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The Dimensions of Gameplay: Presenting an Alternative to Video Game Copyrights for Games Without Narratives

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THE DIMENSIONS OF GAMEPLAY: PRESENTING AN ALTERNATIVE TO VIDEO GAME COPYRIGHTS FOR GAMES WITHOUT NARRATIVES

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INTRODUCTION

Intellectual property protections are designed, in theory, to incentivize people to create valuable works.[1] Nevertheless, the objectives that intellectual property rights seek to achieve and the actual effect that they create do not always align.[2] In determining which works should have intellectual property protections, a balancing test must be used in which the economic incentives of intellectual property protection are weighed against the notion that some ideas should be a part of the 'marketplace of ideas.'[3] If courts are not careful, granting intellectual property rights may lead to some creators holding an unjustified monopoly over elements that are indispensable to an industry.[4]

Much like other forms of media, video games commonly take elements or ideas from prior video games to synthesize a new creation.[5] Where the courts draw the line between what is copyrightable and what is not has a big impact on what video game developers decide to create.[6] As with all other fixed mediums, neither ideas nor functional elements—such as procedures, processes, systems, or methods of operation—are copyrightable.[7] For video games, this means that mechanics and rules, in addition to the

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1. *See infra* Section I.
2. *Id.*
3. *See infra* note 18 and accompanying text.
4. *See infra* Section IV.
5. *See infra* notes 215-18 and accompanying text.
6. Amaury Cruz, *What's the Big Idea behind the Idea-Expression Dichotomy?—Modern Ramifications of the Tree of Porphyry in Copyright Law*, 18 FLA. ST. U. L. REV. 221, 222 (1990).
7. *See infra* note 35.

overall idea, of a game are not copyrightable. Nevertheless, in *Tetris Holding, LLC v. Xio Interactive, Inc.*,[8] the court found that elements of the game *Tetris* were copyrightable, despite the fact that the game is just composed of a system of rules without any kind of narrative.[9] This decision has the potential to create a domino effect allowing other game mechanics and rules to be copyrightable, thereby obstructing the growth of the video game industry.[10] In finding a middle ground between allowing video game developers to retain intellectual property rights over their works while also ensuring the 'marketplace of ideas' is not obstructed, I propose that video games that are limited to only a system of mechanics and rules should be granted patents instead of copyrights.[11]

Section I applies the general purpose behind intellectual property rights to copyrights and patents.[12] Section II discusses how video games are perceived in theory, as well as the scope of intellectual property rights given to video games.[13] Section III describes existing flaws in the courts' application of copyright and patent law.[14] Section IV analyzes the potential implications of *Tetris Holding, LLC v. Xio Interactive, Inc.*[15] Finally, Section V proposes an alternative to allowing copyrights to video games that are limited to just a system of mechanics and rules.[16]

I. WHAT IS THE PURPOSE BEHIND GRANTING INTELLECTUAL PROPERTY RIGHTS?

Intellectual property rights are designed to incentivize people to create valuable, innovative works.[17] The reasoning goes, if people are free to reproduce the works of others, individuals would have no economic incentive to create such works.[18] In the video game industry, the absence of

8. 863 F. Supp. 2d 394 (D.N.J. 2012).

9. *Id.* at 410-11.

10. *See infra* Section IV.

11. *See infra* Section V.

12. *See infra* Section I.

13. *See infra* Section II.

14. *See infra* Section III.

15. *See infra* Section IV.

16. *See infra* Section V.

17. Eric E. Johnson, *Intellectual Property and the Incentive Fallacy*, 39 FLA. ST. U. L. REV. 623, 628-29 (2012).

18. *Id.*; *see also id.* at 630 ("Why would anyone undertake the hard work of creating something valuable if everyone else can just use it without paying?"). Intellectual property rights, however, are not intended to only benefit the individual creators of works, but provide a benefit for the public. Consequently, creators benefit only as a means to an end because of the underlying public policy reasons. *See* 13 LUCAS MARTIN, M.L.E. INTELLECTUAL PROPERTY § 2 (2024); *see also* Bonito

intellectual property rights would mean developers would only be guaranteed the sale of their game's first copy before their work is inevitably duplicated by a third party.[19] Coding video games is oftentimes an expensive feat since programmers are highly paid and the actual process of coding and testing a video game takes time.[20] Thus, obtaining intellectual property rights for video games allows developers to be properly compensated for their works through the control and profits of their game copies.[21]

Under the U.S. Constitution article I, § 8, clause 8, Congress has the constitutional power to "promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries."[22] This clause allows Congress to grant copyrights and patents.[23] Congress's power over a third type of intellectual property, trademarks, finds its basis in a different constitutional provision–namely the power to regulate commerce with foreign nations, among the States and with Native American Tribes under the U.S. Constitution. article 1, § 8, clause 3.[24] Unlike copyrights and patents, trademarks do not exist to promote the development of the arts and sciences, but rather to prevent customer confusion.[25] For purposes of this comment, the scope and application of trademarks to video games will not be discussed.

Boats, Inc. v. Thunder Craft Boats, Inc., 489 U.S. 141, 150 (1989).The actual purpose of intellectual property rights is to create a positive effect on society by progressing the arts and sciences through the flourishing of valuable works. Not all works are equal–arguably, those that only reproduce existing works while adding little to original ideas are less valuable than innovative works. *See infra* note 191 and accompanying text. Therefore, limitations on what works can receive intellectual property rights exist to encourage the development of only works that are valuable.

19. *See* Johnson, *supra* note 17, at 633.

20. Jean F. Rydstrom, Annotation, *Patentability of Computer Programs*, 6 A.L.R. Fed. 156 (1971).

21. Amy M. Adler, *Why Art Does Not Need Copyright*, 86 GEO. WASH. L. REV. 313, 319 (2018). The owner of a copyright may reproduce, distribute, and display the copyrighted work. 17 U.S.C. § 106. Similarly, the owner of a patent may make, use, offer to sell, sell, or import their patented invention. 35 U.S. Code § 271.

22. U.S. CONST. art. I, § 8, cl. 8.

23. Congress has delegated its authority to issue copyrights to The Copyright Office. 17 U.S. Code § 701. Similarly, congress has delegated its authority to issue patents to The United States Patent and Trademark Office. 35 U.S. Code § 1.

24. 1 J. THOMAS MCCARTHY, MCCARTHY ON TRADEMARKS AND UNFAIR COMPETITION § 6:2 (5th ed. 2023).

25. *Id.* at § 6:3.

An Alternative To Video Game Copyrights For Games Without Narratives

A. General Principles Behind Copyright Protection

Copyrights allow creators to distribute, perform, and display their work to the public; prepare derivative works; and reproduce their work.[26] Since 1978, copyrights last the length of the author's life plus an additional seventy years.[27] The Copyright Act offers copyright protection to "original works of authorship fixed in any tangible medium of expression."[28] Enumerated categories of such original works include literary works, musical works, dramatic works, pantomimes and choreographic works, pictorial, graphic, and sculptural works, motion pictures and other audiovisual works, sound recordings, and architectural works.[29] The scope of what works are copyrightable is further limited by the idea-expression dichotomy.[30]

Because of copyright's underlying public policy rationale, the law has built-in mechanisms that presumably reduce the public costs associated with the grant of private limited monopoly rights.[31] Such mechanisms include the duration of copyright protection,[32] the "fair use" doctrine,[33] and the idea-expression dichotomy.[34] In short, the idea-expression dichotomy holds that copyright protection extends only to the expression of ideas, and not the idea itself.[35] As Justice Holmes put it, "[o]thers are free to copy the original. They are not free to copy the copy."[36] The idea-expression dichotomy, in theory, creates economic incentives by allowing creators to copyright their expressions, while simultaneously ensuring the ideas behind the expression are entered into the 'marketplace of ideas' and therefore benefit society at large.[37]

26. 17 U.S.C. § 106.

27. 17 U.S.C. § 302(a).

28. 17 U.S.C. § 102.

29. *Id.*

30. LIONEL BENTLY ET AL., COPYRIGHT AND PIRACY: AN INTERDISCIPLINARY CRITIQUE 147-48 (2010) ("Public access to ideas, combined with protection of specific forms of the expression of ideas, offers a way to encourage creators without compromising the interest of society at large.").

31. Adler, *supra* note 21, at 326.

32. 17 U.S.C. § 302.

33. 17 U.S.C. § 107.

34. 17 U.S.C. § 102(b).

35. *See id.*; Bently et al., *supra* note 30.

36. Bleistein v. Donaldson Lithographing Co., 188 U.S. 239, 249 (1903).

37. Bently et al., *supra* note 30; *see also* Holmes v. Hurst, 174 U.S. 82, 86 (1899) ("[N]or is it the right to ideas alone, since in the absence of means of communicating them they are of value to no one but the author. But the right is to that arrangement of words which the author has selected to express his ideas…").

