Drawing a Line Between Idea and Expression in Videogame Copyright: The Evolution of Substantial Similarity for Videogame Clones

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INTRODUCTION

The videogame industry is booming.[1] Much of this growth can be attributed to the reproduction and re-envisioning of successful game ideas. Many of today's popular videogame genres developed as a result of the industry's successful first-in structure.[2] For example, Westwood Studios' *Dune II: The Building of a Dynasty* was credited with the establishment of the Real-Time Strategy ("RTS") genre.[3] The success of *Dune II* led to the creation of Blizzard Entertainment's *Warcraft: Orcs & Humans* and *StarCraft,* both of which rank among the industry's most successful videogame franchises.[4] The success of these two games stemmed from Blizzard's ability to expand and adapt *Dune II.* If copyright law had prevented Blizzard from producing similar RTS games, *StarCraft* and many other popular RTS games may never have reached the market. There is a sense of acceptance for this sort of copying in the videogame industry. Developers appreciate the freedom to reproduce game ideas, so long as the borrowing is not excessive.[5] However, not everyone in the industry feels the same, and disputes over ownership of game concepts often result in legal action.

Copyright protection for videogames, especially for the independent developer, can be a double-edged sword. The ability to create and market a

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1. The growth of the videogame industry has outpaced the real growth of the United States economy by over 10%. STEPHEN E. SIWEK, VIDEO GAMES IN THE 21ST CENTURY: THE 2010 REPORT 2 (2010), http://www.theesa.com/facts/pdfs/VideoGames21stCentury_2010.pdf.

2. Acronyms "FPS" for "first person shooter" or "RTS" for "real-time strategy" are examples of videogame genera that rose from a series of successful clones.

3. Gmandam, *Games that Define the RTS Genre*, HOLD THE LINE (Apr. 7, 2013), http://www.holdtheline.com/threads/games-that-defined-the-rts-genre.5132/.

4. *WoW, How You Made It!*, GOLD4KEY, http://www.gold4key.com/default/news-view/aid/267.html (last visited Nov. 10, 2013).

5. Hidden homages to other works in a videogame are known as "Easter eggs." These homages are widely tolerated despite the potential copyright infringement.

novel game idea can be quite profitable.[6] However, it is not always clear which portions of a particular game are protected by copyright. Loose protections and permissible attitudes about copying from successful titles have led to a very innovative and creative market. However, that creativity can be easily appropriated by another for use in a competing product.

This Comment describes the state of the law regarding videogame copyright protection for games that copy features from existing titles. In the industry, such copying is colloquially known as "cloning."[7] Part I of this Comment describes the current state of the gaming industry and provides a description of various game concepts. Part I also includes a short summary of historical issues in videogame copyright law. Part II describes copyright law as it relates to videogame cloning and defines three major tests used to assess the similarity of videogames. Part II then examines several doctrines related to these tests. Part III reviews several historical cases, noting courts' ever-changing understanding of videogame copyright law and suggests a move toward stronger property rights. Part IV compares and contrasts recent and historical cases. This comparison reveals the current trend toward broader protection for videogame features and individual expressive elements though less restrictive application of copyright limiting doctrines. Part V discusses how this trend is positive for videogame developers because it requires cloners to include creative differences in order to distinguish their products. Changes to how courts apply the doctrines to all videogame clone cases ultimately create a more predictable copyright jurisprudence, thereby benefitting both game developers and the consumers who appreciate creativity in videogames.

I. THE PROBLEM

Developing videogames is an especially risky venture.[8] Large developers regularly try to beat their competitors by hastily getting new products to the market. Smaller developers often face difficulties even introducing their products into the market. In particular, independent game developers have collectively voiced concerns over "cloning," which is industry jargon for developing a game heavily inspired by, or very similar to, a prior existing title.[9] Developers of all business size rely on cloning.[10]

When it comes to cloning videogames, the law is unclear. Few cases

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6. Malathi Nayak, *FACTBOX—A Look at the $66 Billion Video-games Industry*, REUTERS (June 10, 2013), http://in.reuters.com/article/2013/06/10/gameshow-e-idINDEE9590DW20130610.

7. *Video Game Clone*, WIKIPEDIA, http://en.wikipedia.org/wiki/Video_game_clone (last visited Nov. 14, 2013).

8. *See generally* Mike Hogan, *"From Packaged Goods to Video Games: Eleven Months of Insight" Keynote Address from the 2009 Game.business.law International Summit on the Law and Business of Video Games*, 12 SMU SCI. & TECH. L. REV. 205, 210 (2009) (discussing risk factors of the videogame market).

9. Brian X. Chen, *For Creators of Games, a Faint Line on Cloning*, N.Y. TIMES (Mar. 11, 2012), http://www.nytimes.com/2012/03/12/technology/for-creators-of-video-games-a-faint-line-on-cloning.html?_r=1&pagewanted=all.

10. *Id.*

have been decided regarding videogames clones, leaving many confused over whether cloning constitutes copyright infringement.[11] Much of this uncertainty is linked to the idea-expression dichotomy of copyright law. The idea-expression dichotomy draws a conceptual line between unprotectable ideas and protected artistic expression.[12] Videogame clones copy many ideas from a prior title, but whether protectable expression is copied determines if there was copyright infringement. Historically, courts have issued conservative decisions about which aspects of videogames can receive copyright protection.[13] However, as the gaming industry and the judiciary's understanding of digital property advances, this trend appears to be changing.

A. CONCEPTS AND DEFINITIONS

First, it is essential to understand the parties responsible for producing and marketing games: (1) videogame developers, (2) videogame publishers, and (3) independent game developers. A videogame developer is a business or individual that produces videogame software or hardware.[14] Videogame developers come in all business sizes; from one-man operations, such as Mojang AB,[15] to enterprise organizations, like Nintendo[16] or Sony Computer Entertainment.[17] Developers produce a game's software, art, design, story, and sound effects. Often, individual game components are subcontracted out to a developer in a specialist studio. For example, a developer may contract with a specialist or art team to create certain visual effects.

Videogame publishers, businesses that focus on marketing videogames, work closely with the videogame developers. The videogame publishers operate like publishers in other media industries, handling manufacturing, distribution, and advertising.[18] In the current market, publishers are the primary financiers of videogames, especially for popular titles[19] like the *Call of Duty* franchise, which has sold over 100 million

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11. Kent Jordan & Robert Wilkinson, *A Review of 2011 Video-Game Litigation and Selected Cases*, 15 SMU SCI. & TECH. L. REV. 271, 281–84 (2012).

12. 1 MELVILLE B. NIMMER & DAVID NIMMER, NIMMER ON COPYRIGHT, § 2.03[D] [hereinafter NIMMER ON COPYRIGHT] ("Copyright may be claimed only in the 'expression' of a work of authorship, and not in its 'idea.'").

13. Kyle Orland, *Legal Landscape Gets Tougher for Blatant Game Clones*, ARSTECHNICA (Oct. 3, 2012), http://arstechnica.com/gaming/2012/10/legal-landscape-gets-tougher-for-blatant-game-clones/.

14. *Video Game Developer*, WIKIPEDIA, http://en.wikipedia.org/wiki/Video_game_developer (last visited Nov. 15, 2013).

15. *Mojang*, WIKIPEDIA, http://en.wikipedia.org/wiki/Mojang (last visited Nov. 15, 2013).

16. *Company History*, NINTENDO, http://www.nintendo.com/corp/history.jsp (last visited Nov. 15, 2013).

17. *Our Business*, SONY, http://www.sony.com/SCA/who-we-are/our-businesses.shtml#games (last visited Nov. 15, 2013).

18. Kyle Orland, *Game Publishers. Huh? Good God, Y'all, What Are They Good for?*, ARSTECHNICA (Feb. 9, 2012), http://arstechnica.com/gaming/2012/02/game-publishers-huh-good-god-yall-what-are-they-good-for-absolutely-nothing/.

19. Referred to as "AAA" or "Triple-A" titles, invoking the idea of an AAA bond rating as a "sure bet" for investors.

copies.[20] Often, publishers will commission works from either external videogame developers or in-house developers (sometimes called studios) to produce a game. Ownership of the intellectual property rights associated with the game depends on arrangements between the developers and the publishers.[21] Such arrangements are often determined by assignment or work-for-hire agreements.[22]

An independent game developer, or "indie" game developer, is a developer who self-publishes his or her own product.[23] The term is loosely defined and usually refers to smaller developers that self-fund their projects. In recent years, there has been a surge of activity from indie game developers due to the popularity of mobile devices, accessibility of mobile device markets, and improvements in online marketing.[24] Indie developers have found novel ways to inform the public about their products online, allowing them to save on the marketing costs associated with traditional publishers.[25] Unfortunately, this also means indie developers often lack legal support since publishers are usually the ones aggressively defending the intellectual property rights of developers.[26]

A videogame clone refers to a game, or game series, that is inspired by, and heavily similar to, another existing videogame title.[27] The term 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.[28] 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.[29] Cloning is not a legal term; however, courts appear to understand and recognize the concept.[30]

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20. Shane Richmond, *Call of Duty: Modern Warfare 3 Breaks Sales Records*, TELEGRAPH (Nov. 11, 2011), http://www.telegraph.co.uk/technology/video-games/video-game-news/8884726/Call-of-Duty-Modern-Warfare-3-breaks-sales-records.html.

21. Tom Sloper, *Contracts in the Game Biz: Legal Stuff, Part Two*, SLPERAMA PRODUCTIONS, http://www.sloperama.com/advice/article58.htm (last updated Jan. 2013).

22. *Id.*

23. *Independent Video Game Developer*, WIKIPEDIA, http://en.wikipedia.org/wiki/Independent_video_game_development (last visited Nov. 15, 2013).

24. *The Evolution of Mobile Games*, ENTERTAINMENT SOFTWARE ASSOCIATION, http://www.theesa.com/games-improving-what-matters/mobile-games.asp (last visited Oct. 3, 2013).

25. Paul Taylor, *Building Buzz for Indie Games*, GAMASUTRA (Aug. 26, 2009), http://www.gamasutra.com/view/feature/132506/building_buzz_for_indie_games.php.

26. Shaun Spalding, *Starting an Indie Studio? This is Your Crash Course on Video Game Law*, THE PENNY ARCADE REPORT (Dec. 11, 2012), http://www.penny-arcade.com/report/article/top-five-legal-best-practices-for-indie-game-developers-im-sure-it-should-h/all.

27. Chen, *supra* note 9.

28. *See Spiritual Successor*, WIKIPEDIA, http://en.wikipedia.org/wiki/Spiritual_successor (last visited Nov. 15, 2013).

29. Jamin Warren, *Attack of the Clone Attackers*, KILL SCREEN (Feb. 2, 2012), http://killscreendaily.com/articles/attack-clone-attackers/.

30. Tetris Holding, LLC v. Xio Interactive, Inc., 863 F. Supp. 2d 394, 397 (D.N.J. 2012) ("Indeed, 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*.").

