Rules of the Game:
Are the Rules and Mechanics of Video Games Copyrightable?

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Abstract

The video game industry has long been characterized by game developers borrowing gameplay features from earlier releases to develop their own new and innovative games. This practice has persisted due to the widespread belief that the rules of video games are excluded from copyright protection under § 102(b) of the Copyright Act, either for being too abstract or for having a functional nature. This Article is the first scholarly work to argue that this belief is mistaken and that none of the § 102(b) exclusions categorically apply to such rules. Specifically, it proposes that most video game rules are in fact eligible for "thin" copyright protection, and that such protection would strike an appropriate balance between incentivizing creativity and permitting competition in the industry. This Article concludes that such a copyright would provide improved legal clarity and a reliable means of preventing video game "cloning," which does not exist in the status quo.

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Table of Contents

Introduction 38
I. Rules and Mechanics in Games 42
A. *Defining Rules* 43
B. *Defining Mechanics* 44
C. *Distinguishing Between Rules and Mechanics* 46
1. Shooter Games 46
2. Auto Chess and TFT 47
II. Copyright Protection for Rules and Mechanics 48
A. *Overview of Relevant Copyright Doctrine* 49

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1. Audiovisual Works 49
2. Tabletop Games 50
3. Computer Programs 51
B. *§ 102(b) Exclusions Applied to Rules* 52
1. Exclusions for Abstractness 52
2. Exclusions for Functional Nature 56
III. Consequences of Copyright Protection for Rules 61
A. *Benefits of a Thin Copyright* 62
1. Improving Clarity 63
2. Preventing Cloning 64
B. *Addressing Counterarguments Concerning Scope* 67
1. Thin Copyright is Not Overly Broad 67
2. Thin Copyright is Not Overly Narrow 70
C. *Limitations and Alternatives* 71
Conclusion 72

Introduction

Much of the innovation in the video game industry in the last decade can be attributed to "mods," or fan-made modifications to the assets of an existing game.[1] Some of the most popular video games of all time, such as *Counter-Strike*, *Team Fortress 2*, *PUBG: Battlegrounds*, *League of Legends*, and *Dota 2* were all based directly on mods within earlier games and created explosions in popularity of their respective genres.[2]

In January 2019, developer Drodo Studio continued this tradition by releasing *Dota Auto Chess*, a mod of the already mod-based *Dota 2*, which rapidly achieved nearly unheard of levels of mainstream success.[3] *Auto Chess* added a new game mode to *Dota 2* in which players managed a "chess board"

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1. *See* Steven Asarch, *What is Auto Chess? From 'DOTA 2' Mod to Gaming Phenomenon*, Newsweek (Jun 17, 2019, 11:39 AM), https://www.newsweek.com/what-auto-chess-teamfight-tactics-underlord-1444379 [https://perma.cc/BK59-NP2J]; Davi Nonato Braid, *10 Most Influential Mods In Video Game History*, TheGamer (Apr. 24, 2021), https://www.thegamer.com/game-best-mods-influential-history/#black-mesa [https://perma.cc/YPW7-SE75].
2. *See* Braid, *supra* note 1. *PUBG* alone has been attributed with inspiring several more of the world's most popular games, like *Fortnite*, *Fall Guys*, and *Apex Legends*. *See also* Ashley Buckwell, *A Brief History of the Battle Royale Genre*, Acer Corner (Aug. 2023), https://blog.acer.com/en/discussion/358/a-brief-history-of-the-battle-royale-genre#:~:text=The%20battle%20royale%20genre%20is,only%20one%20person%20left%20standing [https://perma.cc/PBK2-64YD] (last visited Feb. 25, 2024).
3. *See* Nicole Carpenter, *One of the Biggest Games in the World Is a Mod of a Mod*, Vice (Apr. 10, 2019, 10:22 AM), https://www.vice.com/en/article/597mg5/one-of-the-biggest-games-in-the-world-is-a-mod-of-a-mod [https://perma.cc/XB3G-UYA4].

full of characters and engaged in strategic battles against one another, a style of gameplay that was entirely unique at the time.[4]

Immediately upon release, *Auto Chess* was widely praised for its creativity and complex strategy.[5] It became massively popular among streamers on twitch.tv,[6] the world's most popular website for gaming livestreams,[7] quickly exposing the mod to a wide audience. *Auto Chess* was so successful that, in less than four months after its release, it had amassed over eight million players. This player count would have made *Auto Chess* one of the five most popular games on Steam, the platform which distributed the game, had it been a standalone title independent of *Dota 2*..[8]

Naturally, all this success drew the attention of several large game developers. Mere months after *Auto Chess*'s launch, gaming behemoths Riot Games, Valve Corporation, and Blizzard Entertainment had all announced their own standalone game versions of the mod,[9] spawning what is now known as the "auto-battler" genre. As might be expected, such intense competition from much larger developers came at a cost for Drodo Studio. Although Drodo was eventually able to spin *Auto Chess* out into its own standalone game which still exists today, Riot's auto-battler game, *Teamfight Tactics* (*TFT*), became the most popular game in the genre by far.[10]