In determining which elements are expressions rather than ideas, there must be a finding that there are various meaningful ways of expressing the desired idea.[38] If this is not found, then two possible related doctrines may apply to prevent copyright protection: merger and scènes à faire.[39] The doctrine of merger prevents copyright protection over ideas that are inseparable from their particular expression.[40] Merger is appropriate when "there are no or few other ways of expressing a particular idea."[41] Similarly, the doctrine of scènes à faire applies when an expression is so associated with a particular genre, motif, or idea that one is compelled to use such expression.[42] Such doctrines exist to prevent an unacceptable monopoly over a particular idea.[43] In balancing between allowing an infringer to unlawfully copy another's expression or preventing the use of ideas rightly in the public domain, the courts find that "it is better to allow such copying rather than suffer the loss of future works that would have been developed based on those ideas."[44]

B. General Principles Behind Patent Protection

While copyright protects an expression of an idea, patents protect the physical exploration or embodiment of an idea.[45] Patents exist to encourage the production of utilitarian works by giving the inventor an exclusive yet limited private monopoly to make, use, offer to sell, or sell a work in exchange for disclosure of the work to the public domain upon expiration of the patent.[46]

There are two kinds of patents–utility patents and design patents.[47] Utility patents last for twenty years while design patents last for fifteen years.[48] To satisfy the standards of a utility patent, the claim must be novel, non-obvious, and useful.[49] Utility patents are thought to protect

38. Tetris Holding, LLC v. Xio Interactive, Inc., 863 F. Supp. 2d 394, 401 (D.N.J. 2012).

39. *Id.* at 403.

40. *Id.* ("In some instances, there may come a point when an author's expression becomes indistinguishable from the idea he seeks to convey, such that the two merge.").

41. *Id.*

42. *Id.*

43. *Id.*

44. *Id.*

45. 1 L. J. KUTTEN & FREDERIC M. WILF, COMPUTER SOFTWARE § 2:3 (2023).

46. Thomas Connors, *High Score? Subject Matter Patentability of Video Gameplay Methods After* In Re Bilski, 30 U. LA VERNE L. REV. 517, 519 (2009); *see also* 35 U.S.C. § 271(a).

47. 35 U.S.C. § 101; *see also* 35 U.S.C. § 171.

48. 35 U.S.C. § 154(a)(2); 35 U.S.C. § 173.

49. 35 U.S.C. §§ 102(a), 103, 101. Additionally, utility patent claims must be a process or method, machine or apparatus, manufacture, or composition of matter. *See id.*

inventions that are "functional."[50] More often than not, "functional" is understood under patent law as being technological.[51] To satisfy the standards of a design patent, the claim must be "new, original and ornamental."[52] The requirement that the design patent be ornamental means that the design must not be solely dictated by function.[53]

Unlike copyrights, patents are first examined for basic validity before a certificate of registration is issued.[54] To receive a patent, the Patent Office must first find the claim to be patent-eligible.[55] Laws of nature, physical phenomena, and abstract ideas are not patent-eligible.[56] Once a claim is determined to be patent-eligible, the Patent Office assigns a technically trained examiner to determine whether the claim satisfies the appropriate standards of either a utility or design patent before granting the claim.[57]

Patent protection strikes a delicate balance between creating incentives that lead to invention and impeding the flow of information that might spur such invention.[58] Although patents reward creators for their substantial discoveries or inventions, such patents may also, in effect, create a monopoly over certain ideas.[59] This rationale is why patents are not eligible for natural laws, physical phenomena, and abstract ideas as these areas represent categories that serve as the building blocks for human ingenuity.[60]

50. David L. Schwartz & Xaviere Giroud, *An Empirical Study of Design Patent Litigation*, 72 ALA. L. REV. 417, 422 (2020).

51. Mark McKenna & Christopher J. Sprigman, *What's In, and What's Out: How IP's Boundary Rules Shape Innovation*, 30 HARV. J.L. & TECH. 491, 501 (2017).

52. 35 U.S.C. § 171(a).

53. Schwartz & Giroud, *supra* note 50, at 423.

54. Gaste v. Kaiserman, 863 F.2d 1061, 1065 (2d Cir. 1988).

55. Connors, *supra* note 46, at 519-20.

56. Diamond v. Chakrabarty, 447 U.S. 303, 309 (1980).

57. Schwartz & Giroud, *supra* note 50, at 422; U.S. PAT. AND TRADEMARK OFFICE, MANUAL OF PATENT EXAMINING PROCEDURE § 1504 (2023).

58. Ass'n for Molecular Pathology v. Myriad Genetics, Inc., 569 U.S. 576, 577 (2013).

59. *See* Conn. Paper Prod. v. N.Y. Paper Co., 127 F.2d 423, 424 (4th Cir. 1942) ("It was never the object of the patent laws to grant a monopoly for every trivial device.").

60. Annal D. Vyas, *Alice in Wonderland v. CLS Bank: The Supreme Court's Fantastic Adventure Into Section 101 Abstract Idea Jurisprudence*, 9 AKRON INTELL. PROP. J. 1, 5 (2015).

II. WHAT ARE VIDEO GAMES?

A. Video Games in the Abstract Sense

A video game, in its simplest form, is a framework for structured play.[61] Still, there are a number of competing theoretical models seeking to identify how video games are a distinct form of media—separate from earlier cultural media forms such as analog games and narrative media.[62] Scholars separate video games into a distinct form of media based on which elements of video games ought to be emphasized—narratologists emphasize a game's narrative, while ludologists emphasize a game's mechanics and rules.[63]

Narratologists believe video games are best understood as interactive narratives or stories.[64] Unlike other forms of narrative media, video game narratives are incomplete so as to allow the player to bring their own creativity to contribute to the overall story of the game.[65] Although the main narrative arc of a video game's story is pre-set, the player's actions can have a significant impact on how that story is told.[66] The problem with the narratological theory, however, is that narratives are neither a

61. Celia Pearce, *Towards a Game Theory of Game*, ELECTRONIC BOOK REVIEW (Jul. 8, 2004), https://electronicbookreview.com/essay/towards-a-game-theory-of-game/. *But see* Kamran Sedig et al., *Player–Game Interaction and Cognitive Gameplay: A Taxonomic Framework for the Core Mechanic of Videogames*, MDPI (Jan. 13, 2017), https://www.mdpi.com/2227-9709/4/1/4 ("A game is a system in which players engage in artificial conflict, defined by rules, that results in a quantifiable outcome."). *See also* Espen Aarseth, *Computer Game Studies, Year One* (2001), https://gamestudies.org/0101/editorial.html ("Games are both object and process; they can't be read as texts or listened to as music, they must be played. Playing is integral, not coincidental like the appreciative reader or listener.").

62. *See generally* Pearce, *supra* note 61; *see also* Kristine Jørgensen & Torill Elvira Mortensen, *Whose Expression Is It Anyway? Videogames and the Freedom of Expression* (Feb. 28, 2022), https://nordopen.nord.no/nord-xmlui/bitstream/handle/11250/3032992/J%c3%b8rgensen.pdf?sequence=4&isAllowed=y ("By understanding videogames as simultaneously representative and procedural, we consider them a distinct media form at the same time as we acknowledge that they are also a part of a cultural evolutionary timeline. Videogames borrow heavily from earlier cultural forms such as analogue games and narrative media, but are at the same time using digital procedurality in a way that has enabled them to evolve into a new medium.").

63. Grant Tavinor, *Definition of Video Games*, 6 CONTEMPORARY AESTHETICS 1 (2008), https://digitalcommons.risd.edu/liberalarts_contempaesthetics/vol6/iss1/16.

64. *Id.*; *see also* Aaron Meskin & Jon Robson, *Videogames and the Moving Image*, 64 REVUE INTERNATIONALE DE PHILOSOPHIE 547, 550-51 (2010) ("[T]he genre of the contemporary narrative videogame (e.g., Bioshock, GTA IV, Heavy Rain) is recently descended from the combination of the art form of film with interactive computer technologies and older forms of non-video games…").