Game mechanics refers to the system of rules that are integral to the process of playing a particular videogame.[31] Game mechanics range in complexity from simple rules, like those of Checkers[32] or Go,[33] to complex calculations that require modern computing. Complex calculations, such as changing modes,[34] changing rules, or displaying visual effects, often occur without players' awareness. Generally, game mechanics receive only limited copyright protection.[35] While game mechanics are patentable, game developers tend to forgo such protection due to the high costs of obtaining a patent.[36]

B. THE ERAS OF VIDEOGAMES

Understanding different videogame eras is helpful to understanding the evolution of courts' application of copyright law to videogames. Commentators differ on how to classify different eras within the videogame industry.[37] However, distinctions are generally based on a game's available media form, and whether it contains hardware components versus purely software. For example, the earliest videogames were either arcade games[38] or programs running on university mainframe computers accessible via connected terminals.[39] Conversely, modern videogames are primarily based on software, designed to run on standard personal computer systems or mobile phone devices. The Early Era, the Console Era, and the Multiplatform Modern Era are three distinct videogame time periods relevant to the application of videogame copyright law.

1. The Early Era

The earliest era ("Early Era"), covers the time from videogame inception to the period historians call the "golden age of video arcade games."[40] During the Early Era, videogames transitioned from

31. *See* Bruce E. Boyden, *Games and Other Uncopyrightable Systems*, 18 GEO. MASON L. REV. 439 (2011) (providing an in-depth analysis of the legality of traditional games).

32. *Checkers*, WIKIPEDIA, http://simple.wikipedia.org/wiki/Checkers (last visited Nov. 15, 2013).

33. *Go (game)*, WIKIPEDIA, http://en.wikipedia.org/wiki/Go_(game) (last visited Nov. 15, 2013).

34. A mode is a distinct state in a user interface where the same user input produces different results. An example would be pressing the shift key on a computer keyboard to produce capital letters.

35. *See* Boyden, *supra* note 31, at 444.

36. Steve Chang & Ross Dannenberg, *It's Just a Game, Right? Top Mythconceptions on Patent Protection of Video Games*, GAMASUTRA (May 31, 2005), http://www.gamasutra.com/view/feature/2315/its_just_a_game_right_top_.php.

37. *Compare* Eric Swain, *The Generations, Ages and Eras of Video Games*, THE GAME CRITIQUE (Feb. 13, 2009), http://www.thegamecritique.com/recent-posts/the-generations-ages-and-eras-of-video-games/160/, *with History of Video Games*, PRINCETON, http://www.princeton.edu/~achaney/tmve/wiki100k/docs/History_of_video_games.html (last visited Oct. 3, 2013).

38. Arcade games are products of both specialized hardware and software.

39. See Steven Kent, *The Ultimate History of Video Games* (2011), for a more in-depth review of the early history of videogame technology.

40. Ted Stahl, *Chronology of the History of Video Games*, THE HISTORY OF COMPUTING PROJECT, http://www.thocp.net/software/games/golden_age.htm (last updated Mar. 15, 2013).

experimental side-projects of university researchers to marketable products.[41] The products created include numerous home console systems and arcade machines.[42] The Early Era also felt the "video game crash of 1977."[43] In the late 1970s, the market was flooded with *Pong*[44] clones, causing many companies to fall out of the videogame console industry.[45]

The end of the Early Era, running from 1977 through the mid-1980s, covers the golden age of video arcade games. During this period, courts first acknowledged that videogames could be copyrightable subject matter while tackling fundamental copyright questions.[46] The courts grappled with how to classify videogames (ultimately settling on audiovisual works and software), how to find fixation in interactive and changing displays, and what parts of the games were protectable.[47]

2. The Console Era

The second era ("Console Era") covers the late 1980s until the early 2000s. During this era, radical improvements in the hardware of home videogame consoles sparked a drop in popularity of traditional arcade machines.[48] Despite the expansion of the gaming industry during this period, there was sparse litigation focusing on game cloning or the idea-expression dichotomy.[49]

3. The Multiplatform Modern Era

The third era ("Multiplatform Modern Era") covers the early 2000s until the present. The videogame market during this period is noted for games that can be played on multiple platforms such as home consoles, personal computers, and mobile devices.[50] Particularly, mobile devices and website-based videogames emerged as new sources for novel creativity. Legal issues in this era include: problems relating to the substantial similarity of videogame clones, disagreements in ownership of user-created derivatives constructed using in-game tools, the legality of in-game digital marketplaces, player-developed economies, and disputes over the application of the First Amendment to videogame content.[51]

Changes in technology and the restructure of the gaming industry

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41. *Id.*

42. *Id.*

43. Spydersvenom, *Generation Gap Pt. 1*, GAMING HISTORY 101 (Oct. 20, 2011), http://gaminghistory101.com/2011/10/20/gengap1/.

44. *Atari Home Pong/Clones (as of 1975)*, PONG.MYTHOS, http://www.pong-mythos.net/index.php?lg=en&main=Atari_Home_Pong&site=01:01:04 (last visited Nov. 15, 2013)

45. BASTIAAN VAN OMMEN, PLANNING THE RIGHT GAME: COMPETITIVE DYNAMICS IN THE VIDEO GAME CONSOLE INDUSTRY 12 (2007), *available at* http://dare.uva.nl/document/95631.

46. *See infra* Part III (describing the earliest videogame cases).

47. *See id.*

48. *See infra* Part III.B–D.

49. *See id.*

50. Brett Molina, *Nielsen: Cross-Platform Gaming on the Rise*, USA TODAY (Mar. 9, 2012), http://content.usatoday.com/communities/gamehunters/post/2012/03/nielsen-cross-platform-gaming-on-the-rise/1.

51. Jordan & Wilkinson, *supra* note 11, at 271.

guided the development of videogame copyright law through the three eras. The Early Era's introduction of videogames forced the law to classify games as protectable subject matter. The Console Era was relatively stable, with no significant changes to gaming technology or the law. During the Multiplatform Modern Era, the law adapted to the new Internet economy and the rise of handheld computers.

II. THE LAW AND WHAT IS PROTECTABLE

Game rules are not copyrightable.[52] One cannot obtain a copyright in poker or chess because the game concepts fall outside of the artistic, literary, or musical expression copyright law protects.[53] However, certain expressive elements, such the design on playing cards or the characters of a board game, can be creative enough to warrant protection.[54] For example, the rules of chess are strictly ideas, which fall outside the realm of copyright protection, but the sculpture of a chess piece can include sufficient artistic creativity independent from the chess piece's role within the game to obtain protection.[55] The distinction between expressive and non-expressive elements is the primary area of confusion for any creative medium covered under copyrights.

Videogames can be copyrighted.[56] While the principle holds that games are not copyrightable, videogames are considered more innovative than traditional games.[57] Similar to the protectability of the artistic design of a game board, videogames have numerous elements that can be considered protectable expression. Furthermore, a videogame taken as a whole can receive copyright protection—the overall expression of the work is considered separate from the underlying game mechanics.[58]

A. COPYRIGHTABLE SUBJECT MATTER

The Copyright Act identifies specific categories of works that can be protected by copyright.[59] Videogames can fall under three of these

52. *FL-108 Copyright Registration of Games*, U.S. COPYRIGHT OFFICE, http://www.copyright.gov/fls/fl108.html (last updated Sept. 6, 2012).

53. See Boyden, *supra* note 31, for an in-depth analysis on why games were not historically held as copyrightable subject matter.

54. NIMMER ON COPYRIGHT, *supra* note 12, § 2.18 [H][3][a] ("It is said that games are not copyrightable, but this general proposition is subject to qualification.").

55. In other words, the design of a chess piece involves artistic creativity independent from the rules governing how the piece moves on the board.

56. Boyden, *supra* note 31, at 443 n.28 ("[C]ourts concluded that, in addition to protection for their software code, videogames could be protected as audiovisual works, just like cartoons or films.").

57. NIMMER ON COPYRIGHT, *supra* note 12, § 2.18 [H][3][a] ("Second, and more fundamentally, the blanket rule of exclusion for games must be rethought as much, so much else in the copyright arena insofar as it applies to works of technology heralded by the computer revolution. The subsections that follow confront that issue in two parts: first, as to video games that developed at the vanguard, and second more generally as to more sophisticated computer games.").

58. NIMMER ON COPYRIGHT, *supra* note 12, § 2.18 [H][3][a].

59. 17 U.S.C. § 101 (2006).

categories: (1) audiovisual works,[60] (2) computer programs,[61] and (3) derivative works.[62]

1. Videogames as Audiovisual Works

An audiovisual work is a "work that consists of a series of related images that are intended to be shown by the use of a machine or device, together with accompanying sounds, if any."[63] Historically, this classification applied to motion pictures, animated cartoons, television shows, and other media functioning primarily as a moving visual experience.[64] For videogames, this protection applies to the audiovisual display users experience while interacting with the game. For example, the images that appear on the screen and the accompanying audio. The audiovisuals are protectable works distinct from the software and hardware producing the effects.[65] This distinction was established in early videogame copyright cases.[66] In *Stern Elecs., Inc. v. Kaufman*,[67] the court struggled to apply protections to both audiovisual display and the underlying software:

> The visual and aural features of the audiovisual display are plainly original variations sufficient to render the display copyrightable even though the underlying written program has an independent existence and is itself eligible for copyright.... Nor is copyright defeated because the audiovisual work and the computer program are both embodied in the same components of the game. The same thing occurs when an audiotape embodies both a musical composition and a sound recording.[68]

Thus, both the underlying software and the audiovisual presentation can receive copyright protection.

Another issue arising during the Early Era of videogame copyright law concerned fixation.[69] To receive copyright protection, a work must be "fixed in any tangible medium of expression, now known or later

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60. *Id.* ("'Audiovisual works' are 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.").

61. *Id.* ("A 'computer program' is a set of statements or instructions to be used directly or indirectly in a computer in order to bring about a certain result.").

62. *Id.* ("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.").

63. *Help: Type of Work*, U.S. COPYRIGHT OFFICE, http://www.copyright.gov/eco/help-type.html (last revised July 26, 2011).

64. *See* NIMMER ON COPYRIGHT, *supra* note 12, § 2.09.

65. *Id.* § 2.18 [H][3][b] ("If the similarity as between two video games lies not just in that which is dictated by the plaintiff's computer program, but also in certain audio and visual elements that were injected in the plaintiff's audiovisual derivative work, then infringement should be found if such elements were copied, even if the underlying program was not copied.").

66. Boyden, *supra* note 31, at 443 n.28.

67. 669 F.2d 852 (2d Cir. 1982).

68. *Id.* at 856.