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4. *Id.*
5. *See, e.g.,* Daniel Tack, *What Is Dota Auto Chess And Why Is Everyone Playing It?*, Gameinformer (Jan 14, 2019, 01:35 PM), https://www.gameinformer.com/2019/01/14/what-is-dota-auto-chess-and-why-is-everyone-playing-it [https://perma.cc/8894-5X6H] ("It's not chess, and it's not Dota, but it's a great game to queue up and play with friends or solo. It takes a few games to start to understand how everything works, but it's got some really fun strategy hooks underneath everything.").
6. *See* Joe Wong, *Auto Chess: The Custom Game Mod Taking over Dota 2 & Twitch*, Esports Insider (Feb. 5, 2019), https://esportsinsider.com/2019/02/dota-auto-chess-the-custom-game-mod-taking-over-dota-2-and-the-front-page-of-twitch.
7. *See* Ethan May, *Streamlabs and Stream Hatchet Q3 2022 Live Streaming Report*, Streamlabs (Nov. 11, 2022), https://streamlabs.com/content-hub/post/streamlabs-and-stream-hatchet-q3-2022-live-streaming-report [https://perma.cc/Y2KM-QCRY].
8. *See* Ali Jones, *Dota Auto Chess player count tops eight million*, PCGamesN (Apr. 30, 2019), https://www.pcgamesn.com/dota-2/dota-auto-chess-player-count [https://perma.cc/Y4VN-K9V8] ("Concurrent player counts for the mode . . . would put Auto Chess comfortably within Steam's top five.").
9. *See* Hongyu Chen, *Valve Developing Its Own Standalone Version of Dota Auto Chess*, Esports Observer (May 22, 2019), https://archive.esportsobserver.com/valve-dota-auto-chess/ [https://perma.cc/7R6B-9M7S] (announcing Valve's version); Ryan Gilliam, *Riot Games Is Making Its Own League of Legends Auto Chess Game*, Polygon (Jun. 10, 2019), https://www.polygon.com/2019/6/10/18659021/teamfight-tactics-auto-chess-league-of-legends-riot-games-mode [https://perma.cc/2S8K-ZWZ6] (announcing Riot's version); Alex Walker, *Hearthstone Battlegrounds Is Just What the Game Needed*, Kotaku (Nov. 12, 2019), https://www.kotaku.com.au/2019/11/hearthstone-battlegrounds-is-just-what-the-game-needed [https://perma.cc/6P3E-TBX7] (announcing Blizzard's version).
10. Fraser Brown, *What Happened to Autobattlers?*, PC Gamer (Jan. 12, 2022), https://www.pcgamer.com/what-happened-to-autobattlers [https://perma.cc/4WN2-4QAH].

I confess that I myself was an early *Auto Chess* adopter who abandoned it in favor of *TFT*, and I cannot help but feel somewhat guilty for having so easily switched my allegiances. Drodo Studio developed an ingenious, entirely unprecedented type of gameplay, only to have it largely copied by other developers who have taken over the auto-battler market.[11] At the same time, this copying has led to many improvements in the auto-battler genre and resulted in several quality games for consumers to choose from, benefitting the video game industry overall. *TFT* in particular has made many gameplay innovations based on the original *Auto Chess*, to the extent that newer versions of *Auto Chess* have borrowed some of those features in return.[12]

The dynamic of a large studio "ripping off" a smaller competitor might seem somewhat unsavory, but this process of games and their mods spawning imitators has nevertheless proven to be an integral feature of the gaming industry which fosters both innovation and creativity.[13] As just one example, Riot Games' flagship game, *League of Legends*, heavily borrows gameplay elements from the same *Warcraft III* mod that inspired *Dota 2*,[14] one of Valve's most popular games and the inspiration for *Auto Chess*. And, as we have already seen, the gameplay of *Auto Chess* itself has been borrowed by a host of other auto-battler games, creating an unbroken video game "family tree" between a 2003 *Warcraft* game[15] and several of today's most innovative titles like *Auto Chess* and *TFT*. The origins of many other popular games can similarly be traced to earlier games or mods from which they borrowed content liberally.[16] Much of the quality and diversity in the gaming industry today can

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11. *See id.*
12. For example, early versions of *Auto Chess* had a cumbersome system for "levelling up" units. After *TFT* introduced an automatic "level up" system, *Auto Chess* adopted a similar system.
13. *See* Lies van Roessel & Christian Katzenbach, *Navigating the Grey Area: Game Production Between Inspiration and Imitation*, 26 Convergence 403, 403 (2020) ("Today, the production of new games still necessarily involves borrowing existing elements. The fact that new games build on existing ones has not just resulted in shameless rip-offs; it has also led to the emergence and evolution of genres, such as first-person shooters, platform games or matching tile games. In fact, a certain level of imitation is well accepted in the industry; it is even believed to foster creative development and promote innovation in game design.").
14. This *Warcraft III* mod is called *Defense of the Ancients*. *See* Braid, *supra* note 1.
15. *Warcraft III: Frozen Throne*, Mod DB, https://www.moddb.com/games/warcraft-iii-frozen-throne/downloads/defense-of-the-ancients-mod [https://perma.cc/VQ5V-ZS6U] (providing release info for *Warcraft III* and *Defense of the Ancients*).
16. *See, e.g.*, Braid, *supra* note 1; Buckwell, *supra* note 2; Jacob Nierenberg, *The Local Origins of Minecraft: A Conversation with Indie Gamer Zachary Barth*, Crosscut (Aug. 10, 2015), https://crosscut.com/2015/08/the-godfather-of-minecraft-a-conversation-with-indie-gamer-zachary-barth [https://perma.cc/H9L9-KUS2] (explaining how indie game *Infiniminer* inspired *Minecraft* and other "block-world" games).

therefore be attributed to game developers borrowing from and improving upon the content of earlier titles.[17]

The imitation present in the video game industry, however, raises an interesting legal question. In the United States, intellectual property (IP) law is designed to incentivize "the progress of science and useful arts" by giving creators the right to prevent others from using, copying, or creating derivatives of their works.[18] Why then, are video game developers not constantly suing other developers who have copied elements of their gameplay?