65. Pearce, *supra* note 61.

66. John Kuehl, Comment, *Video Games and Intellectual Property: Similarities, Differences, and a New Approach to Protection*, 7 CYBARIS, AN INTELL. PROP. L. REV. 313, 318 (2016).

sufficient nor necessary condition of video games.[67] For instance, *Tetris* only involves a challenge of sensory-motor coordination, foregoing a narrative altogether.[68] Thus, ludologists argue that games are defined by their mechanics and rules.[69] However, once again, this theory fails to capture the unique nature of video games because such theory can also be used to describe non-video games, such as toys, puzzles, and card games.[70]

Part of the reason why there is no universal consensus as to the definition of video games is because many game theorists seek to find a definition that fits into traditional media frameworks.[71] As Meskin and Robson argue, video games belong to the *medium* of the moving image[72] while simultaneously not belonging to the *art form* of the moving image.[73] Unlike other mediums of moving images (i.e., films, TV shows), video games use direct and active participation from the audience.[74] Moreover, by playing video games, audiences can have aesthetic achievement in their own right which is largely not true for audiences watching films and TV shows.[75] Take for example how a player's fighting skills in *Virtual Fighter 5* can be either graceful or clunky.[76] Likewise, consider how a player's choices in a narrative-heavy game, such as *Grand Theft Auto IV*, can create moral ambiguity.[77] It is perhaps more fitting to recognize that games can be defined, not in terms of their intrinsic properties, but rather

67. Tavinor, *supra* note 63.

68. *Id. But see id.* (presenting Steven Poole's argument that *Tetris* may be included in the narratological approach because it has a "kinetic narrative").

69. *Id.*

70. *Id.*

71. Pearce, *supra* note 61 ("[T]hey continue to struggle to 'fit a square peg into a round hole.'"); *see also* Tavinor, *supra* note 63 (arguing that part of the disagreement about the definition of video games arises from people's implicit bias in picking out one element that is favored to them and claiming that element is essential).

72. Noël Carroll's proposed definition of a moving image is: "(1) it is a detached display or a series thereof; (2) it belongs to the class of things from which the production of the impression of movement is technically possible; (3) performance tokens of it are generated by templates which are tokens; (4) performance tokens are not artworks in their own right; and (5) it is a two-dimensional array." Meskin & Robson, *supra* note 64, at 547.

73. *Id.* at 563.

74. Dominic Arsenault, *Video Game Genre, Evolution and Innovation*, 3 ELUDAMOS: J. FOR COMPUT. GAME CULTURE 149, 149 (2009). *But see* Meskin & Robson, *supra* note 64, at 555 (giving an example of how *I'm Your Man* is an interactive movie because the audience is given the ability to vote on how the film's story should progress at various points).

75. Meskin & Robson, *supra* note 64, at 557.

76. *Cf. id.* ("Jon may claim that while we were both victorious in our respective fights in *Virtual Fighter 5*, his playing was graceful, flowing and innovative, whereas Aaron's was tedious, clunky and unoriginal.").

77. *Id.* at 557-58.

through some kind of relational property between how the game information is represented and how the player interacts with the represented information.[78]

B. Video Games in the Legal Sense

Video games are protected as both "literary works" and "audiovisual works" under the Copyright Act, 17 U.S.C. §§ 101 et seq.[79] A video game's source code is protected as a "literary work,"[80] while the audiovisual effects[81] of videogames are protected as "audiovisual works".[82] While it may be the case that copying a video game's source code would incidentally copy the audiovisual components as well, the opposite may not necessarily be true.[83] For the purposes of this comment, the legal ramifications of allowing video games' source codes to be protected as "literary works" will not be discussed.

In using the idea-expression dichotomy, courts have held that art assets within a video game, the sound track of a game, background images, and the visual appearance of the interface are protectable elements because they are considered expressions.[84] On the contrary, a game's rules, mechanics, and other functional elements are not copyrightable because they are considered ideas.[85] In addition to copyrights, video game

78. Tavinor, *supra* note 63; *see also* Sedig et al., *supra* note 61.

79. Deborah F. Buckman, Annotation, *Intellectual Property Rights in Video, Electronic, and Computer Games*, 7 A.L.R. Fed. 2d 269 (2005).

80. The Copyright Act defines 'literary works' as "works, other than audiovisual works, expressed in words, numbers, or other verbal or numerical symbols or indicia, regardless of the nature of the material objects, such as books, periodicals, manuscripts, phonorecords, film, tapes, disks, or cards, in which they are embodied." 17 U.S.C. § 101.

81. The Copyright Act defines 'audiovisual works' as "works that consist of a series of related images which are intrinsically intended to be shown by the use of machines, or devices such as projectors, viewers, or electronic equipment, together with accompanying sounds, if any, regardless of the nature of the material objects, such as films or tapes, in which the works are embodied." 17 U.S.C. § 101.

82. *See* Buckman, *supra* note 79 ("The court acknowledged that a video game was copyrightable as an audiovisual work regardless of whether the underlying computer program was copyrighted.").

83. *See* Tetris Holding, LLC v. Xio Interactive, Inc., 863 F. Supp. 2d 394, 410 (D.N.J. 2012) (stating that while the defendant did not copy the source code and exact images from the plaintiff, the defendant did not dispute that they copied almost all of the visual look of the plaintiff's game).

84. Drew S. Dean, Comment, *Hitting Reset: Devising a New Video Game Copyright Regime*, 164 U. PA. L. REV. 1239, 1254 (2016).

85. Sonali D. Maitra, *It's How You Play the Game: Why Videogame Rules Are Not Expression*

inventions may also be granted patent protection under 35 U.S.C. § 101.[86] Patentable areas of video games include gaming consoles, controllers, and game mechanics.[87]

III. JUDICIAL AMBIGUITY REGARDING COPYRIGHT AND PATENT PROTECTION

Although intellectual property rights are designed to encourage the flourishing of innovative and valuable works, it is important to understand that no idea is wholly new.[88] The line between what is innovative and what is derivative may oftentimes be a subjective finding. The video game industry in particular is known for having developers that commonly imitate and borrow aspects of each other's video games.[89] For instance, take Capcom's *Street Fighter II* and Data East's *Fighter's History*. Both video games were one-on-one fighting games with the same general mechanics, characters, and artwork.[90] Capcom took notice of the obvious similarities and sued Data East for infringement in 1993.[91]

Protected by Copyright Law, 7 LANDSLIDE 34, 36 (2015).; *see also* Lotus Dev. Corp. v. Borland Int'l, Inc., 49 F.3d 807, 815 (1st Cir. 1995) (asserting that a menu command hierarchy was a method of operation, and therefore uncopyrightable), *aff'd*, 516 U.S. 233 (1996).

86. *See generally* Kyle Gross, Comment, *Game On: The Rising Prevalence of Patent-Related Issues in the Video Game Industry*, 12 SMU SCI. & TECH. L. REV. 243 (2017).

87. *Id.* at 253.

88. *See* BENTLY ET AL., *supra* note 30, at 157 ("Consider how, if an 'expression of ideas' is to convey what it seeks to express, its originality in doing so must be carved out of symbolic codes which are *already there*. No utterance or written work is wholly new.").

89. Dean, *supra* note 84, at 1249 ("To a great extent such copying is both healthy and essential: the wide variety of games available today is due to the fact that new developers have innovated and 'riffed off' of the storylines, game mechanics, and design elements of earlier video games."); Kuehl, *supra* note 66, at 339 ("Successful games are made by borrowing ideas."); *see also* infra Section V.A.

90. *See* Capcom U.S.A., Inc. v. Data E. Corp., No. C 93-3259 WHO, 1994 WL 1751482, at *2, *3-4 (N.D. Cal. Mar. 16, 1994); see also Matt Leone, *Street Fighter 2: An Oral History,* POLYGON (Feb. 3, 2014), https://www.polygon.com/a/street-fighter-2-oral-history/chapter-4 ("There's a colorful background and the fight takes place in a center circle, the fighters square off, they're in an arcade game.").

91. Complaint at 42, Capcom USA, Inc. v. Data E. Corp., No. 3:93CV03259 (Sept. 3, 1993).

FIGURE 1: *STREET FIGHTER II* AND *FIGHTER'S HISTORY*[92]

However, in *Capcom U.S.A., Inc. v. Data East Corp.*,[93] the court found that the alleged similarities in the two games' control sequences and general presentation and flow of the game are not eligible for copyright protection because they fall within the merger and scenes-à-faire doctrines respectively.[94] Such unprotectable elements included the specific joystick and button combinations used to invoke particular fighting moves; the "attract mode" and "VS." screens; the method of selecting characters; and the game's method for designating winners and tracking a fighter's vitality during a fight.[95] Ultimately, while the court found that three of the characters and five of the special moves in *Fighter's History* were copied from *Street Fighter II*, that was not sufficient to establish substantial

92. See *Street Fighter II* (Capcom 1991) for the top image; see *Fighter's History* (Data East 1993) for the bottom image. In *Capcom U.S.A.*, the court found that the characters of Chun-Li (top image, left character) and Feilin (bottom image, left character) were similar, but not "virtually identical". 1994 WL 1751482, at *14. This reasoning alongside the court's reasoning for the games' other similarities led the court to ultimately find there was no substantial similarity between the two games. Dean, *supra* note 84, at 1262.

93. 1994 WL 1751482.

94. *Id.* at *6-8.

