*, 141 S. Ct. at 1209.

²²⁶ *Copyright Act of 1976 - Intellectual Property - Fair Use - Google LLC v. Oracle America, Inc.*, *supra* note 137, at 436 (quoting *Google*, 141 S. Ct. at 1212-13).

²²⁷ *Google*, 141 S. Ct. at 1212.

²²⁸ *Id.* at 1207.

²²⁹ *Id.* at 1216 (arguing the majority perpetuates negative market effects by allowing Google to copy Oracle’s APIs without paying for licenses and recalls Amazon and Samsung reducing their Oracle license costs utilizing Google’s copying as leverage).

²³⁰ Madeleine Carlisle, *How Google’s Big Supreme Court Victory Could Change Software Forever*, TIME (Apr. 6, 2021, 10:24 AM), <https://time.com/5952718/google-oracle-supreme-court/>.

²³¹ Michael Barclay, *Victory for Fair Use: The Supreme Court Reverses the Federal Circuit in Oracle v. Google*, ELECTRONIC FRONTIER FOUND. (Apr. 5, 2021), <https://www.eff.org/deeplinks/2021/04/victory-fair-use-supreme-court-reverses-federal-circuit-oracle-v-google>.

²³² *Copyright Act of 1976 - Intellectual Property - Fair Use - Google LLC v. Oracle America, Inc.*, *supra* note 137, at 437.

VII. ANALYSIS

Video game mod makers create and innovate when they begin a project expanding, improving, transforming, or altering a base or vanilla game.²³³ This creative endeavor is similar to that of developers beginning to work with familiar APIs to create a new platform based on a familiar programming language. If courts are held to this expanded view of fair use post-*Google*, it may follow that even if a mod-maker is found to have copied a base game's code to create a mod, the fair use defense applies to protect these creators' subsequent works.

A. DOES *GALOOB* EXTEND TO MODERN MOD CREATIONS?

First, the modded circuit boards in the Midway arcade cabinets were fixed and tangible modifications that were physically installed,²³⁴ rather than intangible implementations of code accessible on the internet.²³⁵ No physical device, like the Game Genie, is required to modify a game. Instead, the installation process is all digital. Platforms like Nexus Mods,²³⁶ Steam Workshop,²³⁷ Bethesda Creation Club,²³⁸ and CurseForge²³⁹ facilitate simple installation of a desired mod without video tutorials,²⁴⁰ and instead using automated mod installation

²³³ See Xander, *What Does Vanilla Mean in Gaming?*, ULTIMATE GAME CHAIR (Oct. 29, 2023), <https://www.ultimategamechair.com/what-does-vanilla-mean-in-gaming/> (defining a "vanilla" game as the base game which is free of mods, upgrades, or expansions).

²³⁴ Lindstrom, *supra* note 1, at 817 (citing *Midway Mfg. Co. v. Artic Int'l, Inc.*, 704 F.2d 1009, 1010-11 (7th Cir. 1983)).

²³⁵ See *infra* notes 236-240 (discussing how internet-accessible code mods work).

²³⁶ See *About Us*, NEXUSMODS, <https://next.nexusmods.com/about> (last visited Sept. 17, 2023) (providing a central mod sharing platform to upload created mods and a desktop software called Vortex that automates the mod installation process and flags for conflict errors between mods).

²³⁷ See *About Workshop*, STEAM, <https://steamcommunity.com/workshop/workshopsubmitinfo/> (last visited Sept. 17, 2023) (describing Steam's central hub for video game mods and platform for players and creators to share, discuss, and subscribe to mod makers' creations).

²³⁸ See *Creation Club*, BETHESDA, <https://creationclub.bethesda.net/en> (last visited Sept. 17, 2023) (describing Bethesda's curated list of mods for *Fallout* and *Skyrim* that have been created internally by external partners familiar with their games; the Creation Club Creators are compensated for their approved and original creations, but Bethesda states the mods in Creation Club are not paid because "the problems outweigh the benefits").

²³⁹ See *Minecraft Mods*, CURSEFORGE, <https://www.curseforge.com/minecraft/mc-mods> (last visited Sept. 17, 2023) (creating a hub for modders of the popular *Minecraft* video game to share their creations and providing an automated mod installation process for players to use).