69. Thomas M.S. Hemnes, *The Adaptation of Copyright Laws to Video Games*, 131 U. PA. L. REV. 171, 180 (1982); Henry M. Juti, *Copyrights and Intellectual Property—Visual and Aural Aspects of Videogames Are Properly Copyrightable Material.* Stern Electronics, Inc. v. Kaufman, *669 F.2d 852 (2d Cir. 1982)*, 87 DICK. L. REV. 845, 850 (1983).

developed, from which [it] can be perceived, reproduced, or otherwise communicated, either directly or with the aid of a machine or device."[70] Applied to traditional audiovisual works, this requires the visual experience to be capable of recordation in a tangible medium that allows it to be replayed. The problem in applying this requirement to videogames is that the image depicted on the screen is dynamic. Each time a game is played, the audiovisual work could be unique. Instead of a fixed repeating pattern, a player's interaction with the game creates a new image. Thus, the audiovisuals are transitory and unfixed.[71]

Courts have resolved this issue by focusing on the manner in which videogames are stored, such as on a printed circuit board or in the software etched into a compact disk.[72] Courts have also found fixation in static elements of a videogame, such as a player's character "ship" in the arcade game *Scramble*.[73] The ship is a constant element within *Scramble*, "capable of being seen and heard each time" the game is played.[74] Another means of securing fixation is through including an "attract mode." An attract mode is where a game runs a pre-programmed demonstration of how it is meant to be played. Since the demonstration pattern is consistent, courts have considered the pattern fixed.[75] Despite the transitory nature of individual game play, fixation can nevertheless be established through any of the above means.[76]

2. Videogames as Computer Programs

After recognizing software as copyrightable subject matter, a major concern has been separating the function of the software from the actual computer code.[77] In other words, the problem is distinguishing the idea of the software from its expression.[78] Software copyright applies to the audio and visual representations on a computer or television screen as well as the interaction between the software and hardware producing the audiovisual

70. 17 U.S.C. § 102(a) (2006).

71. NIMMER ON COPYRIGHT, *supra* note 12, § 2.18 [H][3][b] ("Another issue posed is somewhat more difficult, given the nature of video games. A 'work of authorship' is not 'fixed' in a tangible medium of expression, and hence eligible for copyright, unless it is 'sufficiently permanent or stable to permit it to be perceived, reproduced, or otherwise communicated for a period of more than transitory duration.' An audiovisual work becomes a game only if it is possible for the players to alter the movement of the objects contained in the display. Such altered movements are of no more than transitory duration. Moreover, the players, rather than the putative owners of the audiovisual work, are the 'authors' of such altered movements.").

72. *See* Atari, Inc. v. Amusement World, Inc., 547 F. Supp. 222, 226 (D. Md. 1981).

73. *Stern Elecs.*, 669 F.2d at 857.

74. *Id.* ("No doubt the entire sequence of all the sights and sounds of the game are different each time the game is played, depending upon the route and speed the player selects for his spaceship and the timing and accuracy of his release of his craft's bombs and lasers. Nevertheless, many aspects of the sights and the sequence of their appearance remain constant during each play of the game. These include the appearance (shape, color, and size) of the player's spaceship, the enemy craft, the ground missile bases and fuel depots, and the terrain over which (and beneath which) the player's ship flies, as well as the sequence in which the missile bases, fuel depots, and terrain appears.").

75. *See* Midway Mfg. Co. v. Bandai-America, Inc., 546 F. Supp. 125 (D.N.J 1982).

76. 1 NIMMER ON COPYRIGHT, *supra* note 12, at § 2.18 [H][3][b].

77. Computer Assocs. Int'l, Inc. v. Atari, Inc., 982 F.2d 693, 714 (2d Cir. 1992).

78. *See id.*

presentation. Videogame software copyrights protect the actual software code of a game and can cover instances where someone copies or otherwise misappropriates a portion of the protected code.[79]

3. Videogames as Protected Derivative Works

A third method for securing copyright protection for videogames is through protection as a "derivative work."[80] A videogame based on an existing copyrighted work, such as a book, visual novel, or film, can be protected as a derivative work of the original.[81] Thus, if a game developer wants to produce a game based on existing media, he or she may first need to secure permission from the original owner.

B. PROTECTABLE ELEMENTS OF VIDEOGAMES

Individual elements of a videogame can be protected by copyright. Courts have assigned protection to the "look and feel" of a game's interface, the mechanics of a game, and the art assets of a game, including images, sounds, and characters.[82]

1. Look and Feel

An element of a videogame that can receive copyright protection is the overall look and feel of the interface.[83] Also known as a graphical user interface ("GUI"), the look and feel of software refers to the user-software interaction and is a key factor for the success of any software product.[84] Software users desire intuitive, informative, and easy-to-use user interfaces.[85] The manner in which a player interacts with a videogame is fundamental to the success of a game. Historically, in software litigation, disputes arose between those favoring strong look and feel protections and

79. Jordan & Wilkinson, *supra* note 11, at 281–82 ("In what seems to be a textbook example of 'be careful what you disclose,' SocialApps has sued Zynga claiming Zynga's hugely successful FarmVille was actually stolen from SocialApps during a due-diligence exchange between the two companies. According to the complaint, as early as 2008, SocialApps developed myFarm, a social-networking game in which players create and manage their own virtual farms through a system of 'myFarm Credits.' The game was introduced onto Facebook around November 2008. In May 2009, Zynga approached SocialApps about acquiring the rights and source code to myFarm. After signing a confidentiality agreement, SocialApps gave Zynga the source code. Shortly thereafter, Zynga broke off communications, and one month later released the hugely successful Farmville. SocialApps claims Zynga stole the source code under the 'ruse of "due diligence."' SocialApps is suing for copyright infringement and breach of a written contract.").

80. *Derivative Works*, SOFTWARE PLURALISM, http://www.law.washington.edu/lta/swp/law/derivative.html (last visited Nov. 1, 2013).

81. 1 MELVILLE B. NIMMER AND DAVID NIMMER, NIMMER ON COPYRIGHT, § 2.18[H][3][b] (Matthew Bender, Rev. Ed.).

82. *See generally id.*

83. Tetris Holding, LLC v. Xio Interactive, Inc., 863 F. Supp. 2d 394, 413–14 (D.N.J. 2012) ("Neither feature is part of the idea of Tetris or its game play. They are both visualizations designed as expressions, creative choices made as part of the look and feel of the game.").

84. Alan S. Middleton, *A Thousand Clones: The Scope of Copyright Protection in the "Look and Feel" of Computer Programs*, 63 WASH. L. REV. 195, 195 (1988).

85. *See* Desi Quintans, *Game UI by Example: A Crash Course in the Good and the Bad*, GAMEDEV TUTUSPLUS (Jan. 22, 2013), http://gamedev.tutsplus.com/tutorials/aesthetics/game-ui-by-example-a-crash-course-in-the-good-and-bad/.

those preferring standardization of interfaces.[86] Ultimately, this led to the creation of many cloned interfaces designed for business, word processing, and operating systems.[87]

Two decisions defined the rules regarding the look and feel of software.[88] In *Lotus Dev. Corp. v. Borland Int'l, Inc.*,[89] the First Circuit determined that the menus and command hierarchy in the Lotus spreadsheet editing software (Lotus 1-2-3) were non-copyrightable subject matter.[90] The court considered the interface a "method of operation," which, as stated in § 102(b) of the Copyright Act, is not protectable.[91] The court applied the method of operation restriction broadly, finding that it covered anything that controlled the program, including the appearance of the menu, the function of the buttons, and even spoken control words.[92] The court acknowledged that a user interface could include protectable expressions, but that the expressive features could not overcome the restrictive language of § 102(b).[93] The *Lotus* court held that user interfaces are methods of operation and are therefore not protected by copyright, despite any expression of ideas present.[94]

The court's rule in *Lotus* is difficult to apply to videogames. Drawing a line between the elements of a user interface that serve as a method of operation and those that do not is extremely challenging. Indeed, a user interface that serves only to inform users of some information, such as their current game score, could potentially provide information prompting a user response. The Supreme Court affirmed the *Lotus* court's opinion *per curiam*, without gaining a five-vote majority for any issue in the case.[95]

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86. Middleton, *supra* note 84.

87. *Id.* at 196.

88. *Id.*

89. 49 F.3d 807 (1st Cir. 1995), *aff'd*, 516 U.S. 233 (1996) (per curiam).

90. *Id.* at 815 ("We hold that the Lotus menu command hierarchy is an uncopyrightable 'method of operation.' The Lotus menu command hierarchy provides the means by which users control and operate Lotus 1-2-3. If users wish to copy material, for example, they use the 'Copy' command. If users wish to print material, they use the 'Print' command. Users must use the command terms to tell the computer what to do. Without the menu command hierarchy, users would not be able to access and control, or indeed make use of, Lotus 1-2-3's functional capabilities.").

91. *Id.*

92. *Id.* at 816 ("Accepting the district court's finding that the Lotus developers made some expressive choices in choosing and arranging the Lotus command terms, we nonetheless hold that that expression is not copyrightable because it is part of Lotus 1-2-3's 'method of operation.' We do not think that 'methods of operation' are limited to abstractions; rather, they are the means by which a user operates something. If specific words are essential to operating something, then they are part of a 'method of operation' and, as such, are unprotectable. This is so whether they must be highlighted, typed in, or even spoken, as computer programs no doubt will soon be controlled by spoken words.").

93. *Id.* ("The 'expressive' choices of what to name the command terms and how to arrange them do not magically change the uncopyrightable menu command hierarchy into copyrightable subject matter.").

94. *Id.*

95. Daniel B. Burg, *Lotus v. Borland: Is Anything Left in Software to Copyright?*, 41 WAYNE L. REV. 1713, 1731 (1995) ("The Supreme Court left the law in the same confused state it found it. The Court granted certiorari in Lotus v. Borland in September 1995, heard oral arguments in January 1996, and ruled eight days later. The Court's opinion, in its entirety: 'PER CURIAM. The judgment of the United States Court of Appeals for the First Circuit is affirmed by an equally divided Court. JUSTICE STEVENS took no part in the consideration or decision of this case.' As there were not five votes for

Post-*Lotus*, at least one circuit has rejected the broad exclusion of interface protection via § 102(b).

In *Apple Computer, Inc. v. Microsoft Corp.*,[96] the Ninth Circuit took a more permissive view when applying copyright protection to user interface.[97] Microsoft, wanting to use the GUI features existing in Apple's *NewWave* software, argued that user interface should be excluded from copyright protection as a method of operation.[98] The court rejected Microsoft's position, holding that the matter required the court to analytically dissect the protectable elements from the non-protectable elements of the interface.[99] Furthermore, the court required a higher degree of similarity where the expressive options were constricted.[100] Applied to videogames, the court's holding could allow protection for the player's interaction with the game.[101]

2. The Game Mechanics

Other elements of a videogame eligible for copyright protection are the expression of game mechanics. Generally, a videogame's mechanics are not considered copyrightable subject matter since courts tend to recognize mechanics as ideas rather than expressions.[102] The distinction between a game mechanic and the protectable expression of a game mechanic is difficult to discern.[103] Whether a particular game mechanic can be protected by copyright often depends on how the court addresses the idea-expression dichotomy.[104] What constitutes a rule of the game, as opposed to an expression of that rule, fundamentally changes what is protectable.[105] For example, the way courts characterize the rules of an abstract puzzle game, like *Tetris*, defines what aspects of the game mechanics are protectable expression.[106] The idea-expression dichotomy of videogame mechanics is critical to understanding the legality of a particular videogame clone since novelty in the videogame industry comes from new

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any position, the decision is 'not entitled to precedential weight.' The software industry will therefore have to wait for another Supreme Court case to resolve the matter.").