95. *Id.*

similarity for the work as a whole.[96] Ironically, this was during a legal era where courts used the total concept and feel test[97] whereby infringement is predicated upon the ordinary observer's reaction to viewing the works.[98] Even Data East's trial attorney, Claude Stern, conceded in a later interview, "the fact of the matter is the Data East artists were copying *Street Fighter*. The ultimate work wasn't a slavish copy—a pixel-by-pixel copy—but they had evidence that we were copying things."[99]

Compare this with *Tetris Holding, LLC v. Xio Interactive, Inc.*,[100] where the court found that *Tetris*'s style, design, shape, and movement of the different blocks ("tetrominoes") may be copyrighted as protectible expressions.[101] Additionally, the court found that the dimensions of the playing field, the display of "garbage" lines, the appearance of "ghost" or shadow pieces, the display of the next piece to fall, the change in color of the pieces when they lock with the accumulated pieces, and the appearance of squares automatically filling in the game board when the game is over were all protectable elements.[102] One may easily frame such aforementioned elements as either control sequences or a part of the general presentation and flow of the game which would render such elements unprotectable under the *Capcom U.S.A., Inc.* standard.[103]

96. Dean, *supra* note 84, at 1262.

97. Leone, *supra* note 90; *see also* Carl A. Sundholm, *High Technology Jurisprudence: In Defense of Look and Feel Approaches to Copyright Protection*, 8 SANTA CLARA HIGH TECH. L.J. 209, 217 (1992) (stating the "look and feel" approach was originally a modification of the earlier phrase "total concept and feel.").

98. Sundholm, *supra* note 97, at 217-18.

99. Leone, *supra* note 90.

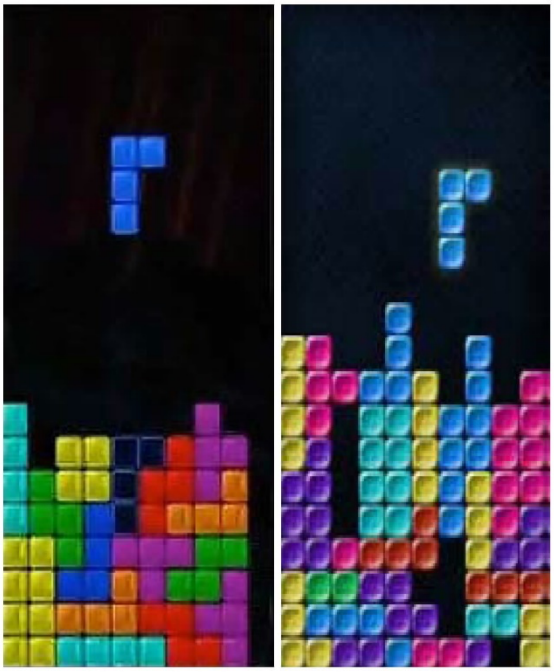
100. 863 F. Supp. 2d 394 (D.N.J. 2012).

101. *Id.* at 410-11.

102. *Id.* at 413.

103. *See* Dean, *supra* note 84, at 1254 ("[W]hat constitutes a rule of the game, as opposed to an expression of that rule, fundamentally changes what is protectable.").

FIGURE 2: *TETRIS* AND *MINO*[104]



As such, there is no exact science in determining the scope of intellectual property rights;[105] judges must necessarily impose their own value judgments.[106] How these value judgments are manifested can be seen in how video games are categorized as "audiovisual works" under the Copyright Act;[107] the inherent obscurity in determining which elements of a work are ideas and which elements are expressions under the idea-expression dichotomy;[108] the different jurisdictional tests used in

104. *Tetris Holding, LLC*, 863 F. Supp. 2d at 410 (displaying gameplay from *Tetris* on the left and *Mino* on the right).

105. This is despite the fact that the rules and principles that govern judicial opinions are supposed to be objective. *See* Alfred C. Yen, *Copyright Opinions and Aesthetic Theory*, 71 S. CAL. L. REV. 247, 248-49 (1998).

106. Richard H. Jones, *The Myth of the Idea/Expression Dichotomy in Copyright Law*, 10 PACE L. REV. 551, 566 (1990).

107. *See infra* Section III.A.

108. *See infra* Section III.B.

determining when non-literal copying has occurred;[109] and the process of determining which works are patentable.[110]

A. Problems Using The Audiovisual Works Category For Video Games

The Copyright Act of 1976, the most recent Copyright Act to date,[111] was a revamp of the prior Copyright Act of 1909.[112] Computer technology was arguably not on the drafters' minds, and so it was not until a subsequent amendment in 1980 that computer programs, which include video games, were expressly allowed to be copyrightable.[113] Video games are legally considered computer programs because they are created in source code and then compiled into object code that instructs a computer to produce sounds and/or images on a television, computer, or other screen display.[114]

Around this time, computer copyright litigation was in its very early stages of development and the case law was in a state of flux and contradiction.[115] The disarray of the courts was partially due to the rapid innovation occurring within the field of computer technology.[116] As with most technological changes, the courts tend to lag behind.[117] Computer programs were being conceptualized within traditional constitutionally-based concepts of copyright law, which they arguably could not be properly conceptualized within.[118]

In *Midway Mfg. Co. v. Artic Intern., Inc.*,[119] the Seventh Circuit Court of Appeals recognized that video games do not fit squarely into the

109. *See infra* Section III.C.

110. *See infra* Section III.D.

111. U.S. COPYRIGHT OFFICE, *Copyright Law of the United States (Title 17)*, https://www.copyright.gov/title17/#:~:text=The%20United%20States%20copyright%20law,19%2C%201976%2C%20as%20Pub (last visited Dec. 21, 2023).

112. U.S. COPYRIGHT OFFICE, GENERAL GUIDE TO THE COPYRIGHT ACT OF 1976 (1977).

113. Buckman, *supra* note 79; Midway Mfg. Co. v. Artic Int'l, Inc., No. 80 C 5863, 1981 WL 1390, at *8 (N.D. Ill. June 2, 1981) ("It seems clear that the framers of the Copyright Act did not consider the specific problems raised by advanced electronic games.").

114. MARK S. LEE, ENTERTAINMENT AND INTELLECTUAL PROPERTY LAW § 16:3 (2023).

115. Sundholm, *supra* note 97, at 210-11.

116. *Id.*

117. *Id.*; *see also* Kyle Coogan, *Let's Play: A Walkthrough of Quarter-Century-Old Copyright Precedent as Applied to Modern Video Games*, 28 FORDHAM INTELL. PROP. MEDIA & ENT. L.J. 381, 385 (2018) ("Video games have existed since at least the early 1950s….It was not until their introduction into mainstream society a couple of decades later, however, that they would spawn extensive litigation over their copyrightability.").

118. David W. T. Daniels, *Learned Hand Never Played Nintendo: A Better Way to Think about the Non-Literal, Non-Visual Software Copyright Cases*, 61 U. CHI. L. REV. 613, 624 (1994).

119. 704 F.2d 1009 (7th Cir. 1983).

definition of "audiovisual works."[120] While "audiovisual works" under its statutory definition are "works that consist of a series of related images"–suggesting the series of images are in a fixed order–each time a video game is played, a different sequence of images appears on the screen of the video game machine.[121] This is due to the interactive nature of video games, such as the player's ability to control their character using a controller.[122] Nevertheless, the court in *Midway Mfg. Co.* found that video games still constitute audiovisual works since the legislative history of the Copyright Act of 1976 suggests that Congress wanted to interpret the Act's provisions broadly.[123] Despite acknowledging that video games are not a fixed "series of related images," to what extent a video game's repetitive sequences are protectable was left unanswered by the court.[124] Take for instance, how games often have subplots layered throughout their gameplay.[125] Where one sequence of events stops and another sequence begins may not always be clear.[126]

A few years later, the Court of Appeals for the District of Columbia in *Atari Games Corp. v. Oman*[127] attempted to clarify that the total sequence of the images displayed as the game is played is copyrightable, while individual frames are not.[128] The court elaborated that this means that as long as there is a "minimal degree of creativity" in the "choice and ordering" of a video game, the game as a whole may be copyrightable as an "audiovisual work."[129] Once again, the question surrounding which, what, and how many choices and orders must be original to receive copyright protection was left unanswered.

Much like all copyright issues, this view is merely a product of a court imposing its own value judgments in deciding what is copyrightable.[130] In other words, there is nothing objectively true to the view that the copyrightability of video games lies in the total sequence of the images displayed as the game is played.[131] Rather, it is equally logical that the

120. *Id.* at 1011.

121. *Id.*

122. *See* Blythe Bull, *From Arkham to* Arcane*: Assessing Video Game Intellectual Property through Comic Book Characters and Caselaw Comparisons*, 57 NEW ENG. L. REV. 195, 208 (2023).

123. *Midway Mfg. Co.*, 704 F.2d at 1011.

124. *See generally id.*

125. Pearce, *supra* note 61.

126. *See infra* Section IV.A.

127. 888 F.2d 878 (D.C. Cir. 1989).