²⁴⁰ *How to Install Minecraft Mods with Forge (Client Side)*, APEX HOSTING, <https://apexminecrafthosting.com/how-to-install-mods-on-forge/>. (last visited July 12, 2023); see also *How to Install Mods*, 7 DAYS TO DIE MODS, <https://7daystodiemods.com/how-to-install-7-days-to-die-mods/> (last visited Sep. 17, 2023) (providing a manual installation of a mod for *7 Days to Die* on PC); The Murloc King, *How to Mod Skyrim in 2022 Anniversary*

software.²⁴¹ Similar to the temporary and physical nature of the Game Genie that can be installed and removed at will,²⁴² a modern mod is just as temporary if the player decides to uninstall it. Deletion of a mod is as simple as deleting the mod from the corresponding mod folder,²⁴³ or using a mod management software to automate removal.²⁴⁴

While the methods for deleting a mod may be quicker for those with fluency in basic file management and computer skills, the transient nature of modern games is still present, unlike that argued by Lindstrom.²⁴⁵

B. ANALOGIZING THE JAVA API TO A BASE VIDEO GAME

The Java API can be analogized to the base video game's code. Those familiar with the Java API are also familiar with the syntaxes, method calls, and declaring code used to instruct the system to do certain tasks.²⁴⁶ Similarly, mod makers are familiar with a game's API or base code, like OpenGL, which is a software interface programmers utilize to interact with the graphics hardware itself.²⁴⁷ Like the Java API, mod developers invest their skills in an interface they can utilize when developing mods. OpenGL is just one example of an open standard API that is interoperable or cross-platform.²⁴⁸ With the Court in *Google* finding that Google's copying and unlicensed use of an existing API to create the Android platform was fair use as a matter of law,²⁴⁹ what makes a mod-maker creating a new storyline for an existing game any different?

Edition | Special Edition (Beginner's Guide), YOUTUBE (Feb. 11, 2022), <https://www.youtube.com/watch?v=5XNCJVF99Vk> (showing how to mod a specific game).

²⁴¹ See *supra* notes 236–240 (providing platforms and resources to manage mod installation and deletion).

²⁴² *Lewis Galoob Toys, Inc. v. Nintendo of Am., Inc.*, 964 F.2d 965, 967 (9th Cir. 1992).

²⁴³ Murgh, *Removing Mods Manually*, STEAM (Nov. 25, 2019, 3:39 AM), <https://steamcommunity.com/sharedfiles/filedetails/?id=1918148552> (describing how to manually uninstall a mod by renaming or deleting the mod from the corresponding folder).

²⁴⁴ Darlene Antonelli, *How to Delete Steam Workshop Mods*, WIKIHOW (July 3, 2023), <https://www.wikihow.com/Delete-Steam-Workshop-Mods> (explaining that a Steam Workshop user simply has to select “unsubscribe” and relaunch the game to uninstall a mod).

²⁴⁵ Lindstrom, *supra* note 1, at 820 (claiming “most mods are much more fixed”).

²⁴⁶ *Google*, 141 S. Ct. at 1191-1192, 1202-1203; see also, *Copyright Act of 1976 - Intellectual Property - Fair Use - Google LLC v. Oracle America, Inc.*, *supra* note 137, at n.16 (describing the types of code and their uses).

²⁴⁷ *Preface: What is OpenGL?*, OPENGLBOOK.COM, <https://openglbook.com/chapter-0-preface-what-is-opengl.html> (last visited Nov. 26, 2022) (describing Open-GL as an open standard).

²⁴⁸ *Id.* (claiming “you will be hard-pressed to find a modern platform without at least some level of OpenGL support”).

²⁴⁹ *Google*, 141 S. Ct. at 1209.

C. A HYPOTHETICAL

What if a mod maker wishes to create a new mod for a game, like *Minecraft Java Edition*. A developer must: (1) have an idea for a mod; (2) own *Minecraft Java*; (3) learn or be familiar with the Oracle Java Development Kit (“JDK”);²⁵⁰ (4) install and learn Eclipse IDE (Integrated Development Environment);²⁵¹ and (5) install Minecraft Forge.²⁵² It is very likely that the mod will be for a game that they own or plan to purchase and alter.²⁵³ This is important because the mod will rely or condition its functions on the base game’s mechanics and physics to facilitate the developer’s ideas.²⁵⁴ Although, even if the mod altered foundational elements of a base game, the developer would still retain aspects of said game in their mod that are bound to the base game.²⁵⁵

For instance, if they are altering the physics of liquid, cloth, or mobs (non-playable creatures) to make them more cartoonish or extremely realistic, the developer will not rewrite all aspects of the base game.²⁵⁶ Instead, they will transform the base code to achieve their idea, which usually will have an impact on standard features of the game.²⁵⁷ If a modification did not rely on the base game at all it would not fall within the definition of a mod, and instead be considered its own stand-alone computer program.²⁵⁸

Similar to Google’s Android platform, Google may have only copied 0.4% of Java’s API or around 11,500 lines,²⁵⁹ but this code was declaring code, which is

²⁵⁰ *How to Make a Minecraft Mod: Code Mods in Minecraft*, CREATE & LEARN (June 21, 2023), <https://www.create-learn.us/blog/how-to-code-minecraft-mods-for-kids/> (explaining the advanced route on how to create *Minecraft* mods).