This lack of IP disputes is because, according to all conventional accounts, copying gameplay is entirely legal. Video games do receive some IP protection that their developers can leverage to prevent imitation. Copyright law gives developers the right to prevent their characters, storylines, artistic assets, and source code from being copied.[19] Trademark law also gives developers the exclusive right to the branding and the titles of their games.[20] However, gameplay itself is given almost no protection by current IP law.[21] Courts have long held that "rules and mechanics" are not copyrightable, including in the context of video games.[22] Additionally, while it is sometimes possible to patent aspects

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17. *See* van Roessel & Katzenbach, *supra* note 13, at 416 ("Developers highly value their common practices of experimenting with existing game mechanics, in line with the historical, public domain character of games' rule-based systems . . . . According to our interviewees, diminishing the leeway might even curb innovation and genre development.").
18. U.S. Const. art. I, § 8, cl. 8.; 17 U.S.C. § 106.
19. *See* BJ Ard, *Creativity Without IP? Vindication and Challenges in the Video Game Industry*, 79 Wash. & Lee L. Rev. 1285, 1318 (2022) ("Copyrights can protect video game plotlines and characters as well as discrete game assets like art, music, and underlying code").
20. *See id.* at 1335 ("Trademark law prohibits clones or other competing games from using titles, logos, or promotional materials that are confusingly similar").
21. *See id.* at 1318 ("Although copyright and related protections have obvious applications against bootlegging, different rules are at play when competitors copy one another to make new games. Copyright in the latter context leaves ample space for cloning."); van Roessel & Katzenbach, *supra* note 13, at 406 ("[A] unique part of games compared to other audiovisual media is the . . . rule-based system, for which the game designer is typically responsible. In copyright terms, this can be considered the unprotected idea of a creative work rather than the protected expression . . . . As such, games have an 'uncopyrightable core: the actual play of the game.'").
22. *E.g.*, Tetris Holding, LLC v. Xio Interactive, Inc., 863 F. Supp. 2d 394, 404 (D.N.J. 2012) ("The game mechanics and the rules are not entitled to protection, but courts have found expressive elements copyrightable . . . ."); DaVinci Editrice S.R.L. v. ZiKo Games, LLC, 183 F. Supp. 3d 820, 830 (S.D. Tex. 2016) ("Unlike a book or movie plot, the rules and procedures, including the winning conditions, that make up a card-game system of play do not themselves produce the artistic or literary content that is the hallmark of protectable expression."); *see also* Bruce E. Boyden, *Games and Other Uncopyrightable Systems*, 18 Geo. Mason L. Rev. 439, 442 (2011) ("For nearly a century, courts have uniformly held that games are not copyrightable. Courts have been considerably less forthcoming, however, with reasons for this doctrine.").

of gameplay, such patents are often prohibitively difficult and costly to obtain.[23] The status quo therefore leaves most game developers with little hope for protecting the rules of their games, which often require more creative effort to develop than any other part of gameplay.[24]

This Article suggets that the current consensus regarding the lack of copyright protection for video game rules is mistaken. Misunderstandings of both the nature of rules and the Copyright Act itself have led courts and scholars to incorrectly assume that § 102(b) of the Act, which lists several aspects of creative works that are not copyrightable, excludes video game rules from copyright protection.[25] Therefore, this Article argues that the current law should extend a "thin" form of copyright protection to game rules, which would strike an appropriate balance between protecting the creativity of video game developers and allowing for continued innovation and competition in the industry. Furthermore, thin copyright protection for game rules would provide two major benefits to the video game industry: it would serve as a more principled framework for the approach courts have already taken towards video game copyright and more effectively prevent the "cloning" of video games than the status quo.

Part I lays the groundwork for this argument by importing the distinction made by game design academics between the "rules" and the "mechanics" of video games into the legal context. Part II argues that once this distinction between rules and mechanics is understood, it becomes apparent that most video game rules are eligible for "thin" copyright protection, although mechanics are not. Part III discusses the consequences of extending thin copyright protection to game rules and argues this approach would effectively protect the creative expression inherent in video game rules without constraining legitimate competition in the gaming industry.