128. *Id.* at 883.

129. *Id.*

130. Jones, *supra* note 106, at 566.

131. *See generally* Yen, *supra* note 105.

individual frames may be copyrightable as "pictorial, graphic, and sculptural works" under 17 U.S.C. § 102(a)(5).[132]

B. The Meaningless Nature of the Idea-Expression Dichotomy

While the principle behind the idea-expression dichotomy seems simple, the problem is that it uses circular reasoning.[133] Within Western philosophy, an idea is essentially some human mental conception or representation.[134] In this view, there is no gap between ideas and expressions because expression is the principal tool of thought.[135] In other words, ideas cannot exist without some form of expression.[136] To illustrate, imagine trying to describe the "idea" behind the Mona Lisa.[137] It would be nearly impossible because "a work of art cannot be described; it can only be experienced."[138] Thus, drawing a line between idea and expression will inevitably be arbitrary no matter where the line is drawn.[139]

In fact, the concept that ideas and expressions are invariably intertwined is illustrated by early copyright cases supporting the position that ideas and expressions do not fall into fundamentally different categories.[140] It was not until *Baker v. Selden*,[141] which found that the plaintiff could not copyright certain forms used in his new system of bookkeeping ostensibly as a means to protect the idea underlying that system,[142] that the idea-expression dichotomy started to take shape.[143] The idea-expression dichotomy was eventually codified in the 1976 Copyright Act.[144]

The idea-expression dichotomy still remains vague to this day. For one, the Copyright Act provides no guidance in determining which concepts are considered ideas and which are considered expressions.[145] Once again, in using the idea-expression dichotomy, judges must necessarily impose

132. *See* 17 U.S.C. § 102(a)(5).
133. Jones, *supra* note 106, at 607.
134. *Id.* at 564.
135. *See* BENTLY ET AL., *supra* note 30, at 190.
136. Jones, *supra* note 106, at 564; *see also id.* at 565 ("[T]here are no unexpressed ideas.").
137. Triangle Publ'g, Inc. v. Knight-Ridder Newspapers, Inc., 626 F.2d 1171, 1181 (5th Cir. 1980).
138. *Id.*
139. *Id.* at 1179.
140. Jones, *supra* note 106, at 554.
141. 101 U.S. 99 (1879).
142. *Id.* at 103.
143. Cruz, *supra* note 6, at 231.
144. *Triangle Publ'ns, Inc.*, 626 F.2d at 1179; 17 U.S.C. § 102.
145. Cruz, *supra* note 6, at 222.

their own value judgments in determining which elements of a work are and are not copyrightable.[146]

In addition to the problems surrounding the idea-expression dichotomy, the copyrightability of particular elements gets further complicated as some courts find that an original combination of individually unprotectable elements is itself protectable.[147] The test requires a finding that the "elements are numerous enough and their selection and arrangement original enough that their combination constitutes an original work of authorship," an explanation that is intuitively understandable but circular.[148]

C. Jurisdictional Uncertainty Regarding Video Game Copyright Infringement Claims

Courts have recognized that copyright infringement of video game elements can occur even when the element has not been duplicated exactly.[149] Copyright infringement may be established when the plaintiff can show either (1) the defendant directly copied the plaintiff's work, or (2) the defendant indirectly copied the plaintiff's work by showing (a) that the defendant had access to the copyrighted program, and (b) that there are probative similarities between the copyrighted material and the allegedly copied material.[150] Since evidence of direct copying is quite rare, most plaintiffs rely on the second method which requires a reasonable factfinder to find that the two works are substantially similar.[151] Nevertheless, there is jurisdictional uncertainty when deciding what test to use to find substantial similarity.[152]

146. Jones, *supra* note 106, at 566.

147. *See, e.g.*, Universal Furniture Int'l, Inc. v. Collezione Europa USA, Inc., 618 F.3d 417, 430 (4th Cir. 2010); Three Boys Music Corp. v. Bolton, 212 F.3d 477, 485 (9th Cir. 2000).

148. Satava v. Lowry, 323 F.3d 805, 811 (9th Cir. 2003).

149. *See* LEE, *supra* note 114, at § 1:35 ("Evaluating whether improper 'copying' has occurred is relatively simple when a second work is a word-for-word, note-for-note, frame-by-frame, or byte-for-byte duplication of the first. However, courts historically have recognized that 'copying' includes more than simple duplication.").

150. Gates Rubber Co. v. Bando Chem. Indus., Ltd., 9 F.3d 823, 832 (10th Cir. 1993).

151. *Id.* at 832-33; *see also* Mark L. Gordon, *Copying to Compete: The Tension Between Copyright Protection & Antitrust Policy in Recent Non-Literal Computer Program Copyright Infringement Cases*, 15 J. MARSHALL J. COMPUT. & INFO. L. 171, 177 (1996) ("A certificate of copyright registration, which is prima facie evidence of validity, usually satisfies the first prong.").

152. Mark E. Dailey, *Abstraction, Filtration, Comparison: The Difficult Task of Defining and Applying an Appropriate Substantial Similarity Test for Computer Software*, 34 SUFFOLK U. L. REV. 415, 416 (2001).

The Ninth Circuit uses an "analytic dissection" test whereby the court compares the protectable elements of the copyrighted work to the allegedly infringing work.[153] In a similar fashion,[154] the Second Circuit has used an "abstraction-filtration-comparison test," whereby the court first abstracts a program into a series of levels proceeding from the literal code to the most general non-literal components, and then assigns weights to the different abstraction levels before determining whether there is substantial similarity.[155] However, such tests have been criticized for essentially treating the sum of a video game's parts as greater than its whole.[156] Similarly, there are inherent problems in the lack of clear parameters for setting the correct level of abstraction for distinguishing ideas from expressions.[157]

On the opposite end of the spectrum, some courts have used the "total concept and feel" standard whereby substantial similarity is based on the ordinary observer's reaction to viewing the works as a whole.[158] Still, this test has proven to be difficult when a plaintiff alleges non-literal copying has occurred because the test does not require abstraction which is the accepted method of defining non-literal components.[159] Likewise, when arguing that there is copyright infringement regarding a literary work, this test has also been criticized since computer programs, including video games, are written in a source code that is not intuitively understood by most people.[160] Lastly, the "total concept and feel" standard has been criticized for allowing overly broad copyright protection which could lead to monopolization.[161] Overall, determining whether copyright infringement has occurred for non-literal copying is an interpretive activity rather than a matter of pure observation.[162]

153. *See, e.g.*, Data E. USA, Inc. v. Epyx, Inc., 862 F.2d 204, 208 (9th Cir. 1988).

154. *See* Oracle Am., Inc. v. Google Inc., 750 F.3d 1339, 1357 (Fed. Cir. 2014) (suggesting the Second and Ninth Circuits' tests are equivalent).

155. Dailey, *supra* note 152, at 434; *see also* LEE, supra note 114, at § 1:38.

156. LEE, supra note 114, at § 1:38.

157. B.J. Ard, *Creativity without IP? Vindication and Challenges in the Video Game Industry*, 79 WASH. & LEE L. REV. 1285, 1326 (2022).

158. *See, e.g.*, Dawson v. Hinshaw Music Inc., 905 F.2d 731, 733 (4th Cir. 1990); Dailey, *supra* note 152, at 425.

159. Dailey, *supra* note 152, at 425.

160. Anthony L. Clapes et al., *Silicon Epics and Binary Bards: Determining the Proper Scope of Copyright Protection for Computer Programs*, 34 UCLA L. REV. 1493, 1571-72 (1987).

161. Sundholm, *supra* note 97, at 219-22; *see generally* Cecile G. Nicolson, *The Total Concept and Feel Test Does Not Fulfill the Purpose of Copyright Law*, 45 AM. J. TRIAL ADVOC. 477 (2022) (discussing the shortcomings of the total concept and feel test).