²⁵¹ *Desktop IDEs*, ECLIPSE FOUND., <https://www.eclipse.org/ide/> (last visited Nov. 26, 2022) (explaining Eclipse as the famous Java Integrated Development Environment (IDE) which is a tool for Java developers).

²⁵² *How to Make a Minecraft Mod: Code Mods in Minecraft*, *supra* note 250 (explaining how a Minecraft Java add-on allows mods to be installed to the vanilla game).

²⁵³ Danae, *Modder’s Interview: Vitruvian_Guar*, DANAEPPLAYS (Feb. 24, 2023), https://danaeplays.thenet.sk/modders-interview-vitruvian_guar/ (discussing some inspiration to mod making may include a desire to fix faults in the game’s story or mechanics).

²⁵⁴ *Create a Mod (Source)*, VALVE DEVELOPER CMTY. (Oct. 4, 2023), [https://developer.valvesoftware.com/wiki/Create_a_Mod_\(Source\)](https://developer.valvesoftware.com/wiki/Create_a_Mod_(Source)) (explaining a mod maker must choose the version of the base game’s code it wishes to modify before creating a new mod).

²⁵⁵ See DANAEPPLAYS, *supra* note 253 (describing how a mod maker “take[s] the existing mechanics related to specific skills and make[s] them a bit more coherent, interesting and immersive”).

²⁵⁶ See *Feature Overview*, MINECRAFT PHYSICS MOD, <https://minecraftphysicsmod.com/features> (last visited Nov. 26, 2022) (providing users advanced physics mods to Minecraft).

²⁵⁷ See DANAEPPLAYS, *supra* note 253 (providing a mod maker is motivated to enrich the base game by improving existing systems).

²⁵⁸ See Lindstrom, *supra* note 1, at 813 (defining a video game mod).

²⁵⁹ *Google LLC v. Oracle Am., Inc.*, 141 S. Ct. 1183, 1191 (2021).

indivisible from uncopyrightable organizing tasks and method calls.²⁶⁰ The significance is that a mod may contain tens or hundreds of thousands of lines of code not found in the base game, yet utilize the foundational or base functions to showcase the mod.²⁶¹

Next, the fact that the developer must own the game itself to create the mod, install said mod, and test the mod for operability distinguishes it from a normal development process, like that in *Google*, making it more protectable. The game developer is passively profiting from the third-party developer's investment into the creation of mods for the copyright owner's base game.²⁶² If the game developer argues market harm was done because of a mod-maker's creation, under the lack of cognizable harms for Oracle in *Google*,²⁶³ and market desirability in *Galoob*,²⁶⁴ these cases both lean in an infringer's favor. The majority found Google's development of Android not harmful to Sun's ability to enter the mobile phone market even though Google profited significantly by not licensing from Sun.²⁶⁵

The Court in *Google* focused more on the value of the third parties' investment in the created work, rather than the work itself.²⁶⁶ While mod makers cannot profit from their creations, they do derive value from a players' investment in a created work similar to Google profiting from the third-party developers' investment in Sun Java Programs.²⁶⁷ For instance, a mod maker does not have a right to financial compensation for their work, but they may find value in creating mods for a game with some audience.²⁶⁸ Luckily, under *Google*, this derived value from a third party investment is less likely to be a cognizable harm to the copyright holder.

In addition, while the defendant's Game Genie device in *Galoob* created a \$150 million market that Nintendo desired, this failed to meet the Act's fixed

²⁶⁰ *Id.* at 1202.

²⁶¹ Charlie Hall, *Working Pokémon Red Recreated Entirely Inside Minecraft (Update)*, POLYGON (Mar. 30, 2017, 1:29 PM), <https://www.polygon.com/2017/3/13/14909266/pokemon-red-built-in-minecraft-video> (showcasing a popular mod-maker's Minecraft mod that took 357,000 command blocks or executable commands).

²⁶² Matthew Gault, *'Doom' Will Never Be Eternal Without Mods*, VICE MEDIA GRP. (Jan. 21, 2020), <https://www.vice.com/en/article/5dmg8b/doom-will-never-be-eternal-without-mods> (discussing game developer's executives "'would attribute some of [Doom's] success to its openness'").

²⁶³ *Google*, 141 S. Ct. at 1207-1208.