96. 35 F.3d 1435 (9th Cir. 1994).

97. *Id.* at 1439–40.

98. *Id.*

99. *Id.* at 1443.

100. *Id.* at 1442.

101. *See* Tetris Holding, LLC v. Xio Interactive, Inc., 863 F. Supp. 2d 394, 397 (D.N.J. 2012).

102. *Id.* at 404 ("The game mechanics and the rules are not entitled to protection, but courts have found expressive elements copyrightable, including game labels, design of game boards, playing cards and graphical works.").

103. *Id.*

104. *Id.* ("This distinction then between a game's rules and its appearance is merely the application of the familiar idea-expression dichotomy as applied to the particular field of games.").

105. *Id.* at 413. (In *Tetris*, the court determined that the Tetris game board, being 20 units by 10 units, did not constitute a rule of the game: "Xio defends copying the exact size of the playing field—20 units high by 10 units wide—by saying that a rule of the game is to have a board that it [sic] higher than it is wide. Def. Motion, at 34. But having a board higher than it is wide is not the issue; Xio copied a field that was the exact same dimensions as *Tetris*. Even assuming it is a rule to have a field higher than it is wide, which the Court does not necessarily find, it is not a rule to have the playfield be exactly 20 units by 10 units.").

106. *Id.* at 397.

and unique game mechanics.

3. The Art Assets

Typically, art assets are protectable and separate from the videogame as a whole.[107] Art assets include: graphic depictions of game characters, the soundtrack of a game, background images, and the visual appearance of the interface.[108] However, these elements can have their protections narrowed if they are primarily functional or fall under other limiting doctrines.[109] In cases about videogame clones, courts examine individual art assets to determine whether two works are substantially similar. For example, similarity between two background images could be a basis for finding substantial similarity.[110]

C. UNPROTECTABLE IDEAS AND PROTECTABLE EXPRESSIONS

A consistent theme throughout all of copyright law is the law's principle purpose: Copyright law protects creative expression, not ideas.[111] This concept is referred to as the idea-expression dichotomy, and it is codified in § 102(a) and § 102(b) of the Copyright Act.[112] The distinction between idea and expression advances copyright's goal of protecting works of authorship, art, and free speech and not granting ownership rights to factual works and products of nature.[113]

Section 102(b) describes the factual subject matter unprotectable under copyright law: "In no case does copyright protection for an original work of authorship extend to any idea, procedure, process, system, method of operation, concept, principle, or discovery, regardless of the form in which it is described, explained, illustrated, or embodied in such work."[114] As applied to videogames, it would seem game mechanics and features of the interface would fall outside the scope of copyrightable subject matter. However, merely because a work involves an idea or principle does not automatically mean it will not be protected. Rather, *only the ideas themselves* are uncopyrightable, leaving other expressive elements capable of protection.[115]

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107. Capcom U.S.A., Inc. v. Data E. Corp., No. C 93-3259 WHO, 1994 WL 1751482, at *7 (N.D. Cal. Mar. 16, 1994) (citing Fabrica, Inc. v. El Dorado Corp., 697 F.2d 890, 893 (9th Cir. 1983)).

108. *See Art Assets for Game Developers*, LETSMAKEGAMES, http://letsmakegames.org/resources/art-assets-for-game-developers/ (last visited Nov. 15, 2013).

109. *Id.*

110. 1 NIMMER ON COPYRIGHT, *supra* note 12, at § 2.03[A].

111. Broderbund Software, Inc. v. Unison World, 648 F. Supp. 1127, 1131 (N.D. Cal. 1986).

112. 1 NIMMER ON COPYRIGHT, *supra* note 12 ("Although long recognized by the courts, the idea-expression dichotomy was for the first time accorded express statutory recognition in the present Copyright Act.").

113. *Id.*

114. 17 U.S.C. § 102(b) (2006).

115. 1 NIMMER ON COPYRIGHT, *supra* note 12 ("It would, then, be a misreading of Section 102(b) to interpret it to deny copyright protection to 'the expression' of a work, even if that work happens to consist of an 'idea, procedure, process, etc.' Thus, if a given 'procedure' is reduced to written form, this will constitute a protectable work of authorship, so as to preclude the unlicensed copying of 'the expression' of the procedure, even if the procedure per se constitutes an unprotectable 'idea.' Therefore,

Separating the idea from the expression is the primary challenge of the dichotomy. Section 102(a) states, "[c]opyright protection subsists . . . in original works of authorship fixed in any tangible medium of expression . . . from which they can be perceived, reproduced, or otherwise communicated, either directly or with the aid of a machine or device."[116] Together, the two sections describe a permissive situation where anything not barred by § 102(b) may be copyrightable so long as it complies with the other provisions of the Copyright Act.[117]

D. THE TESTS

Courts use various tests to draw the line between idea and expression. The tests change depending on the work's medium and often have special methods for analyzing literature, music, software, etc.[118] Specialized methods are appropriate due to differences in the forms of authorship. What is recognized as a means for separating idea from expression in music may not rationally apply to computer software or a literary work. The issue is further complicated by the concept of substantial similarity, which is necessary to prove in all nonliteral copyright infringement suits.[119]

To bring a valid copyright infringement claim, the plaintiff is required to show ownership of a valid copyright in the copied work and that the defendant copied a *substantial* amount of the work.[120] After the plaintiff satisfies these requirements, the court attempts to determine what elements of the original work are protected, comparing for similarity only those elements protected by copyright.[121] Courts differ on how to perform the similarity analysis.

Presently, there are several tests for finding substantial similarity.[122] Professor Nimmer[123] identified two basic categories of tests: comprehensive nonliteral similarity and fragmented literal similarity.[124]

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although Section 102(b) denies that copyright may 'extend to' an 'idea, procedure, process, etc.,' as contained in a given work, it does not deny copyright to a work merely because that work consists of an 'idea, procedure, process, etc.'").

116. 17 U.S.C. § 102(a) (2006) (including an enumeration of covered works, such as "literary works; musical works," and other audiovisual works.).

117. 1 NIMMER ON COPYRIGHT, *supra* note 12, § 2.03[A].

118. *Id.*

119. 4 NIMMER ON COPYRIGHT, *supra* note 12, § 13.03.

120. *Id.* § 13.01 (emphasis added).

121. *Id.* § 13.03 ("Just as copying is an essential element of copyright infringement, so substantial similarity between the plaintiff's and defendant's works is an essential element of actionable copying. 'This means that even where the fact of copying is conceded, no legal consequences will follow from that fact unless the copying is substantial.'").

122. *Id.*

123. *Melville Nimmer*, WIKIPEDIA, http://en.wikipedia.org/wiki/Melville_Nimmer (last visited Nov. 15, 2013).

124. 4 NIMMER ON COPYRIGHT, *supra* note 12, § 13.03 ("In attempting to understand, and if possible to find, some usable guidelines in determining the manner in which courts have drawn the line of substantial similarity, it is helpful to distinguish between two quite different forms of similarity. This distinction has received almost no express judicial recognition, so that it is necessary to invent our own terminology in contrasting the two such forms. These may be called, respectively, comprehensive nonliteral similarity and fragmented literal similarity.").

Comprehensive nonliteral similarity describes a situation where a work substantially copies from another copyrighted work, but uses abstract copying as opposed to literal copying.[125] This principle is intuitive when applied to literature—one that rewrites a novel, retaining character names and places but using different prose, clearly copied elements from the original work, but did not copy it word for word. The court must identify which parts of the original work are protectable as expressive elements since those elements will be compared to the allegedly infringing work for similarity.[126] Fragmented literal similarity describes situations in which specific elements are literally copied from an original work.[127] Here, the court must determine quantitatively how much copying is permissible.[128]

Courts analyze videogame clones primarily under comprehensive nonliteral similarity. Literal copying of a videogame can occur in two instances: copying the game as an audiovisual work or copying the game's underlying software code. Capturing a literal copy of software code is possible, but an author can produce the same display results using different immaterial variations in the software.[129] Thus, courts apply tests that fall within Nimmer's comprehensive nonliteral similarity category when treating videogames as audiovisual works and also when viewing them as software.[130]

Currently, the Supreme Court has not approved any specific substantial similarity test for videogame copyright claims.[131] The circuit courts have adopted several tests that often differ according to subject matter.[132] The "ordinary observer test" was adopted and developed by the

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125. *Id.* ("The problem here under scrutiny is the situation where there is comprehensive similarity but no word-for-word or other literal similarity—what the Second Circuit terms 'inexact-copy infringement.' The mere fact that the defendant has paraphrased rather than literally copied will not preclude a finding of substantial similarity. As Judge Learned Hand noted in words often quoted, copyright 'cannot be limited literally to the text, else a plagiarist would escape by immaterial variations.'").

126. *Id.* ("If copyright protection is not limited to literal reproduction but does not prevent the borrowing of ideas, what sort of similarity short of the verbatim will constitute substantial similarity? The courts have answered this inquiry with the vague formula that if the defendant's work copies not merely the idea, but 'the expression of the idea' contained in plaintiff's work, then the two works are substantially similar and infringement may be found. The House Report expressly endorses and perpetuates, under the current Act, this 'idea-expression' dichotomy, so that it is now statutorily codified. This, however, is but a reformulation not a solution of the problem.").

127. *Id.* ("But suppose the similarity, although literal, is not comprehensive—that is, the fundamental substance, or skeleton or overall scheme, of the plaintiff's work has not been copied; no more than a line, or a paragraph, or a page or chapter of the copyrighted work has been appropriated. At what point does such fragmented similarity become substantial so as to constitute the borrowing an infringement?").

128. This subject has developed its own body of case law, attempting to determine how much sampling is too much, and how much is fair use.

129. *See* Nichols v. Universal Pictures Corp., 45 F.2d 119, 121 (2d Cir. 1930) ("It is of course essential to any protection of literary property, whether at common-law or under the statute, that the right cannot be limited literally to the text, else a plagiarist would escape by immaterial variations.").

130. *See* 1 NIMMER ON COPYRIGHT, *supra* note 12, § 2.18 [H][3].

131. ROBERT C. OSTERBERG & ERIC C. OSTERBERG, SUBSTANTIAL SIMILARITY IN COPYRIGHT LAW § 3.1 (2013).

132. J. Dianne Brinson, *Copyrighted Software: Separating the Protected Expression from Unprotected Ideas, a Starting Point*, 29 B.C. L. REV. 803, 812–13 (1988).

Second Circuit and is also used in the First, Third, Fifth, and Seventh Circuits.[133] The "total concept and feel test," also known as the "extrinsic/intrinsic test," emerged from the Ninth Circuit and is additionally used in the Fourth and Eighth Circuits.[134] The Ninth Circuit applies an "abstraction-filtration-comparison test" for software substantial similarity, which is also used in the Tenth, Sixth, and D.C. Circuits.[135] Substantial similarity suits for videogame infringement are uncommon, but in the few existing cases, the circuit courts have applied the various tests differently.