162. BENTLY ET AL., *supra* note 30, at 185.

D. The Obscure Nature of the Alice/Mayo Test for Patents

Although laws of nature, physical phenomena, and abstract ideas fall outside the scope of the Patent Act, [163] they may still nevertheless be patentable. Under the Alice/Mayo test, in determining whether claims that fall into such categories (i.e., laws of nature, physical phenomena, and abstract ideas) can be patentable, courts consider the elements of each claim, both individually and as an ordered combination, to identify whether there is an inventive concept, or in other words, if additional elements transform the nature of the claim into a patent-eligible application.[164] Identifying whether there is an inventive concept is difficult, however, as 35 U.S.C. § 101 provides no guidance in determining what qualifies as an inventive concept.[165] Instead, judges are asked to rely on their own subjective sentiments in determining inventiveness.[166]

IV. IMPLICATIONS OF TETRIS HOLDING, LLC V. XIO INTERACTIVE, INC.

In *Tetris Holding, LLC v. Xio Interactive, Inc.*,[167] the Third Circuit evaluated whether there can be copyright infringement for a game's mechanics and rules in games without any kind of narrative.[168] The game of *Tetris* involves the manipulation of differently shaped colored blocks that fall at intervals from the top of the screen so that they may fit together like a puzzle.[169] In 2009, Xio Interactive, Inc. published its game, *Mino*, with gameplay nearly identical to *Tetris*.[170] Xio Interactive, Inc. argued that the elements they copied from *Tetris*–its rules, function, and expression essential to the gameplay–are not copyrightable because they are not expressions.[171] Nevertheless, in applying the abstraction-filtration-

163. Diamond v. Chakrabarty, 447 U.S. 303, 309 (1980).

164. Alice Corp. Pty. Ltd. v. CLS Bank Int'l, 573 U.S. 208, 217 (2014).

165. Vyas, *supra* note 60, at 3.

166. *Id.*

167. 863 F. Supp. 2d 394 (D.N.J. 2012).

168. *See generally id.* Note that the *Tetris Holding, LLC* court does acknowledge that rules and mechanics of video games are not copyrightable. *Id.* at 404. However, in finding certain elements of *Tetris* to be copyrightable, the court is effectively allowing rules and mechanics to be copyrightable. *See generally id.* In fact, the court somewhat acknowledges that the elements of *Tetris* are actually rules and mechanics by finding that Tetris is entitled to copyright protection for the "way in which [the game] chooses to express [its] game rules." *See id.* at 404-05.

169. Tavinor, *supra* note 63; *see also Tetris Holding, LLC*, 863 F. Supp. 2d at 409.

170. *See Tetris Holding, LLC*, 863 F. Supp. 2d at 397-98.

171. *Id.* at 399.

comparison test, the court found that there was substantial similarity between the two games and therefore copyright infringement.[172]

Like Data East in *Capcom U.S.A., Inc. v. Data East Corp.*,[173] it was evident that Xio Interactive, Inc. deliberately used *Tetris* as inspiration in making its game.[174] However, this time, the court reached the opposite conclusion–that there was copyright infringement. On the one hand, the decision in *Tetris Holding, LLC v. Xio Interactive, Inc.*[175] may suggest that video games may receive protection against obvious game clones that have little to no degree of original creativity. This would align with the courts' previous rulings that copyright infringement can be found where two works are virtually identical.[176] Furthermore, protecting works against obvious duplicates goes to the underlying rationale for intellectual property rights because it would theoretically allow developers to be able to be properly compensated for their works.[177]

On the other hand, the ruling may suggest that game mechanics and rules may increasingly become copyrightable. Prior to the *Tetris Holding, LLC* decision, copyright protection for video games had been particularly vulnerable to constraints by the merger doctrine since all video games consist of a combination of different abstract game mechanics and rules.[178] The merger doctrine is integral to video games because the video game industry is known to build off of competitors' games.[179] The norm of borrowing and imitation allows video games as a whole to progressively get better–developers will identify a number of perceived weaknesses in existing video games and then set out to produce a game that addresses such weaknesses.[180] Therefore, the potential domino effect of finding copyright infringement for game mechanics and rules may actually curb the progression of arts and sciences in the field of video games.

172. *Id.* at 408-12.

173. No. C 93-3259, 1994 WL 1751482 (N.D. Cal. Mar. 16, 1994).

174. *Tetris Holding, LLC*, 863 F. Supp. 2d 394 at 397 ("Xio was more than inspired by Tetris as Xio readily admits that its game was copied from Tetris and was intended to be its version of Tetris.").

175. *See id.*

176. *See* Steven G. McKnight, *Substantial Similarity Between Video Games: An Old Copyright Problem in a New Medium*, 36 VAND. L. REV. 1277, 1278 (1983).

177. Adler, *supra* note 21, at 319. *But see infra* Section V.A.

178. Dean, *supra* note 84, at 1256.

179. Brian Casillas, *Attack of the Clones: Copyright Protection for Video Game Developers*, 33 LOY. L.A. ENT. L. REV. 137, 148 (2013).

180. Arsenault, *supra* note 74, at 164.

A. Mechanics and Narrative

In general, how much a game is controlled by its mechanics and rules compared to its narrative can vary significantly.[181] Aside from its mechanics and rules, *Tetris* does not have any sort of narrative.[182] Therefore, it is plausible that courts may increasingly begin to find that the mechanics and rules of games with a narrative, even if such narrative is only minimal, are copyrightable. This would prove to be especially problematic because some games' narrative and mechanics may be conditional on each other. For instance, in *Street Fighter II*, the gameplay is focused not only on *how* characters can fight in one-off battles–the characters each have their own backstory, a unique fighting style, and a narrative that gives context to the reason why they are fighting and why the characters fight the way they do.[183]

Ultimately, the gameplay of *Street Fighter II* depends on its aesthetic and vice-versa–while the player must use the game's mechanics to perform a super move, the super move itself also manifests in the narrative aspects of the game.[184] As such, the question of where one series of images stops and another begins is somewhat blurred. If the court in *Capcom U.S.A., Inc. v. Data East Corp.*[185] found that the game's mechanics–such as the specific joystick and button combinations used to invoke particular fighting moves–were indeed protectable, then it would be unclear whether such protection would incidentally protect elements of the characters' design and backstory as well. This domino effect may lead some creators to hold monopolies over the basic foundations for not just game mechanics, but storytelling and design as well.

B. Open World Games

As discussed, because games are interactive in nature, it is more difficult to determine which parts compose a "[fixed] series of images" as required under The Copyright Act's definition of an "audiovisual work" than it would be for a film or TV show.[186] Some games *do* have a distinctly repetitive series of images. For instance, in *Tetris*, there is essentially no other

181. *See generally* Tavinor, *supra* note 63.

182. *Id.*

183. THE PLAY VERSUS STORY DIVIDE IN GAME STUDIES: CRITICAL ESSAYS 158-59 (Matthew Wilhelm Kapell ed., 2015).

184. *Id.* at 163.

185. *See generally* 1994 WL 1751482 (N.D. Cal. Mar. 16, 1994).

186. *See supra* Section III.A.

mechanic than the rotating and moving of the colored blocks.[187] Even *Street Fighter II* places significant limits on how much agency the player has.[188] Nevertheless, in other games, the player has significant discretion over how the game is played, such as where the player wants to go, what the player wants to do, and how the player wants to behave.[189] Accordingly, where "one series of images" starts and where another ends is, for the most part, discretionary.

One such example that illustrates a large level of player discretion is *Skyrim*. *Skyrim* starts with the player escaping a dragon that is destroying the city.[190] Immediately, the player has the option to be guided by either a Stormcloak or an Imperial–members of the opposite warring factions.[191] Depending on who the player chooses, either the Stormcloak or the Imperial describes pieces of the two main storylines to the player–the return of dragons and the civil war between the rebel Stormcloaks and the loyalist Imperials.[192] However, they each frame it differently, thereby impacting how the player may interact with the game's storylines in the future.[193] Furthermore, once the player has escaped, they are free to explore the open world and finish quests at their own leisure.[194] The player may choose to start one quest, and then before finishing such quest, start and finish a different quest. Choosing to finish one quest may also close off another potential quest.[195] Likewise, how the player chooses to fight–such as through one-handed combat, two-handed combat, unarmed combat, blocking, archery, and magic–will necessarily determine how the player's character evolves.[196] Abstracting which elements or "series of images" are copyrightable, if any, in *Skyrim* begins to look more like navigating through a perpetual maze.

The open-world concept utilized in *Skyrim* is not new. More powerful hardware systems have allowed video games to become more expansive

187. *See generally* Tavinor, *supra* note 63.

188. *See supra* notes 93-95 and accompanying text.

189. Karlyn R. Meyer, *Doctrine of the Dead: How* Capcom v. MKR *Exposes the Decreasing Fit Between Modern Copyright Infringement Analysis and Modern Video Games*, 9 CHI.-KENT J. INTELL. PROP. 132, 134-37 (2010).

190. David Simkins et al., *Unbroken Immersion: The Skyrim Experience*, 2 WELL PLAYED 13, 15-16 (2012), https://press.etc.cmu.edu/journals/well-played-vol-2-no-1.

191. *Id.*

192. *Id.*

193. *Id.*

194. *Id.* at 17-21.

195. *Id.* at 22.

196. *Id.* at 23-24.

than earlier video games.[197] Furthermore, some open-world games forego any kind of storyline altogether.[198] Over time, video games have moved from scripted to unscripted, from linear to nonlinear, and from passive to active.[199]

Where there is technological growth, courts will often default to social norms to determine what the law should be–in turn, these courts' decisions create new social and legal norms.[200] Furthermore, once established, norms become difficult to curb.[201] Continuing to use the "fixed series of images" standard to determine the scope of a video game's IP would be detrimental as video games evolve to become more complex and immersive since identifying objectively discrete elements ripe for copying would become an increasingly arbitrary task.[202] Moreover, should courts begin to find open-world game elements copyrightable, the argument that any connected element should inevitably also be protected is multiplied tenfold, thereby potentially giving video game developers monopolies over a wide array of features.