²⁶⁴ *Lewis Galoob Toys, Inc. v. Nintendo of Am., Inc.*, 964 F.2d 965, 968 (9th Cir. 1992).

²⁶⁵ *Google*, 141 S. Ct. at 1207.

²⁶⁶ *Id.* at 1208.

²⁶⁷ *Id.*

²⁶⁸ See *supra* note 80 and accompanying text (providing relevant case law that prevents mod makers from earning compensation for their creations); see also *Games Modding – Why you should do it*, INTO GAMES (Aug. 11, 2020), <https://intogames.org/news/how-to-mod/> (describing mod makers may derive non-monetary value from modding like building programming skill).

definition.²⁶⁹ Mod-makers do create a substantial financial market that is desirable to game developers and change the game's code, likely meeting the definition of fixed.²⁷⁰ But just as quickly as mods can be installed, they can be deleted in minutes without any trace of said mod.²⁷¹ In fact, like the Game Genie in *Galoob is useless without the console and cartridge*, a mod is similarly useless without the base game.²⁷² Mods are in a unique position from other computer programs and are similar to the Game Genie because they require that both a mod-maker and an end-user purchase the copyright holders' work to install and use a mod.²⁷³ According to *Google*, a developer did not need to purchase Sun/Oracle's Java programming language to begin developing.²⁷⁴ Oracle just required developers to maintain interoperability.²⁷⁵ That said, the creation of mods will not thwart a game's market potential, but instead grow it.²⁷⁶ All game developers ought to embrace and encourage the modding community to expand and improve their game or else risk its slow or *rapid* demise.²⁷⁷

VIII. CONCLUSION

The case law that has protected video game developers since *Micro Star* is weakened by the decision in *Google*. And more importantly, the *Google* decision was far broader and expanded the aged *Campbell* decision. While the Supreme Court failed to opine on the copyrightability of declarative code, the world of innovators and computer programmers has rejoiced at the Court's steps toward modern copyright laws. The lower courts have a newer and expanded view of "transformative" uses and can be trusted to make choices that lean in favor of

²⁶⁹ *Galoob*, 964 F.2d at 968–69.

²⁷⁰ See *Micro Star v. Formgen, Inc.*, 154 F.3d 1107, 1111–13 (1997) (holding copyright holder's game screenshots defendant used to sell a collection of other user-generated maps burned on a disc was fixed and an infringement of the game developer's copyright); *Midway Mfg. Co. v. Artic Int'l, Inc.*, 704 F.2d 1009, 1013 (7th Cir. 1982) (finding modified circuit boards were derivative works and infringed owner's copyright).

²⁷¹ See *supra* notes 243–244 and accompanying text (providing guides to delete installed mods).

²⁷² Lindstrom, *supra* note 1, at 819 (citing *Galoob*, 964 F.2d at 968); see also *supra* note 94 and accompanying text (describing how the Game Genie required a player to have both the Nintendo Entertainment System and the Nintendo game cartridges to utilize the Game Genie's modification features).

²⁷³ See Szczepaniak, *supra* note 94 (describing the reverse-engineering process the Game Genie creators utilized to create the Game Genie).

²⁷⁴ See *Oracle*, 141 S. Ct. at 1211 ("Oracle always made its declaring code freely available to programmers"); see also *How Much Does it Cost to Learn Java?*, NOBLE DESKTOP, <https://www.nobledesktop.com/learn/java/cost-to-learn> (last visited Nov. 20, 2023) (explaining that "learning Java can cost from \$0 for an introductory course to full tuition at a four-year university").

²⁷⁵ *Oracle*, 141 S. Ct. at 1211.

²⁷⁶ See *supra* note 262 and accompanying text (describing *Doom Eternal* cannot "be eternal without a strong community and won't have one if it's "too complicated" to make mods for").

²⁷⁷ *Id.*

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innovation and creativity where justice so requires. Courts are encouraged to tackle the legal plights of technological innovators with open arms. This approach will provide for an ever evolving, yet consistent, interpretation of the copyright laws.

Mod makers are pioneers. Whether they rewrite an entire game's code for the sake of practice, quality of life improvements, or to showcase their development skills, they do so in the spirit of creativity and passion. The Copyright Act was enacted to protect the exclusive rights of creators. However, to combat monopolization of uncopyrightable aspects of a work, the fair use doctrine may be used as a shield to protect would-be infringing works. *Google* has rebuffed this doctrine and has expanded the shelter upon subsequent creators of derivative works. Mod makers are directly impacted by the *Google* decision and are now protected under the rebuffed fair use doctrine for their original mod creations.