I. Rules and Mechanics in Games

Courts and legal scholars frequently use the terms "rules" and "mechanics" interchangeably.[26] However, those in the game design community treat

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23. *See* Ard, *supra* note 19, at 1332–34.
24. Thomas M. S. Hemnes, *The Adaptation of Copyright Law to Video Games*, 131 U. Penn. L. Rev. 171, 177 (1982) ("[A]uthors of video games invest at least as much of their talent and originality in the creation of new rules and methods of play as in the games' more arbitrary audiovisual effects. For this reason, the graphics/rules-of-play distinction that appears in the context of video games may save the chaff while discarding the wheat . . . .").
25. *See* 17 U.S.C. § 102(b).
26. *See Tetris Holding*, 863 F. Supp. 2d at 404 ("The game mechanics and the rules are not entitled to protection . . . ."); *see also* Christopher Lunsford, Comment, *Drawing a Line Between Idea and Expression in Videogame Copyright: The Evolution of Substantial Similarity for Videogame Clones*, 18 Intell. Prop. L. Bull. 87, 98 (2013) (citing *Tetris Holding* while using "mechanic" and "rule" interchangeably); Drew S. Dean, Comment,

rules and mechanics as distinct concepts, with rules being understood as constituent parts of mechanics.[27] This Article adopts the same distinction for two reasons. First, because video game developers are likely to have a distinction between rules and mechanics in mind, it is important for lawyers to appreciate this same distinction in order to provide effective counsel to game developers without creating confusion. Second, distinguishing between rules and mechanics allows for independent consideration of the IP protection to be extended to each gameplay component.

This Part first defines both "rules" and "mechanics," and then illustrates the distinction between the two terms using several examples. Drawing out this distinction is foundational to the legal analysis that follows in Parts II and III because that analysis concludes rules are eligible for copyright protection while mechanics are not.

A. *Defining Rules*

Three types of rules appear in games, the first of which game design scholars refer to as *operational rules*.[28] The most conventional of the three, operational rules are the written or pictorial instructions outlining how a game must be played.[29] Games can also include *constituative rules*,[30] which are underlying mathematical structures that constrain gameplay, and *implicit rules*, which are unstated norms of behavior that govern the interaction between players.[31] For example, in the board game *Monopoly*, the instructions included in the box contain the operational rules, the number of sides (six) on each die is a constituative rule, and the understanding that you should not flip the board over in a rage when you lose is an implicit rule.

Although implicit rules are a huge part of the gameplay experience for many multiplayer games, they are simply behavioral dynamics that arise between players themselves and therefore cannot be the developer's IP.[32] However, game developers do actively create the operational and constituative

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Hitting Reset: Devising a New Video Game Copyright Regime, 164 U. Pa. L. Rev. 1239, 1254 (2016) (doing the same).

27. *See, e.g.*, Ralph Koster, *Rules Versus Mechanics*, Ralph Koster's Website (Dec 13, 2011), https://www.raphkoster.com/2011/12/13/rules-versus-mechanics [https://perma.cc/2TZA-5Q4V]; T. Lim et al., *Strategies for Effective Digital Games Development and Implementation, in* Cases on Digital Game-Based Learning: Methods, Models, and Strategies 168, 170 (2013).
28. *See* Katie Salen & Eric Zimmerman, Rules of Play: Game Design Fundamentals 130 (2004).
29. *See id.*
30. The apparent misspelling of "constitutive" is used throughout the literature, so I have not changed it here.
31. *See* Salen & Zimmerman, *supra* note 28, at 130.
32. *See* Boyden, *supra* note 22, at 477–78 ("[T]he game designer's expression, in the rules and game equipment, largely ends with the players, who do not convey the game designer's expression further.").

rules that comprise their games. A definition of "rules" that encompasses both these categories is therefore desirable for a legal analysis of whether rules qualify for copyright protection.[33]

Accordingly, "rules" should be defined as *the explicit limitations and affordances imposed on the players of a game by its developer(s)*. This definition is essentially the same as the one Sonali Maitra adopts in her work on game rules,[34] but it specifies that the limitations and affordances are imposed by the developer(s), clarifying that implicit rules are not included. Not only does this definition neatly capture most operational and constituative rules,[35] it is also widely accepted in the game design community[36] and will therefore help bridge the gap of understanding between legal professionals and game developers.

B. *Defining Mechanics*

Determining the precise definition of a game mechanic is more difficult, as game design scholars have reached less agreement on this issue. One game development guide alone identifies at least seven different definitions for a "mechanic,"[37] and informal discussions amongst developers reflect myriad understandings of the distinction between mechanics and rules.[38] However, there is consensus that a distinction exists between rules and mechanics, and nearly all definitions of "mechanics" describe them as being comprised of rules.[39]

Given the general agreement that mechanics are a higher-level component of gameplay than rules, "mechanics" should be defined as *the general game design principles implemented in a game that direct player behavior.* This definition captures game developers' understanding of mechanics as directing players to take certain actions within a game, guiding the overall dynamics of gameplay.[40] To illustrate using a familiar example, shuffling and betting are

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33. For many video games, the distinction between operational rules and constituative rules might collapse regardless, because all the operational rules are displayed virtually and can therefore be reduced to lines of code, which are mathematical and therefore constituative rules.
34. *See* Sonali D. Maitra, *It's How You Play the Game: Why Videogame Rules Are Not Expression Protected by Copyright Law*, 7 LANDSLIDE (Mar./Apr. 2015), https://www.americanbar.org/groups/intellectual_property_law/publications/landslide/2014-15/march-april/its_how_you_play_game_why_videogame_rules_are_not_expression_protected_copyright_law/#:~:text=Copyright%20protects%20only%20the%20particular,%2C%20artistic%2C%20or%20musical%20form.&text=This%20is%20consistent%20with%20early,by%20game%20rules%20were%20uncopyrightable.
35. Note that not every constituative rule of a video game would fall under this definition, because some mathematical constraints on gameplay will be caused by, e.g., hardware limitations and therefore would not be "imposed by the developer."
36. *See* Maitra, *supra* note 34; SALEN & ZIMMERMAN, *supra* note 28, at 125.
37. Lim et al., *supra* note 27, at 170–71.
38. *See* Koster, *supra* note 27.
39. *See id.*; Lim et al., *supra* note 27, at 170–71.
40. Bohyun Kim, *Understanding Gamification*, 51 LIBR. TECH. REPORTS 5, 18 (2015) ("[D]

both "mechanics" of card games on this definition, since they are the general "building blocks" of card game gameplay and represent types of actions that players will be directed to take throughout the game.[41]