V. PROPOSED ALTERNATIVE TO VIDEO GAME COPYRIGHTS FOR MECHANICS AND RULES

A. The Economic Incentive Fallacy

The longstanding rationale behind intellectual rights is that they are designed to provide economic incentives for individuals to create works.[203] In conventional economic models, money is understood to be the universal currency for all wants and desires.[204] Therefore, providing economic

197. Meyer, *supra* note 189, at 135.

198. Such trends reflect the notion that lack of agency in a video game detracts from the entertainment. *See id.*

199. *Id.* at 137.

200. MARGERY R. HILKO, DISRUPTING COPYRIGHT: HOW DISRUPTIVE INNOVATIONS AND SOCIAL NORMS ARE CHALLENGING IP LAW 44 (2021).

201. *Id.* at 22.

202. *See* Meyer, *supra* note 189, at 142 ("In open-world games, the only identifiable plot may exist at high levels of abstraction that have little probative value to the issue of copying.").

203. Johnson, *supra* note 17. *But* see *id.* at 639-40 (arguing that the prime motivations behind copyright-type laws were originally press censorship and state control, and the incentive theory has been used to justify the retention and expansion of IP law *ex post facto*).

204. *Id.* at 642.

incentives to individuals is assumed to be a necessary condition for the creation of valuable works.[205]

However, the premise that economic incentives are as important as they purport to be for the flourishing of valuable works is deeply misguided.[206] Income is just one reason individuals engage in work–individuals also derive utility from highly valued social relations, a sense of self-determination, and capitalizing upon their own competence.[207] In other words, individuals are not just motivated to see the ends to their means, but also enjoy seeing the means to their ends.[208] What is more, a great volume of research finds that external rewards can actually *disincentivize* creative labor.[209] This is because, over time, people begin to see their creative labor as mere instruments for the attainment of monetary rewards.[210]

Ironically, intellectual property's disincentivization of creative labor may actually contribute to an entirely new problem–game clones. While intellectual property rights allow a creator to be compensated through the control and profits of their game copies,[211] oftentimes this only goes as far as preventing literal copying (i.e., pirating), or something akin to literal copying, such as what occurred in *Tetris Holding, LLC v. Xio Interactive, Inc*.[212] Some game developers, however, resort to creating game clones of

205. *Id.* at 640 ("According to classical economics doctrine, extrinsic incentives are necessary for the production of intellectual property for the simple reason that extrinsic incentives are necessary for all human behavior.").

206. *Id.* at 641-42.

207. *Id.*

208. *See id.* ("[I]ndividuals derive utility from processes, not just from outcomes."); *see also id.* ("[T]he drive to engage in [an] activity because it is interesting and involving."). *But see id.* (discussing how these motivations mostly apply to novel and challenging intellectual tasks, rather than dull and repetitive tasks such as milling flour.). For an example of how a video game developer engaged in novel and intellectual tasks, *see generally* Matz Bertz, Grand Theft Auto V, GAME INFORMER (Jul. 9, 2013),

https://web.archive.org/web/20130710144717/http://www.gameinformer.com/games/grand_theft_auto_v/b/xbox360/archive/2013/07/09/grand-theft-auto-v-gun-combat.aspx.

209. Johnson, *supra* note 17, at 643.

210. *Id.*

211. *See* Adler, *supra* note 21, at 319 ("Copyright law tells us that in a world like this, in which one could not control and profit from one's copies, creativity would shut down.").

212. Kuehl, *supra* note 66, at 341 ("[T]he majority of clones are visually distinct enough that an observer can tell they are not the same game when placed next to whichever game they are allegedly copying, making it harder to prove infringement and more difficult for a future court to reach the same ruling."); *see also Tetris Holding, LLC v. Xio Interactive, Inc.,*, 863 F. Supp. 2d 394, 410 (describing how Xio's game was akin to literal copying even though Xio did not copy the literal source code or images of *Tetris*).

an already popular game, not by copying a game's exact whole, but by simply replicating the same schema as the game it is modeled after.[213] Without proper incentives to engage in novel and challenging intellectual tasks, it is easy to see why game developers would rather resort to creating easy cash-in opportunities.[214]

Nevertheless, this does not mean that game developers have no protections against video game clones without the aid of intellectual property rights. Game developers who create valuable, innovative works have what is called a "first mover advantage" that often grants them brand recognition and loyalty.[215] Furthermore, the "first mover advantage" allows game developers to increase returns through scale and "quickness on the learning curve" since copying takes at least a little bit of time.[216]

Secondly, not all video game "clones" should be considered uninspired duplicates.[217] It is theoretically impossible to create a work that is not in some ways influenced by the works that preceded it.[218] Some works, instead of merely replicating a past schema, actually "enhance" the schema by revising it.[219] Take for instance, how the shooter video game genre initially started with an abstract and a limited dimensional playing field (e.g., *Space Invaders*), and then over time evolved into the First-Person Shooter genre as game developers brought certain processes to the forefront.[220]

213. *See supra* notes 93-95 and accompanying text; Arsenault, *supra* note 74, at 164.

214. Arsenault, *supra* note 74, at 164.

215. Johnson, *supra* note 17, at 662 ("[C]opyists look a little less lustrous to consumers."); *see generally* Adler, *supra* note 21 (arguing that the norm of authenticity for artworks makes copyright superfluous.); *see also* Jamin Warren, Attack of the Clone Attackers, KILL SCREEN (Feb. 2, 2012), https://killscreen.com/previously/articles/attack-clone-attackers ("The problem isn't cloning. It's credit . . . An informed public is a powerful public, and the only way to stop clones is to disgrace them.").

216. Johnson, *supra* note 17, at 662.

217. Dean, *supra* note 84, at 1250 n.63 ("The term [clone] carries a wide range of meanings in the industry. Sometimes the term is used positively to describe an homage or a 'spiritual successor' to the original. Other times, it is used to describe a 'rip off' or 'knock off,' implying the copied game is more like a counterfeit. In the positive sense, cloning is considered the best way for a genre of videogames to develop and improve, and many of today's well-established genres grew out of a series of successful clones.").

218. Arsenault, *supra* note 74, at 164. ("The artist cannot start from scratch but he can criticize his forerunners.").

219. *Id.*

220. *Id.* at 166.

B. The History of Video Games and Patent Protection

Computers are composed of both hardware–the physical equipment–and software–programs by which the equipment works.[221] Early video games–those that use machine-implemented devices–had patents protecting the game's hardware since that is where the gameplay method was encoded.[222] In the second generation of video games, the gameplay method became encoded into a software.[223] Computer software was initially patent-ineligible because they were viewed as mathematical algorithms.[224] As such, a patent on a computer software was viewed as a monopoly on a process in the train of human thought.[225]

Nevertheless, the notion that strands of computer software were mathematical algorithms changed in *Gottshalk v. Benson*[226] whereby the Supreme Court clarified that mere processes employed within the language of a computer software were expressions of an algorithm that did not necessarily make the entire computer software an algorithm.[227] Later, in 1989, the US Patent Office officially announced it would recognize computer software as patentable.[228]

In 2001, Sega was able to get a patent for the game mechanics of the game *Crazy Taxi*.[229] In fact, not long after, in 2003, Sega brought a patent infringement claim for similar mechanics in the game *The Simpsons: Road Rage*.[230] The case was eventually settled out of court, and therefore the validity of the patent was left undetermined.[231] Notably, however, Sega was able to patent game mechanics before the Alice/Mayo test was articulated for determining whether traditionally unpatentable subject

221. Rydstrom, *supra* note 20.

222. Connors, *supra* note 46, 520.

223. *Id.* at 520-21.

224. Gross, *supra* note 86, at 248. The rationale for this rule, however, has not been clearly stated. In its 1981 decision in Diamond v. Diehr, the Court characterized mathematical algorithms as part of the laws of nature. 450 U.S. 175, 187 (1981). Meanwhile, in its 1972 opinion in Gottschalk v. Benson, the Court treated them as ideas. 409 U.S. 63, 71-72 (1972).

225. Gross, *supra* note 86, at 248.

226. 409 U.S. 63 (1972).

227. Gross, *supra* note 86, at 249.

228. *Id.* at 250.

229. The patent protected an arrow which hovered over a vehicle acting to guide the player in an open driving world. U.S. Patent No. 6,200,138 (filed Oct. 30, 1998).