1. The Ordinary Observer Test

The ordinary observer test uses a reasonable person standard, asking whether an ordinary person would look at the two works and conclude that the alleged infringer misappropriated elements of the original copyrighted work.[136] At the outset, a court using the ordinary observer test determines whether the defendant had access to the original work and therefore had the opportunity to misappropriate the work's elements.[137] After establishing access, the court applies the observer test. Typically, neither analytical dissection of the work nor the use of expert witnesses are necessary; the court instead makes an assessment based on an ordinary observer's spontaneous reaction to the work.[138] Some courts apply a higher standard by seeking to exclude the work's unprotectable elements from the ordinary observer's consideration.[139] In such a case, the court only looks for similarity in the leftover protectable elements.[140] In cases of videogame copyright, courts have applied the higher standard and identified unprotectable elements of the game through the merger, *scènes à faire*, and functionality doctrines.[141]

2. The Total Concept and Feel Test

The Ninth Circuit's total concept and feel test uses the special considerations of the ordinary observer test, but adds a two-step analysis

133. OSTERBERG & OSTERBERG, *supra* note 131.

134. *Id.* § 3.2.

135. *Id.* § 3.3.

136. *Id.* § 3.1.1[A] ("The fact finder decides whether an average lay observer would recognize the alleged copy as having been appropriated from the copyrighted work. In other words, would the ordinary observer, unless he set out to detect the disparities, be disposed to overlook those disparities and regard the aesthetic appeal of the two works as the same?").

137. 4 NIMMER ON COPYRIGHT, *supra* note 12, § 13.02.

138. *Id.* § 13.03.

139. Atari, Inc. v. N. Am. Philips Consumer Elecs. Corp., 672 F.2d 607, 614 (7th Cir. 1982) ("While dissection is generally disfavored, the ordinary observer test, in application, must take into account that the copyright laws preclude appropriation of only those elements of the work that are protected by the copyright.").

140. *See id.*.

141. *Id.* at 617 ("Plaintiffs' audiovisual work is primarily an unprotectable game, but unlike the bee pin, to at least a limited extent the particular form in which it is expressed (shapes, sizes, colors, sequences, arrangements, and sounds) provides something 'new or additional over the idea.' . . . Certain expressive matter in the PAC-MAN work, however, should be treated as *scènes à faire* and receive protection only from virtually identical copying. The maze and scoring table are standard game devices, and the tunnel exits are nothing more than the commonly used 'wrap around' concept adapted to a maze-chase game."). For additional discussion of these doctrines, *see infra* Part II.C.4.

examining both extrinsic and intrinsic factors.[142] During the extrinsic analysis, courts dissect the underlying concepts of the work to identify the specific features to compare for similarity.[143] This process considers features exclusive to the medium at issue and varies depending on the nature of the work. When reviewing a painting, for example, the court would look at "the type of artwork involved, the materials used, the subject matter and the setting for the subject."[144] During the extrinsic analysis, the court also identifies elements that would be constrained, and excludes them using limiting doctrines and other principles of idea-expression dichotomy.[145] Contrary to the ordinary observer test, the total concept and feel test usually considers expert testimony. If extrinsic review reveals objective similarities between the individual elements of the works, the court moves on to the intrinsic test. The intrinsic test asks whether an ordinary observer would find a similar total concept and feel between the works.[146] Essentially, the total concept and feel test is the same as the ordinary observer test, except the court applies an additional two-step threshold analysis to determine any objective similarities.[147]

3. The Abstraction-Filtration-Comparison Test

The "abstraction-filtration-comparison test," adopted by the Ninth Circuit for analyzing the substantial similarity of software, is a three-prong version of the previously described tests.[148] The first step requires analytical abstraction of the work's concepts into more general ideas, separating out the unprotected ideas.[149] This is done through doctrines such as *scènes à faire* or merger.[150] The second step filters out the identified unprotectable elements from the identified protectable elements.[151] The remaining material is then compared for similarities.[152] The test differs from the ordinary observer test and the total concept and feel test because it compares only the remaining protectable material for similarity instead of

142. Sid & Marty Krofft Television Prods., Inc. v. McDonald's Corp., 562 F.2d 1157 (9th Cir. 1977).

143. OSTERBERG & OSTERBERG, *supra* note 131, § 3:2.1(a).

144. *Sid & Marty Krofft Television Prods.*, 562 F.2d at 1164.

145. *See infra* Part II.C.4; 4 NIMMER ON COPYRIGHT, *supra* note 12, § 13.03 [B][2][a].

146. Data E. USA, Inc. v. Epyx, Inc., 862 F.2d 204, 208 (9th Cir. 1988) ("Once an idea is found to be similar or identical, as in this case, the second or intrinsic step is applied to determine whether similarity of the expression of the idea occurs. This exists when the 'total concept and feel of the works' is substantially similar. Analytic dissection of the dissimilarities as opposed to the similarities is not appropriate under this test because it distracts a reasonable observer from a comparison of the total concept and feel of the works.") (citations omitted).

147. *See Sid & Marty Krofft Television Prods.*, 562 F.2d at 1164.

148. Martin T. Hillery, *The Second Circuit's Attempt to Define Copyright Protection for Computer Software: Is the Abstraction-Filtration-Comparison Test a Workable Solution?*, 66 ST. JOHN'S L. REV. 1127, 1140 (1993).

149. *See* Computer Assocs. Int'l, Inc. v. Altai, Inc., 982 F.2d 693, 706 (2d Cir. 1992).

150. *Id.*

151. *Id.* at 707.

152. Evan Finkel, *Copyright Protection for Computer Software in the Nineties*, 7 SANTA CLARA COMPUTER & HIGH TECH. L.J. 201, 223 (1991).

the work as a whole.[153] While the Ninth Circuit applies this test strictly to software cases, other jurisdictions apply it to situations where such an analytical-filtration process is uniquely helpful, such as videogame similarity cases.

The three tests reveal a spectrum of analyses that moves from general review of copyrighted works to more specific review. The ordinary observer test simply inquires: "would the audience think this is a copy?" The latter tests first decompile the original work to see if a similarity comparison is appropriate, then provide guidelines for comparison.

4. The Limiting Doctrines

The merger, functionality, and *scènes à faire* limiting doctrines are the primary means by which courts attempt to demarcate the protectable expression from the unprotectable ideas. The merger doctrine applies when there are minimal ways to express an idea.[154] Idea and expression are then said to merge, and the bare minimum of protection is given to such expression.[155] Without this doctrine, authors could monopolize the use of an underlying idea since the idea would be impossible to express without infringing upon the original author's work. Therefore, when the range of expression available is limited, courts require literal copying or "virtual identity" before finding infringement.[156]

For videogames, courts have applied the merger doctrine not only to ideas the game expresses, but also to technical limitations of the medium.[157] In *Herbert Rosenthal Jewelry Corp. v. Kalpakian*,[158] the court used the merger doctrine to limit the range of protectable expression in a piece of jewelry.[159] The plaintiff charged defendants with infringing on its copyright of a bee-shaped pin encrusted with jewels.[160] Essentially, the court found that there were only so many possible ways to express a bee pin such that the guiding consideration must be "the preservation of the balance between competition and protection."[161] This logic has been applied to videogames, where limitations in the capabilities of videogame hardware limit the means for expressing ideas.[162]

The *scènes à faire* doctrine operates similar to the merger doctrine. *Scènes à faire* refers to the elements that are required for a work to be

153. *Id.*

154. 4 NIMMER ON COPYRIGHT, *supra* note 12, § 13.03 [B][3].

155. *See id.*

156. *Apple Computer, Inc. v. Microsoft Corp.*, 35 F.3d 1435, 1439 (9th Cir. 1994) ("When the range of protectable and unauthorized expression is narrow, the appropriate standard for illicit copying is virtual identity. For these reasons, the GUIs in Windows 2.03, 3.0 and NewWave cannot be compared for substantial similarity with the Macintosh interface as a whole. Instead, as the district court held, the works must be compared for virtual identity.").

157. Atari, Inc. v. Amusement World, Inc., 547 F. Supp. 222, 229 (D. Md. 1981).

158. 446 F.2d 738 (9th Cir. 1971).

159. *Id.* at 739.

160. *Id.*

161. *Id.* at 742.

162. *See Atari*, 547 F. Supp. at 229.

classified in a particular artistic genre.[163] For example, western films typically take place somewhere in the western region of the United States or Mexico and contain traditional elements like cowboys, saloons, and gun-fighting. Such traditional elements would not be protected according to the *scènes à faire* doctrine since they are essential to the western film genre. The principle behind *scènes à faire* is the same as the merger doctrine: granting copyright over defining elements in a genre would prohibit entry by other authors.[164] *Scènes à faire* applies to the subject matter of a videogame, as well as to its style and genre.[165] For example, a game depicting a karate tournament needs to include elements of fighting as well as elements of a traditional karate tournament. Therefore, the elements critical to basic genres will only have a limited expressive range, thus receiving limited copyright protection.[166]

III. THE EARLIER CASES

A. THE *ASTEROIDS* CASE

In *Atari, Inc. v. Amusement World, Inc.*,[167] Atari brought an infringement claim against Amusement World for creating *Meteors*, a clone of Atari's arcade game *Asteroids*.[168] Amusement World challenged the copyright of Atari's *Asteroids* game, arguing that the only way *Asteroids* could receive copyright protection was if it was considered a software work.[169] Amusement World argued that Atari needed to submit the circuit board schematics of the game in order to be afforded any copyright protection.[170] The court rejected Amusement World's argument, concluding that a videogame could be protected as an audiovisual work.[171] Finding the definition of "motion pictures and other audiovisual works" sufficiently descriptive of *Asteroids*, the court concluded that the "game clearly fits the Act's definitions of copyrightable material."[172]

In reaching its conclusion, the court relied on two district court rulings, *Stern Elecs., Inc. v. Kaufman*[173] and *Midway Mfg. Co. v. Dirkschneider*.[174] Both rulings concluded that a videogame's presentation is an audiovisual work and that the imprintion of software in a circuit board

163. *See* 4 NIMMER ON COPYRIGHT, *supra* note 12, § 13.03 [B][4].

164. *See id.*

165. *See* Data E. USA, Inc. v. Epyx, Inc., 862 F.2d 204, 209 (9th Cir. 1988).

166. *See id.*

167. 547 F. Supp. 222 (D. Md. 1981).

168. *Id.*

169. *Id.* at 226.

170. *Id.* ("Defendant contends that plaintiff has not properly copyrighted the 'Asteroids' game, arguing that the original work of authorship is the computer program, as embodied in the printed circuit board.").

171. *Id.* ("The Act includes among the types of works of authorship that may be copyrighted 'motion pictures and other audiovisual works.' 17 U.S.C. s 102(a)(6).").

172. *Id.*

173. 523 F. Supp. 635 (E.D.N.Y. 1981).