However, gamers often assume that *rules* are the general design principles of a game and that mechanics are the more specific components of gameplay.[42] Two factors contribute to this divergence from the viewpoint of developers. First, gamers focus primarily on the aesthetics and dynamics of a game, making the mechanics seem specific and fundamental in comparison.[43] But developers have the exact opposite perspective; as the designers of a game, they only experience its dynamics and aesthetics after calibrating its mechanics,[44] a process which requires them to develop the even more fundamental rules.[45] Second, gamers often associate the word "mechanics" with *input mechanics*, or one's physical ability to control the in-game action using controller inputs.[46] In contrast, developers associate "mechanics" with only the broader design principles comprising a game instead of game controls, a more granular component of game design.

"Rules" and "mechanics" should be defined consistently with the perspective of developers, rather than that of gamers, because developers are the ones who will own any IP rights that exist in these rules or mechanics. Legal analyses of copyright availability for gameplay should therefore use terminology that developers would be familiar with. Additionally, given that this

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esigners think of [mechanics] as various player actions and control mechanisms . . . . [G]ame designers see [dynamics] as design principles for the interaction between game mechanics and players.").

41. *See* Robin Hunicke et al., *MDA: A Formal Approach to Game Design and Game Research* 4 (2004), https://aaai.org/papers/ws04-04-001-mda-a-formal-approach-to-game-design-and-game-research/ ("For example, the mechanics of card games include shuffling, trick-taking and betting — from which dynamics like bluffing can emerge. The mechanics of shooters include weapons, ammunition and spawn points – — which sometimes produce things like camping and sniping . . . . Adjusting the mechanics of a game helps us fine-tune the game's overall dynamics.").
42. *See* Kim, *supra* note 40, at 18 ("Players experience game *mechanics* as the *rules* of a game, while designers think of them as various player actions and control mechanisms.") (emphasis added).
43. *See* Hunicke et al., *supra* note 41, at 2 ("From the player's perspective, aesthetics set the tone, which is born out in observable dynamics and eventually, operable mechanics.").
44. *See id.* ("From the designer's perspective, the mechanics give rise to dynamic system behavior, which in turn leads to particular aesthetic experiences.").
45. *See* Miguel Sicart, *Defining Game Mechanics*, 8 Game Studies 1 (2008) (explaining that the "space of possibility created by the rules" determines how mechanics will manifest themselves within a game).
46. *See, e.g.*, HagenEx, Comment to *What Exactly, Are Mechanical Skills?*, Gamefaqs (Mar. 1, 2013, 4:50 AM), https://gamefaqs.gamespot.com/boards/954437-league-of-legends/65582232; [AUTHOR], I3ambi, Comment to *MECHANICAL SKILL VS GAME KNOWLEDGE*, Dotabuff (June 28, 2016, 1:18 PM), https://www.dotabuff.com/topics/2016-06-28-mechanical-skill-vs-game-knowledge [https://perma.cc/FW7N-P5CA].

Article analyzes the copyrightability of gameplay elements, it would not be helpful to define "mechanics" as input mechanics, which are ultimately descriptions of a player's skill in controlling a game rather than elements of gameplay. Despite the fact that these definitions may feel counterintuitive for some gamers, they are consistent with the understanding of game *developers*, which is more important for this Article's goal of explaining which elements of gameplay should receive copyright protection.

C. *Distinguishing Between Rules and Mechanics*

Although both rules and mechanics direct player behavior according to the definitions above, the two concepts can be distinguished by their level of specificity. A mechanic is a general design principle that guides the overall dynamics of gameplay, like betting in a card game.[47] Each mechanic is in turn comprised of several discrete and specific rules, which result in explicit limitations and affordances for players.[48] The "betting" card game mechanic, for example, is comprised of rules specifying *when* each player can bet, *how much* a player can raise, *how many* bets per hand occur, and so on.

This distinction between rules and mechanics is critical to the legal arguments that follow, but its application to video games is difficult to conceptualize in the abstract. Therefore, it will be helpful to look at concrete examples from the world of contemporary video games that illustrate how this distinction plays out in practice. This Subpart provides two such examples: shooter games and the *Auto Chess/TFT* example introduced above.