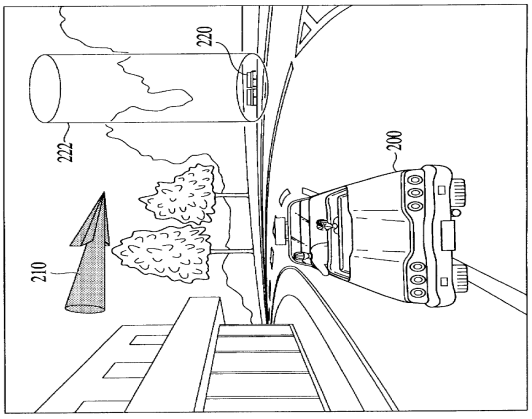
230. Complaint at 1, Sega of America, Inc. v. Fox Interactive, No. C 03 5468 (N.D. Cal. 2003).

231. Biography Page of Robert J. Yorio, CARR & FERRELL LLP, https://web.archive.org/web/20070928051726/http://www.carrferrell.com/attorneys_yorio.html (last visited Mar. 6, 2024).

matters can actually be patented,[232] therefore, showing that patentable game mechanics are not just an impossible feat.[233]

FIGURE 3: CRAZY TAXI'S PATENT[234]

FIG. 14



C. Video Games Without Narratives Should Be Granted Patents Instead of Copyrights

Although the importance of intellectual property rights in providing economic incentives is overstated,[235] there are still other factors to consider before deciding to abandon the whole intellectual property rights framework. For instance, the concept of 'moral rights'–the belief that an

232. *See supra* Section III.D.

233. *See* Shubha Ghosh, *Patenting Games: Baker v. Selden Revisited*, 11 VAND. J. ENT. & TECH. L. 871, 873 (2021) ("The rules of a game, however, are functional and procedural, and therefore could arguably be protected by patent law.").

234. U.S. Patent No. 6,200,138 (filed Oct. 30, 1998).

235. *See supra* Section V.A.

author's personality is an integral aspect of their work and that misuse of their work causes him personal, non-financial harm–is particularly salient for creative works.[236] Thus, I propose that the use of software patents is a more sensible way for video games that are limited to just mechanics and rules to be able to receive intellectual property rights compared to copyrights. As discussed, judges must inherently impose their value judgments when determining whether a work may receive intellectual property rights, whether for copyrights or patents.[237] The key differences, however, are that patents require a more stringent set of requirements to be granted[238] and patents have a shorter protection period.[239]

The effect of these differences is twofold. First, having more stringent requirements means that it would be more difficult for game developers to be able to patent their mechanics and rules. Receiving copyright protection is a very low bar to meet–even the slightest amount of creativity will suffice.[240] Meanwhile, patents require that the claim be novel,[241] non-obvious,[242] and useful.[243] Overcoming the non-obvious requirement for video game mechanics in particular is difficult since so many titles are iterative improvements on what has already been done.[244] Second, any potential monopoly is further mitigated by the fact that patents receive a

236. Bently et al., *supra* note 30, at 9.

237. *See supra* Section III.

238. Gross, *supra* note 86, at 244; *see also* Feist Publications, Inc. v. Rural Telephone Service Co., Inc., 499 U.S. 340, 345 (1991) (finding that novelty is not necessary for copyright protection); Sega Enterprises Ltd. v. Accolade, Inc., 977 F.2d 1510, 1526 (9th Cir. 1992).

239. *Compare* 35 U.S.C. § 154(a)(2) *and* 35 U.S.C. § 173, *with* 17 U.S.C. § 302.

240. *Feist Publications, Inc.*, 499 U.S. at 345.

241. Tun-Jen Chiang, *Defining Patent Scope by the Novelty of the Idea*, 89 WASH U. L. REV. 1211, 1218 (2012) (finding that in determining whether a claim is novel, the patentee must identify the feature that makes the claim new and have the claim compared to all prior embodiments to see if the claimed feature is in fact new).

242. *See* Gregory Mandel, *The Non-Obvious Problem: How the Indeterminate Nonobviousness Standard Produces Excessive Patent Grants*, 42 U.C. DAVIS L. REV. 57, 62 (2008) ("An inventor does not receive a patent for a merely new and useful invention, but only for an invention that measures a significant advance over existing technology…The nonobviousness requirement protects society against the social costs both of denying a deserving patent and of granting an undeserving monopoly.").

243. See McKenna & Sprigman, *supra* note 51, at 500-516 for a discussion on how "useful" is construed.

244. Ard, *supra* note 157, at 1333; *see also* Bonito Boats, Inc. v. Thunder Craft Boats, Inc., 489 U.S. 141, 146 (1989) (stating that nonobviousness standard provides "a careful balance between the need to promote innovation and the recognition that imitation and refinement through imitation are both necessary to invention itself and the very lifeblood of a competitive economy").

shorter protection period. This is especially important since the gaming industry is constantly making progress in its technology and design.[245]

Nevertheless, it has also been argued that video games are particularly susceptible to the broad application of patent rights because video games have a number of elements that could be patented within any of their multi-step development processes (e.g., patents involving the hardware, software, algorithms, and data structures of a game) that can lead to spill over protection beyond the actual invention.[246] The issue with granting game mechanics intellectual property rights, however, is not necessarily that the processes by which they receive protection may be overly broad. Rather, it is the potential that the ideas behind such game mechanics are so broad that they cause courts to extend protection to other game mechanics or narratives.

1. The Application of Patents to the Game of Tetris

The game *Tetris*, specifically, can benefit from the use of both utility and design patents to protect the rules of mechanics of the game. For instance, the size of the playing grid[247] may benefit from the protection of a design patent. Although it may not seem striking today, in the 1980s when the game *Tetris* was originally developed, the concept that a game's playing field would not take up the entire screen appeared new and original.[248] Similarly, the element of "ghost lines" has the potential to be protected by a utility patent. A "ghost line" is an outline of a tetromino that appears in the location where the tetromino would fit.[249] Should there be a fact-finding that the element of a "ghost line" was in fact non-obvious at the time, meeting the requirement that the claim also be novel should naturally follow.[250] In fact, the *Tetris Holding, LLC* court acknowledges the fact

245. Gross, *supra* note 86, at 254.

246. *Id.*

247. Tetris Holding, LLC v. Xio Interactive, Inc., 863 F.Supp.2d 394, 413 (D.N.J. 2012) (describing the size of the playing field as being 20 units high by 10 units wide).

248. *See* 35 U.S. Code § 171(a) ("Whoever invents any new, original and ornamental design for an article of manufacture may obtain a patent therefor, subject to the conditions and requirements of this title."); *see generally* DAN ACKERMAN, THE TETRIS EFFECT: THE GAME THAT HYPNOTIZED THE WORLD 31-34 (2016) (describing the process for how the game *Tetris* was made).

249. *Tetris Holding, LLC*, 863 F.Supp.2d at 413.

250. *Compare* Mandel, *supra* note 242, at 59 (stating that to determine whether a claim is non-obvious, there must be a determination of what a person of ordinary skill in the art would have already known to use as a baseline against which to measure the nonobviousness of the claim, and for the claim to also be measured by its advancement over prior art.), *with* Chiang, *supra* note 241 (finding that for a claim to be novel, the inquiry is whether the claim has already been made).

that the mechanics of a *Tetris* game variation, *Dr. Mario*, was able to be successfully patented.[251]

CONCLUSION

Intellectual property rights governing video games, as with all other works, are aimed at progressing the arts and sciences through the flourishing of valuable works.[252] It is important not only that video game developers be properly compensated for their works through intellectual property rights, but that the intellectual property rights protecting these works do not lead to oppressive monopolies. Determining how video games ought to be protected is an especially difficult task because of the industry's lack of consensus in defining what video games really are.[253] This problem is further compounded by the legal system's own subjective findings on how video games ought to be defined.[254] Nevertheless, one fact remains clear in order for the video game industry to continue to grow and improve–game mechanics and rules should not be copyrightable. A finding that game mechanics and rules are copyrightable can incidentally lead to monopolies over the basic foundations of game design.[255] This reasoning was ultimately overlooked in *Tetris Holding, LLC v. Xio Interactive, Inc.*, where the court effectively found that *Tetris*'s mechanics and rules were copyrightable. To provide economic incentives to video game developers while also ensuring that the marketplace of ideas is not obstructed, I propose that video games consisting of only mechanics and rules should not be granted copyrights but instead patents.

See also McKenna & Sprigman, *supra* note 51, at 501 n.33 (discussing how modern patent law includes a wide range of what is considered functional under the "usefulness" requirement).

251. *See Tetris Holding, LLC*, 863 F.Supp.2d at 412; *see also* U.S. Patent No. 5,265,888 (filed Feb. 19, 1993).

252. Johnson, *supra* note 17, at 634; *see also* U.S. CONST. art. I, § 8, cl. 8.

253. *See supra* Section II.A.

254. *See supra* Section II.B.

255. *See supra* Section IV.