174. 543 F. Supp. 466 (D. Neb. 1981).

meets copyright's fixation requirement.[175]

Amusement World also argued the two games lacked similarity.[176] The court proceeded to describe the *Asteroids* game as: "a video game in which the player commands a spaceship through a barrage of space rocks and enemy spaceships."[177] The court then identified the similarities between *Asteroids* and *Meteors* and found the games "basically the same," enumerating twenty-two similarities and nine differences between the designs.[178] One design similarity was, "[w]hen hit, a large rock splits into two medium rocks, a medium rock splits into two small ones, and a small rock disappears."[179] A dissimilarity was that *Meteors* was in color, while *Asteroids* was in simple black and white.[180] The court then revisited *Herbert Rosenthal*,[181] which described the merger doctrine, and applied the doctrine to *Asteroids*. Through analogy, the court determined that a game about shooting asteroids was more general than the idea of a bee pin, such that only the "arbitrary design features" of *Asteroids* could be protected.[182] The court took a limited view of what constituted arbitrary design features, limiting them to: "the symbols that appear on the display screen, the ways in which those symbols move around the screen, and the sounds emanating from the game cabinet."[183] The court also mentioned the *scènes à faire* doctrine, suggesting that some forms of expression must be included in order to invoke a particular idea.[184]

After identifying the protectable aspects of the game, the court applied the ordinary observer test to the remaining elements.[185] The court

175. *Atari*, 547 F. Supp. at 226.

176. *Id.* at 227.

177. *Id.* at 224.

178. *Id.* at 224–25 ("The principle of the two games is basically the same. The player commands a spaceship, represented by a small symbol that appears in the center of the screen. During the course of the game, symbols representing various sized rocks drift across the screen, and, at certain intervals, symbols representing enemy spaceships enter and move around the screen and attempt to shoot the player's spaceship. Four control buttons allow the player to rotate his ship clockwise or counterclockwise, to move the ship forward, and to fire a weapon. A variety of appropriate sounds accompany the firing of weapons and the destruction of rocks and spaceships.").

179. *Id.* at 224.

180. *Id.* at 225.

181. 446 F.2d 738, 741 (9th Cir. 1971).

182. *Atari*, 547 F. Supp. at 227 ("The critical difference in this case is that the idea of a video game involving asteroids is a much more general idea than the rather specific concept of a jeweled pin in the shape of a bee, and the former is capable of many forms of expression. Thus, when plaintiff copyrighted his particular expression of the game, he did not prevent others from using the idea of a game with asteroids. He prevented only the copying of the arbitrary design features that makes plaintiff's expression of this idea unique.").

183. *Id.*

184. *Id.* at 228 ("This principle must also apply in less extreme cases in which a creator's expression of an idea includes some forms of expression that are essential to the idea (i.e., forms of expression which cannot be varied without altering the idea) and some forms of expression that are not essential to the idea. In such a case, the latter forms of expression are copyrightable, but the former are not, because if the creator could copyright the essential forms of expression, then others would effectively be barred from using the underlying idea.").

185. *Id.* at 227–30. However, in footnote 2, the court describes the problem with a standard "ordinary observer" review, and acknowledges that the ordinary observer had to compare the works analytically beforehand: "[A] broad-brush observation that the two games have many similar forms of expression is not a sufficient basis on which to conclude that the games are substantially similar." *Id.* at

concluded that despite the similarities, the resemblances only pertained to unprotectable elements.[186] "[T]hese similarities are inevitable, given the requirements of the idea of a game involving a spaceship combating space rocks and given the technical demands of the medium of a video game."[187]

Additionally, the court described the technical requirements and limitations of the videogame's medium.[188] The "feels" of both games were different due to *Meteor*'s use of color and faster moving pieces.[189] This artistic difference was sufficient to avoid a finding of substantial similarity.[190] Through broadly defining the ideas of the game, finding little range in the possible means to express those ideas, and focusing on the limits of the available technology, the court concluded that *Asteroids* did not have many protectable elements.[191] However, even accounting for the narrow range of arbitrary design elements, today's ordinary observer would likely have found substantial similarity.

B. THE *PAC-MAN* CASE

In *Atari, Inc. v. N. Am. Philips Consumer Elecs. Corp.*, the Seventh Circuit reviewed a case using the ordinary observer standard, and found substantial similarities between *PAC-MAN* and the clone *K.C. Munchkin.*[192] Similar to the analysis in *Asteroids*, the Seventh Circuit identified and separated the ideas of the original game from its expression, applying both the merger and *scènes à faire* doctrines to the remaining expressive elements.[193] The Seventh Circuit defined the ideas of the game more broadly than the *Asteroids* court, concluding that the idea behind *PAC-MAN* consisted of three basic concepts: (1) the player directs the character through a maze; (2) the character eats up points while avoiding opponents; and (3) the character has an option to become empowered and eat the opponents.[194] The court used the two limiting doctrines sparingly, applying

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229 n.2.

186. *Id.* at 229–30.

187. *Id.* at 229.

188. *Id.*

189. *Id.* at 230.

190. *Id.* ("It seems clear that defendants based their game on plaintiff's copyrighted game; to put it bluntly, defendants took plaintiff's idea. However, the copyright laws do not prohibit this. Copyright protection is available only for expression of ideas, not for ideas themselves. Defendants used plaintiff's idea and those portions of plaintiff's expression that were inextricably linked to that idea. The remainder of defendants' expression is different from plaintiff's expression. Therefore, the Court finds that defendants' 'Meteors' game is not substantially similar to and is not an infringing copy of plaintiff's 'Asteroids' game.").

191. *Id.*

192. Atari, Inc. v. N. Am. Philips Consumer Elecs. Corp., 672 F.2d 607, 614–19 (7th Cir. 1982).

193. *Id.*

194. *Id.* at 617 ("PAC-MAN is a maze-chase game in which the player scores points by guiding a central figure through various passageways of a maze and at the same time avoiding collision with certain opponents or pursuit figures which move independently about the maze. Under certain conditions, the central figure may temporarily become empowered to chase and overtake the opponents, thereby scoring bonus points. The audio component and the concrete details of the visual presentation constitute the copyrightable expression of that game 'idea.'").

them only to the expressed mechanics common to many arcade games.[195] The court did, however, find substantial similarity between the game characters in *PAC-MAN* and *K.C. Munchkin*.[196] The *K.C. Munchkin* gobbler was similar enough in appearance and animation to the *PAC-MAN* gobbler that a non-discerning ordinary arcade game player could see them as similar gobblers.[197] This case is distinguishable from *Atari, Inc. v. Amusement World, Inc.* (the *Asteroids* case), where mere changes in color and shape of the game characters were enough for the court to conclude that there was dissimilarity.

C. THE *KARATE CHAMP* CASE

In the Console Era, the Ninth Circuit adjudicated substantial similarity in the case of *Data E. USA, Inc. v. Epyx, Inc.*[198] The district court ruled that defendant Epyx's arcade title *World Karate Championship* infringed Data East's *Karate Champ* and that, beyond the graphical improvements of the Epyx game, the games were practically identical.[199] On appeal, the Ninth Circuit applied the total concept and feel test to determine similarity.[200] The district court identified fifteen similar elements, all "depicting the performance of karate martial arts combat."[201] The Ninth Circuit held that all of the similar elements fell under the scope of the merger and *scènes à faire* doctrines.[202] The court concluded that the range of possible expressions of a karate tournament is substantially limited by the traditional presentation of such a tournament.[203] Furthermore, the court stated that the technical limitations, for example, using the same white and red colors for the opposing teams, should be viewed in light of the limited capabilities of the hardware to present multiple colors.[204] Ultimately, the court held that the only expressive elements available for the intrinsic similarity review were the style of the background and the style of the scoreboards, which

195. *Id.* ("Given their close connection with the underlying game, K. C. Munchkin's maze design, scoring table, and 'dots' are sufficiently different to preclude a finding of infringement on that basis alone.").

196. *Id.* at 618.

197. *Id.* ("The K.C. Munchkin gobbler has several blatantly similar features, including the relative size and shape of the 'body,' the V-shaped 'mouth,' its distinctive gobbling action (with appropriate sounds), and especially the way in which it disappears upon being captured.").

198. 862 F.2d 204 (9th Cir. 1988)

199. *Id.* at 206 ("The district court found that except for the graphic quality of Epyx's expressions, part of the scoreboard, the referee's physical appearance, and minor particulars in the "bonus phases," Data East's and Epyx's games are qualitatively identical.").

200. *Id.* at 208–09.

201. *Id.* at 209.

202. *Id.* ("After careful consideration and viewing of these features, we find that they necessarily follow from the *idea* of a martial arts karate combat game, or are inseparable from, indispensable to, or even standard treatment of the *idea* of the karate sport. As such, they are not protectable.").

203. *Id.*

204. *Id.* ("Furthermore, the use of the Commodore computer for a karate game intended for home consumption is subject to various constraints inherent in the use of that computer. Among the constraints are the use of sprites, and a somewhat limited access to color, together with limitations upon the use of multiple colors in one visual image.").

the court ruled no teenage boy could consider similar.[205]

In *Data E.*, the games at issue were practically identical. However, Epyx's title had better graphics due to more advanced hardware. The court's use of the limiting doctrines effectively allowed Epyx to make a graphically updated version of *Karate Champ* and use the limitations of the hardware as a reason to keep the same style.

D. THE *STREET FIGHTER II* CASE

Data East was also the defendant in *Capcom U.S.A., Inc. v. Data E. Corp.*[206] Plaintiff, Capcom, alleged that Data East copied its popular fighting game *Street Fighter II* with its clone game, *Fighter's History.*[207] Data East argued that Capcom's *Street Fighter II* was merely a standard fighting game that used stereotypical characters.[208] The court acknowledged that *Street Fighter II* hailed from a pedigree of games, including Data East's *Karate Champ.*[209] However, the court found that unlike *Karate Champ*, the new title featured fanciful characters that performed "unreal moves" during the fights.[210]

The court applied a modified version of the total concept and feel test, borrowing the filtration approach used in the abstraction-filtration-comparison test to isolate the protectable expression.[211] One area where the court found the idea-expression merger particularly limiting was in the game's interface and control sequences.[212] The court found that the underlying idea (the move to be performed by issuing the command), and the expression (the order in which the commands were issued) were inextricably linked.[213] Moreover, the court concluded that the limit on button combinations restricted any expression in control combinations.[214]

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205. *Id.* at 209–10 ("The lower court erred by not limiting the scope of Data East's copyright protection to the author's contribution—the scoreboard and background scenes. In actuality, however, the backgrounds are quite dissimilar and the method of scorekeeping, though similar, is inconsequential. Based upon these two features, a discerning 17.5 year-old boy could not regard the works as substantially similar. Accordingly, Data East's copyright was not infringed on this basis either.").

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

207. *Id.* at *1.

208. *Id.* at *2 ("Data East argues that there is nothing innovative about Capcom's Street Fighter II. Rather, Data East maintains that Street Fighter II is just another entry into an already crowded field of one-on-one fight games—a genre created by Data East—and is comprised of largely stereotypical characters and fight moves that are commonplace and unprotectable.").

209. *Id.*

210. *Id.* at *2.

211. *Id.* at *5.

212. *Id.* at *6–9.