1. Shooter Games

First, consider the example of shooter games, in which individuals or teams of players attempt to shoot and eliminate enemies.[49] These games commonly include "spawn points,"[50] or a series of locations where the player's character can reappear after it "dies." The spawn point mechanic itself is comprised of various rules, which determine specifics like where on the game map the character will "respawn" and how many seconds after dying the respawn will occur.[51] Therefore, if characters respawn after ten seconds in shooter game

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47. *See* Hunicke et al., *supra* note 41, at 4.
48. *See* Koster, *supra* note 27 ("[A player's] input is evaluated against specific constraints (physics such as vector upwards, effect of gravity, destination location). I call these rules—specifically, of the constituative sort. They are discrete; you can take out gravity, or add inertia on the landing, etc.").
49. William L. Hosch, *Electronic Shooter Game*, Britannica (Apr. 16, 2009), https://www.britannica.com/topic/electronic-shooter-game [https://perma.cc/389V-MFCA] (last visited Feb. 24, 2024).
50. *See* Hunicke et al., *supra* note 41, at 4.
51. *See Spawn Points*, Core Academy, https://learn.coregames.com/lessons/spawn-points [https://perma.cc/5R7F-BJ6U].

A and after five seconds in shooter game B, the two games have incorporated the same mechanic using different rules.

By implementing different limitations and affordances that concern the same game design principle, each shooter game can incorporate a unique version of the same spawn point mechanic.[52] In fact, this example shows that there can be a vast number of ways to implement the same mechanic using different rules. The spawn point mechanic would still be the same mechanic no matter how many seconds were used as the respawn time, meaning it has a theoretically infinite number of variations. However, players are unlikely to enjoy a shooter game with a respawn time that is not carefully calibrated.[53] Thus, the possibilities for implementing a mechanic are heavily constrained by practical limitations on what players would find "fun," but not by theoretical limitations.[54]

2. Auto Chess and TFT

The distinction between rules and mechanics can also be applied to the more complex example of the *Auto Chess* saga. *TFT* and *Auto Chess* include many similar features, such as player health points, items, expendable currency (gold), and a "shop" for purchasing more playable units.[55] These are all general game design principles and are therefore the shared *mechanics* of the two games. The games also share many *rules*; for example, both give players 100 starting health points and present players with five units in the shop each round.[56] Note that these rules are each related to a game mechanic (the

52. *See* van Roessel & Katzenbach, *supra* note 13, at 414 (explaining that it is "common practice" for games within a genre to reuse mechanics, but that these games "can still be perceived as very different" by modifying how the mechanic is implemented).
53. David T. Dwyer & Eric M. Finn, *Predicting the Perceived Quality of a First Person Shooter Game: the Team Fortress 2 T-Model*, Digital WPI (Mar. 12, 2013) (B.S. project MLC-LG12, Worcester Polytechnic Institute), https://digital.wpi.edu/downloads/mg74qn525?locale=en ("The respawn time . . . also needed to be chosen to prevent the players from becoming disinterested by waiting to respawn for too long while still being long enough to prevent a stalemate situation . . . .").
54. For an additional example of how mechanics may be constrained by what players find "fun," see Hunicke et al., *supra* note 41, at 3–4 (giving examples of how the mechanics of *Monopoly* could be modified to change gameplay dynamics).
55. *See, e.g.*, Kripparrian, *How To Play Dota 2: Auto Chess*, YouTube (Jan. 24, 2019), https://youtu.be/mo6_YxgDR64; Mobalytics TFT, *COMPLETE Beginner's Guide to Teamfight Tactics Set 8 How To Play TFT!*, YouTube (Dec. 7, 2022), https://youtu.be/LfUvYwPLPHU. These gameplay videos also show that *TFT* has implemented several unique mechanics, such as a "carousel" for selecting units and items and an "augment" system for improving a player's strength, and their associated rules. Note that all the gameplay features described here and in these videos are subject to change by the games' developers at any time, so they may not exist as described at the time of reading. The illustrative value of the examples, however, will remain unaffected by any changes to the two games.
56. *See* sources cited *supra* note 55.

"health points" and "shop" mechanics, respectively), but establish specific limitations and affordances that determine how the more general mechanics are calibrated for play.

Despite the the two games sharing many rules and mechanics, the gameplay of *TFT* is notably different from *Auto Chess* because Riot Games modified several mechanics it copied from *Auto Chess* using different rules.[57] For example, although both games use a "health points" mechanic, the formula for how players lose health throughout a match is different in *TFT* than in the original *Auto Chess*.[58] The comparison between *Auto Chess and TFT* again illustrates that mechanics represent a higher level of generality than rules do: one developer can "copy" a mechanic from another but implement it using different rules.

II. Copyright Protection for Rules and Mechanics

Now that rules and mechanics have been defined as separate concepts and the distinction between the two has been illustrated, this Article will proceed to investigate whether copyright protection is available for one or both aspects of video games. The general subject matter of copyright is governed by § 102 of the Copyright Act of 1976.[59] § 102(a) sets out a broad scope for subject matter eligibility, stating that "[c]opyright protection subsists . . . in original works of authorship fixed in any tangible medium of expression . . . ."[60] This scope is then limited by § 102(b), which says that copyright protection does not extend to "any idea, procedure, process, system, method of operation, concept, principle, or discovery . . . explained, illustrated, or embodied in such work."[61]

Despite the difficulty in defining game mechanics, it is relatively straightforward to conclude they are not eligible for copyright protection because of § 102(b). As we have seen, mechanics should be thought of as general game design principles that can be implemented using many different sets of rules.[62] Because of this extreme generality, mechanics must be abstract "ideas" which are not copyrightable.[63] However, according to the definitions proposed herein, rules are distinct from, and more specific than, mechanics. They may therefore qualify for copyright protection even if their associated mechanics are too abstract.