213. *Id.* at *7 ("[T]he expression of an idea and the underlying idea frequently merge in the area of control sequences because the player simply presses the button corresponding to the move he wishes to have produced on the screen. For example, to get a fighter to kick, the player simply presses one of the three kick buttons. To get a fighter to jump up, the player simply moves the joystick into a vertical position—the idea and its expression coincide.").

214. *Id.* at *7 ("In addition, and perhaps more importantly, several functional and practical constraints that limit the number of ways the control sequences can be designed. For example, the use of a joystick is functionally constrained because there are only eight possible positions the joystick can occupy.").

Relying on the rule from *Atari, Inc. v. N. Am. Philips Consumer Elecs. Corp.* (the *PAC-MAN* case), the court focused on the audio and visual presentation of the characters to distinguish any other unique elements.[215] Looking to prior cases granting protection to character designs, the court struggled to analogize the present issue due to the less fanciful nature of the *Street Fighter* game.[216] The court applied limiting doctrines to the various special moves the characters performed.[217] Engaging in a detailed analysis of each character and their special maneuvers, the court found substantial similarity in some characters that did not represent unprotectable archetypes.[218] For example, the court did not find similarity between two characters representing generic wrestlers found in both party's games since they were different ethnicities and wore different styles of dress.[219] However, the court did find similarity between two female Chinese fighters even though they were not "virtually identical."[220] All other elements were found to be unprotectable expression due to merger and the *scènes à faire* doctrines.

After analytically dissecting the majority of both games and finding few protectable expressive elements to be similar, the court then applied the intrinsic test to search for "virtual identity" instead of substantial similarity.[221] Under virtual identity's heightened standard, slight variations in the characters were sufficient to avoid the conclusion that they were virtually identical.[222]

Previously, changing the appearance of an otherwise similar character was held as enough to constitute copyright infringement. This case

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215. *Id.* at *10 (concluding that while the basic concept underlying a game might be an unprotectable idea, "[t]he audio component and the concrete details of the visual presentation constitute the copyrightable expression of that game 'idea'").

216. *See Atari*, 672 F.2d at 617 (finding substantial similarity between *PAC-MAN* characters and the characters in a competitor's videogame.); Midway Mfg. Co. v. Bandai-America, Inc., 546 F. Supp. 125, 146 (D.N.J 1982) (holding that the particular insectile shape of the aliens in *Galaxian* game was protectable.); Universal City Studios, Inc. v. Nintendo Co. Ltd., 615 F. Supp. 838, 859 (S.D.N.Y. 1985) (finding Donkey Kong sufficiently distinct from King Kong).

217. *Capcom*, 1994 WL 1751482, at *11–12.

218. *Id.* at *12 ("Having completed a detailed analytic dissection of the alleged similarities, the Court finds that of the eight pairs of characters and twenty-seven special moves at issue, three characters and five special moves in Fighter's History are similar to protectable characters and special moves in Street Fighter II.").

219. *Id.* at *17.

220. *Id.* at *19–20 n.7 ("Although the two characters wear different clothes and have different fighting styles, the fact remains that the two are both female Chinese fighters. Given the legion of fight characters from which Data East had to choose its characters for Fighter's History, the fact that it also selected a female Chinese fighter is troublesome to the Court. This fact alone is reason to find similarity between the two characters.").

221. *Id.* at *13 ("It is indisputable that Street Fighter II is largely comprised of unprotectable elements. The vast majority of the moves—over 650 of them—are unprotectable, commonplace punches and kicks. In addition, the Court finds that even a majority of the moves that are allegedly special and fanciful are ultimately unprotectable either because they are unoriginal scenes-à-faire or have not actually been copied by Data East. As a result, the virtual identity standard is the appropriate standard for the Court to apply in assessing the subjective similarity between the two games.").

222. *Id.* at *14 ("[The characters] Chun Li and Feilin also have some significant differences in appearance. Although they are both Asian women, their costumes are dissimilar and they have no common fight moves. They are not virtually identical to one another.").

departed from prior precedent and concluded the similarity between street fighter characters in two different games that performed virtually identical moves, but wore different costumes, was not enough to constitute infringement.[223]

There was a trend in the early cases where finding substantial similarity depended on the similarity of the game's specific characteristics. Protection for overall presentations or themes of videogames was limited, and the limitations were defined by the nature of the subject matter, the ideas being expressed, and the equipment on which the games were built.

IV. THE RECENT CASES

In recent years, the videogame industry has exploded. Newer platforms, like handheld mobile phones and web browser-based games, have led to an increase in new and experimental game designs.[224] Recognizing the new generation of creativity and the novelty of games, modern courts appear more willing to find substantial similarity in copyright infringement cases.[225] Today, courts exclude less material through the limiting doctrines of merger and *scènes à faire*, but continue to broadly define the ideas behind games.

A. THE *TETRIS* CASE

In *Tetris Holding, LLC v. Xio Interactive, Inc.*,[226] the court examined *Mino*, a clone of the famous game *Tetris*, and found protectable aspects of the game that earlier courts would have likely classified as unprotectable ideas or inseparable expression.[227] There was no dispute that *Mino* was a clone of *Tetris* and that Xio Interactive fully intended to economically profit from the established market for *Tetris*-like games.[228] Xio Interactive asserted that no aspects of the *Tetris* game could be protectable expression since *Tetris* is purely made up of game mechanics with minimal artistic expression.[229]

Determining where idea-expression should be applied to *Tetris*, the court reviewed the game under two different tests for analyzing software:

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223. *Id.* at *19.

224. Christine Greyvenstein, *Mobile the Future of Gaming*, ITWEB (July 8, 2013), http://www.itweb.co.za/index.php?option=com_content&view=article&id=65498.

225. Eric Goldman, *Recent Ruling in Triple Town/Yeti Town Game App Dispute Provides Cautionary Lessons for Both EA and Zynga*, FORBES (Sept. 27, 2012), http://www.forbes.com/sites/ericgoldman/2012/09/27/recent-ruling-in-triple-townyeti-town-game-app-dispute-provides-cautionary-lessons-for-both-ea-and-zynga/.

226. 863 F. Supp. 2d 394 (D.N.J. 2012).

227. *See id.* at 410–14.

228. *Id.* at 397 ("Indeed, 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*.").

229. *Id.* at 399 ("Before releasing its product, Xio researched copyright law, both through its own independent studying and based on advice of counsel, before designing its game. Based on this research, Xio believed it could freely copy any part of *Tetris* that was based on a 'rule of the game' or that Xio viewed as being functional to the game.").

the Whelan test[230] and the abstraction-filtration-comparison test.[231] Both tests perform similar analyses in that they both discern the function and purpose of the software to identify the underlying ideas and then compare the remaining material for similarity.[232] In both approaches, the appropriate method to extract the protectable material is through the use of the merger and *scènes à faire* doctrines.[233]

Applying the merger doctrine, the court reviewed the jurisprudence for videogame substantial similarity and drafted a new way to articulate the merger doctrine:

> [I]f an expressive feature is dictated by functional considerations then there cannot be a number of ways to implement it. Rather, one's original expression is protected by copyright—even if that expression concerns an idea, rule, function, or something similar—unless it is so inseparable from the underlying idea that there are no or very few other ways of expressing it.[234]

The court rejected the application of the *scènes à faire* doctrine to a purely fanciful game like *Tetris* because there was no basis in reality to draw upon the required elements for such a genre.[235]

The court defined the game mechanics of *Tetris* as the underlying ideas of the game, covering both the general descriptions of the game and specifics about how pieces move and fit together.[236] Despite the broad classification of the games' ideas, the court looked to the nearly identical artistic style and visual presentation of both games' rules and found them strikingly similar.[237] In particular, the style of the pieces were analogous to the reproduction of similar game characters, and the court found that when dealing with fanciful characters, a designer has a broad range of expressive freedom.[238] Also, the merger doctrine did not foreclose the use of the particular expression of blocks used in *Tetris* since games following the original *Tetris* have released novel methods of expressing block tessellation.[239] Further, advancements in computer hardware have all but eliminated the technical constraints of the past and game developers now

230. *See* Whelan Assocs., Inc. v. Jaslow Dental Lab., Inc., 797 F.2d 1222 (3d Cir. 1986). The Whelan test, also described as the Continuum Discernment test, defines the purpose or function of the utilitarian elements of a work as the work's ideas and everything else as unnecessary to the function as expression. *See id.*

231. *Tetris Holding*, 863 F. Supp. 2d at 401–03.

232. *Id.* at 403.

233. *Id.* at 407.

234. *Id.* at 408.

235. *Id.* ("Xio does not dispute that *Tetris* is a purely fanciful game, meaning it has no grounding in the real world, unlike a video game simulating a karate match or a golf game. Therefore, the analyses in *Data East* and *Incredible Technologies* are largely inapplicable; the scènes à faire doctrine has little weight in instances such as this because there are no expressive elements 'standard, stock, or common' to a unique puzzle game that is divorced from any real world representation.").

236. *Id.* at 409–10.

237. *Id.*

238. *Id.* at 411 ("The style, design, shape, and movement of the pieces are expression; they are not part of the ideas, rules, or functions of the game nor are they essential or inseparable from the ideas, rules, or functions of the game.").

239. *Id.* at 412.

have access to numerous colors, motions, and control schemes. The court found it unlikely that Xio could not take advantage of this new freedom.[240] On the whole, the court in *Tetris* drew a close line to the game mechanics as unprotectable ideas,[241] finding all the functions of *Tetris* not directly related to the playing functions to be protectable expression.[242]

The *Tetris* court appeared to acknowledge that the rules of a game will determine the starting line for drawing the idea-expression dichotomy.[243] The court defined the rules of *Tetris* with more particularity than courts had in earlier cases, but also refused to exclude other elements through the use of the limiting doctrines.[244]

B. THE *TRIPLE TOWN* CASE

The *Tetris* case is the most recent court opinion concerning substantial similarity in videogames. However, several cases involving substantial similarity that settled out of court are still useful to examine how courts measure copyright issues and how parties interpret the law.

In an order denying a motion to dismiss a complaint brought by Spry Fox, an indie game developer, against 6Waves, a leading social and mobile platform game publisher, the court took a permissive view of what aspects of a game are protectable expressions.[245] Spry Fox makes a social game called *Triple Town* and entered into negotiations with 6Waves to produce a Facebook version of the game.[246] Shortly after negotiations commenced, 6Waves released the game *Yeti Town*, which Spry Fox thought was a clone of *Triple Town*.[247] Faced with 6Waves' motion to dismiss, the court considered whether Spry Fox stated a plausible claim for infringement.[248] In determining the claim's validity, the court examined whether *Yeti Town* was substantially similar to *Triple Town*, basing its determination on a description of the games and comparison pictures.[249]

Applying the extrinsic analysis step of the total concept and feel test,

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240. *Id.* ("Considering the exponential increase in computer processing and graphical capabilities since that unique variation on *Tetris*'s rules, the Court cannot accept that Xio was unable to find any other method of expressing the *Tetris* rules other than a wholesale copy of its expression.").

241. *Id.*

242. *Id.* at 413 ("I find the following elements are also protected expression and further support a finding of infringement: 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.").