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57. *See* sources cited *supra* note 55.
58. *See* Kripparrian, *supra* note 55; *Player Damage Formula*, LoLCHESS.GG, https://lolchess.gg/guide/damage?hl=en-US [https://perma.cc/BE84-5BY5] (last visited Feb. 19, 2024).
59. *See* 17 U.S.C. § 102.
60. *See id.*
61. *See id.*
62. *See supra* Part I.C.1 (discussing the overlap between Autochess and TFT).
63. *See* Atari, Inc. v. N. Am. Philips Consumer Elec. Corp., 672 F. 2d 607, 614–15 (7th Cir. 1982) (explaining that copyright can only protect particular expressions of an abstract idea, not the idea itself).

This Part investigates the eligibility of video game rules for copyright and the scope of such protection. It begins with an overview of the doctrine relevant to video game rules, which reveals that video game rules are in fact eligible to receive "thin" copyright protection so long as they do not fall under a § 102(b) exclusion to eligibility. Next, this Part analyzes those exclusions to see if any offer a principled reason to categorically exclude video game rules from copyrightability. It concludes that most game rules are not covered by § 102(b) and are therefore copyrightable, with the exception of rules pertaining directly to how users control a game, which are uncopyrightable methods of operation.

A. *Overview of Relevant Copyright Doctrine*

The hybrid nature of modern video games makes them particularly difficult to situate within the landscape of copyright doctrine.[64] They are a unique blend of literal and non-literal elements; combining the audiovisual experience of a film or television show with computer software and the interactive structure of traditional games.[65] For this reason, the copyright law governing audiovisual works, traditional tabletop games, and computer programs should all be investigated to see whether video game rules are eligible for copyright protection.

1. Audiovisual Works

Audiovisual works—films, television, and the like—are among the "original works of authorship" which are specifically enumerated as protected in § 102(a).[66] While audiovisiual works qualify for copyright protection by definition, as for all works, they may include some elements that are excluded from protection under § 102(b). For traditional audiovisual works, while some of their story elements may be excluded as unprotectible ideas,[67] their original content will otherwise straightforwardly be copyrightable, as sounds and visuals are paradigm examples of protectible expression.[68]

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64. *See* John Kuehl, *Video Games and Intellectual Property: Similarities, Differences, and a New Approach to Protection*, 7 Cybaris 314, 316–19 (2016) (explaining the challenges of fitting video games "within the greater copyright ecosystem"); Boyden, *supra* note 22, at 439 ("[T]he elusiveness of games poses problems for intellectual property law . . . . Games seem to straddle the boundaries between copyright and patent, between author, performer, and reader, and between protected and unprotected material.").
65. *See* Kuehl, *supra* note 64, at 317–18 (discussing the overlap between video games, computer software, and traditional forms of entertainment).
66. 17 U.S.C. § 102(a)(6).
67. *See* Meville B. Nimmer & David Nimmer, 4 Nimmer on Copyright § 13.03[A][1][b] (2023) (discussing the disagreements over the level of abstractness at which a work's plot changes from protectable expression to an "idea" excluded by § 102(b)).
68. *See N. Am. Philips*, 672 F.2d at 617 ("the particular form in which [an audiovisual work] is expressed (shapes, sizes, colors, sequences, arrangements, and sounds) provides something 'new or additional over the idea.'") (citing Goodson-Todman Enterprises, Ltd. v. Kellogg Co., 513 F.2d 913 (9th Cir. 1975)).

The comprehensive copyrightability of traditional audiovisual works—a medium with many similarities to video games—suggests that video games should also be copyrightable. Indeed, it is now well-established that video games are "'audiovisual works' that qualify for copyright protection" under § 102(a).[69] Much less certain, however, is the scope of that protection. To address this issue, we must look for insights from the copyright doctrine governing two other categories related to video games: tabletop games and computer programs.[70]

2. Tabletop Games

Although tabletop games and video games share much in common, the law of tabletop games suffers from a dearth of analysis concerning the copyrightability of rules, making it surprisingly unhelpful for determining how video game rules should be treated.

Courts have historically allowed several visual elements of tabletop games, like the design of a game board or the pictures on a playing card, to be copyrighted.[71] However, for almost a century, courts have consistently held that tabletop game rules are not copyrightable without any clear accompanying rationale.[72] The first case to address this issue was *Whist Club v. Foster*, a 1929 opinion from the Southern District of New York that was one paragraph in its entirety.[73] The *Whist Club* court asserted that "[i]n the conventional laws or rules of a game . . . there can be no literary property susceptible of copyright," without providing any citations or reasoning to support this claim.[74] Later cases regarding tabletop game rules added little additional analysis.[75] Because the exclusion of these rules from copyright is almost entirely unsupported, it does not justify any conclusions regarding how courts should treat rules in the notably more advanced context of video games.[76]

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69. *See* Atari Games Corp. v. Oman, 888 F.2d 878, 882 (D.C. Cir. 1989); *see also N. Am. Philips*, 672 F.2d at 615.
70. *See supra* note 65 and accompanying text; *see also* Boyden, *supra* note 22, at 450 (explaining that video games and board games share some common elements like rules, space, players, and goals).
71. 1 Nimmer & Nimmer, *supra* note 67, § 2A.14[C][1].
72. Boyden, *supra* note 22, at 442 ("For nearly a century, courts have uniformly held that games are not copyrightable. Courts have been considerably less forthcoming, however, with reasons for this doctrine.").
73. Whist Club v. Foster, 42 F.2d 782, 782 (S.D.N.Y. 1929).
74. *Id.*
75. Boyden, *supra* note 22, at 444.
76. 1 Nimmer & Nimmer, *supra* note 67 ("[T]he blanket rule of exclusion for games must be rethought as must so much else in the copyright arena insofar as it applies to works of technology heralded by the computer revolution.").