243. *Id.* at 408 ("To separate ideas from expression, the parties offer competing definitions of game rules, but I do not need to articulate a rigid, specific definition.").

244. *Id.* at 411.

245. Goldman, *supra* note 225.

246. Order at 2, Spry Fox, LLC v. LOLAPPS, Inc., No. C12-147RAJ (W.D. Wash. Sept. 18, 2012), *available at* http://digitalcommons.law.scu.edu/cgi/viewcontent.cgi?article=1150&context=historical.

247. *Id.* at 2.

248. *Id.* at 4 (citing Bell Atl. Corp. v. Twombly, 550 U.S. 544 (2007)).

249. *Id.* at 6.

the court filtered protectable elements using the limiting doctrines.[250] The court defined the ideas of the game abstractly and distilled the game into three ideas: (1) players match three lower level objects in order to create a higher level object; (2) antagonist objects attempt to hinder the player; and (3) other objects help remove objects.[251] The articulation of the original game's ideas left many aspects of the game eligible as protected expression.[252] The court held that the *scènes à faire* doctrine only applied to the generic elements common to many videogames, such as coins and the hierarchical matching mechanic.[253] However, even those generic elements had room to be considered protectable expression.[254] In contrast to the *Tetris* case, the *Triple Town* court concluded that the layout of the game play area, the "six-by-six game grid," was likely functional and therefore unprotectable.[255] The court also found that, despite looking artistically different, the remaining material was close enough to the original game's scope and design to suggest similarity under the intrinsic test.[256] The fact that several videogame bloggers suggested that the games were similar was sufficient to show likelihood of success under the intrinsic test.[257]

Based on this opinion, it appears that some courts are no longer using the limiting doctrines to restrict expression based on technical constraints.[258] Software capabilities have greatly progressed, and developers have a broader range of tools for promoting expressive freedom.[259] As a result, to avoid committing copyright infringement, game clones may be required to show greater expressive distinction from the original work. The *Spry Fox* opinion also suggests that game mechanics, as expressed in a user interface, have room for protection as artistic

250. *Id.* at 6–12.

251. *Id.* at 7–8 ("At this stage of the litigation, where the court has only the complaint, its description of Triple Town, and the accompanying screen shot images, the court concludes that the idea underlying Triple Town is that of a hierarchical matching game, one in which players create objects that are higher in the hierarchy by matching three objects that are lower in the hierarchy. Frustrating the player's efforts are antagonist objects; aiding the player are objects that destroy unwanted or ill-placed objects.").

252. *Id.* at 8.

253. *Id.* at 8–9.

254. *Id.* at 8 ("There are only so many ways to express the concept of objects in a hierarchy transforming into objects that are higher in the hierarchy.").

255. *Id.* at 9.

256. *Id.* at 10–12 ("The object hierarchy is similar. Progressing from grass to bush to tree to hut is similar to progressing from sapling to tree to tent to cabin. Perhaps more importantly, the object hierarchy coupled with the depiction of the field of play comprise a setting and theme that is similar to Triple Town's. A snowfield is not so different from a meadow, bears and yetis are both wild creatures, and the construction of a 'plain' is not plausibly similar to the construction of a 'patch', at least as the two games depict those terms.").

257. *Id.* at 12 ("To illustrate that point, it is not necessary to go beyond the reports of video game bloggers that Spry Fox describes in its complaint. The bloggers, who are ordinary observers of video games, find Yeti Town and Triple Town to be substantially similar.").

258. Goldman, *supra* note 225.

259. *See* Eric Johnson, *King Sues 6Waves for Alleged Game Copyright Infringement. Here's the Complaint*, ALL THINGS D (Aug. 27, 2013), http://allthingsd.com/20130827/king-sues-6waves-for-alleged-game-copyright-infringement-heres-the-complaint/.

expression.[260]

C. THE *SIMS SOCIAL* CASE

Post-*Tetris* and *Spry Fox*, many cases have developed and settled between two of the largest publishing companies in the industry: Electronic Arts, Inc. ("EA") and Zynga, Inc. ("Zynga").[261] One complaint sent by EA alleged that Zynga misappropriated EA's game, *The Sims Social*, when it released *The Ville*.[262] EA identified several protectable assets of *The Sims Social* that Zynga allegedly reproduced in *The Ville*: the "animation sequences, visual arrangements, characters' motions and actions, and other unique audio-visual elements."[263] EA argued that the "two games are nearly indistinguishable."[264]

EA's primary strategy appeared to deliberately identify each of the ideas and features in *The Sims* and derivative *The Sims Social*, and present the creative and unique expression of the ideas found in the game. EA noted that *The Sims* characters speak to one another in "Simmish," a made-up language and use "simolians" for money.[265] Extracting those features, EA asserted that the court should find that the features were unique creative expressions of its game.[266] Furthermore, EA provided the court with side-by-side comparison images of both games to highlight the visual similarities in the various game elements.[267]

In response, Zynga filed a motion to strike several components of the EA complaint.[268] The EA complaint referred to other litigation in which Zynga was involved, trying to suggest a pattern of producing copyright infringing clones.[269] Ultimately, the parties settled for an undisclosed amount of money.[270] Both videogames at issue lost their popularity with users shortly after their launch, and EA has since stopped offering *The Sims Social*.[271] It is possible that the futility continued litigation over a game with a short life cycle prompted the settlement, as it would be wasteful for

260. Greg Lastowka, *Spry Fox Attacks the Clones: Is Palpatine Behind This?*, TERRA NOVA (Sept. 28, 2012), http://terranova.blogs.com/terra_nova/2012/09/a-few-random-thoughts-on-triple-town.html.

261. Nicholas M. Lampros, *Leveling Pains: Clone Gaming and the Changing Dynamics of an Industry*, 28 BERKELEY TECH. L.J. 743, 770 (2013).

262. Complaint, Electronic Arts, Inc. v. Zynga, Inc., No. 3:12-cv-04099 (N.D. Cal. Aug. 3, 2012).

263. *Id.* at 3.

264. *Id.*

265. *Id.*

266. *Id.*

267. *Id.*

268. Defendant's Motion to Strike, Electronic Arts, Inc. v. Zynga, Inc., No. 3:12-cv-04099-SI (N.D. Cal. Sept. 14, 2012).

269. *See* Michael Arrington, *U.S. Judge Slaps Around Brazilian Court in* Zynga v. Vostu, TECHCRUNCH (Aug. 11, 2011), http://techcrunch.com/2011/08/11/u-s-judge-slaps-around-brazilian-court-in-zynga-v-vostu/.

270. Mike Thomson, *Breaking: EA and Zynga Reach Settlement in Lawsuit Surrounding the Ville*, INSIDESOCIALGAMES (Feb. 15, 2013), http://www.insidesocialgames.com/2013/02/15/breaking-ea-and-zynga-reach-settlement-in-lawsuit-surrounding-the-ville/.

271. *Id.*

both companies.

V. RECOMMENDATIONS

The trend in recent cases towards less restrictive use of the limiting doctrines is beneficial for developers creating new and experimental game designs since success often hinges on creating new and entertaining game mechanics.[272] While it is unknown how the court would have ruled in *The Sims Social* case, the trend in the case law suggests that the court would have acknowledged the many ways to express the underlying ideas behind the game. How courts apply the limiting doctrines to a game that establishes its own genre is always going to be challenging. In some cases, courts may apply *scènes à faire* to the game genre and the game mechanics. Where novel storytelling has emerged as a new focus, courts may apply the limiting doctrines to the underlying subject matter. In other cases, the limiting doctrines might be applied to videogames *generally*, as unique mediums with mandatory elements. Each approach could result in fundamentally different understandings of what elements are required in order for a game to establish a new genre. This uncertainty creates a confusing climate for game developers, particularly independent videogame developers, who do not have the legal support of a publisher. However, despite this unclear approach, developers can currently feel confident that there is more available protection than in the past.

To create a climate that fosters greater creativity and more participation from independent game developers, the move towards stronger protection for videogame mechanics and artistic expression should continue. If this trend continues, parties like Zynga, 6Waves, and Xio Interactive would no longer be able to gain the benefits from other's creativity without adding sufficient unique expression of their own. This will drive both the evolutionary progression of game design and protect authors of original creativity. As courts continue to become more comfortable examining the capabilities of modern computing technology, merging ideas with expression resulting from technical limitations should pose less of a challenge for copyright holders.

Creating a bright-line rule for videogame's dynamic culture will obviously be difficult. However, finding more expressive freedom in videogames resulting from a less restrictive application of the limiting doctrines is a solution that works for all the substantial similarity tests currently used in the circuit courts.

CONCLUSION

It is difficult to tell whether the *Tetris Holdings* and *Spry Fox* cases have changed anything. First, neither case reached the appellate level, so

272. Russ Fushtick, *Cloning Case Files*, POLYGON (Feb. 22, 2012), http://www.polygon.com/2012/10/5/3461458/cloning-case-files-vlambeer.

their authority will only be persuasive for the majority of courts. Second, neither case fundamentally changed or clarified the application of the rules for videogame cases. Instead, the outcomes of the modern cases could be a result of recent courts' differing applications of the tests in light of the development of legal standards for software copyright.

Nevertheless, comparing Early Era court language to the later cases is useful for predicting the future of videogame cases. Modern courts appear more willing to protect features of games that are seen as expressions of game mechanics, where prior courts readily excluded most expression from protection. The various tests all follow a process where the court articulates the *ideas* of the game, applies the limiting doctrines to the *expression of those ideas*, and then compares appropriate protectable elements. Despite the procedural similarities, the rules are still unclear and the outcomes of potential cases are not readily discernible.

Notwithstanding the confusion surrounding the legal status of videogame clones, the gaming industry is acknowledging the apparent expansion of copyright protection for games. This year's Game Developers Conference involved an increased interaction between major publishers and indie developers, suggesting a move toward the cooperation of smaller developers with the larger industry players.[273] The Apple Store, which has been credited with the expansion of the mobile games industry, recently changed its store policy to allow individuals to petition Apple to take down apps for copyright infringement.[274] The Apple Store has also developed a more robust reporting website, making it easier for developers to report knockoff games.[275]

The apparent expansion of copyright protection is positive for the industry, as increased protection would make it harder to cloners to gain benefits from other's creativity without adding sufficient unique expression of their own. This, in turn, will drive both the evolutionary progression of game design and protect authors of original creativity.

273. Chris Suellentrop, *Indies Grab the Control at a Game Conference*, N.Y. TIMES (Mar. 31, 2013), http://www.nytimes.com/2013/04/01/arts/video-games/game-developers-conference-celebrates-indie-creators.html?pagewanted=all.

274. Chris Foresman, *Apple Now Provides Online Tool to Report App Store Ripoffs*, ARSTECHNICA (Sept. 4, 2012), http://arstechnica.com/apple/2012/09/apple-now-provides-online-tool-to-report-app-store-ripoffs/.

275. *iTunes Content Dispute*, APPLE, http://www.apple.com/legal/internet-services/itunes/appstorenotices/ (last visited Oct. 4, 2013).