3. Computer Programs

As video games blend the expressive elements of traditional games and audiovisual works with modern computer technology, we can instead rely on the sophisticated copyright doctrine applied to computer programs rather than the underdeveloped doctrine of tabletop games for guidance.[77] The Supreme Court has explained that computer programs are only entitled to "thin" protection, as they are expressive, but to a lesser extent than the traditional artistic works that copyright is primarily meant to protect.[78] Thin copyrights are not infringed "unless the [original and infringing] works are virtually identical."[79] Virtual identity exists when, after "filtering out unprotectable elements" of the works at issue, the remaining aspects of the works are virtually the same "as a whole."[80] This "virtual identity" test for infringement is used instead of the broader and more typical "substantial similarity" test in cases where a work combines both copyrightable and uncopyrightable elements.[81]

Rules in video games are perfect candidates for thin copyright protection. They are the result of significant creative effort and are often the very "heart" of the creative expression in a video game.[82] Because rules are so critical to the uniqueness of a game and often represent the lion's share of a developer's creative efforts, it seems video game rules must qualify for at least some level of copyright protection.[83] At the same time, video game rules are ultimately embodied by lines of code in a computer program,[84] and are therefore too dissimilar from traditional artistic works to receive the broad copyright typically

77. *See id.* § 2A.14[C][3] ("Whether a rival "game" infringes must be gauged under the far more sophisticated tests that have developed in the context of computer software than under a callow invocation of labels.").
78. *See* Google LLC v. Oracle Am., Inc., 141 S. Ct. 1183, 1197–98 (2021) (explaining that "where copyrightable material is bound up with uncopyrightable material," such as in computer programs, a weaker copyright should apply so that the right does not "grant anyone more economic power than is necessary to achieve the incentive to create.").
79. *Id.* (quoting Experian Info. Sol., Inc. v. Nationwide Mktg. Servs. Inc., 893 F.3d 1176, 1186 (9th Cir. 2018)).
80. Apple Comp., Inc. v. Microsoft Corp., 35 F.3d 1435, 1447 (9th Cir. 1994).
81. *Google LLC*, 141 S. Ct. at 1198 ("[I]n some circumstances, say, where copyrightable material is bound up with uncopyrightable material, copyright protection is 'thin.'"); *Apple Comp.*, 35 F.3d 1435 (applying thin protection to Apple's Macintosh GUI); Ets-Hokin v. Skyy Spirits, Inc., 323 F.3d 763 (9th Cir. 2003) (applying thin protection to a photograph of a Skyy vodka bottle). Thin protection has even already been applied in the context of video games. *See generally* Frybarger v. Int'l Bus. Machines Corp., 812 F.2d 525, 530 (9th Cir. 1987).
82. *See infra* notes 92–94 and accompanying text; *see also* Kevin P. Hales, *A Trivial Pursuit: Scrabbling for a Board Game Copyright Rationale*, 22 Seton Hall J. Sports & Ent. L. 241, 242 (2012) ("[T]here is no clear reason why the expressive content in the 'heart' of a game is not protectable, but it is not, and a game manufacturer could indeed copy the heart of the game to its heart's content."); Hemnes, *supra* note 24, at 177.
83. *See supra* note 81 and accompanying text.
84. *See* Boyden, *supra* note 22.

afforded to those works.[85] Due to their dual expressive and technical nature, the thin copyright protection generally granted to computer programs is a natural fit for the protection of video game rules as well.

B. *§ 102(b) Exclusions Applied to Rules*

Even though video game rules appear eligible for the thin copyright protection granted to computer programs, they cannot receive even this narrow form of protection if they fall under one of the § 102(b) exclusions. Thus, this Subpart analyzes each of the § 102(b) exclusions to see if video game rules should categorically be deemed unprotectable, drawing on relevant video game case law when applicable. These exclusions can be grouped into two categories: exclusions for things that are too abstract or general (ideas, concepts, and principles) and exclusions for things that are of a functional nature (procedures, processes, systems, methods of operation, and discoveries).[86] This Subpart concludes that, although some rules are captured by the "method of operation" exclusion, most rules do not fall under any exclusion and therefore qualify for thin copyright protection.[87]

1. Exclusions for Abstractness

Courts have excluded ideas, concepts, and principles from copyright because they are believed to be "too general or abstract to qualify as expression" deserving of copyright protection.[88] This distinction between unprotectable

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85. *See supra* notes 78–80 and accompanying text.

86. *See* Pamela Samuelson, *Why Copyright Law Excludes Systems and Processes from the Scope of Its Protection*, 85 Tex. L. Rev. 1921, 1951 (2007) ("Three of § 102(b)'s exclusions—ideas, concepts, and principles—pertain to high level abstractions, while the other five—procedures, processes, systems, methods of operation, and discoveries—refer to more complex, detailed, and functional information innovations . . . ."); *see also* Boyden, *supra* note 22, at 467–68 (using the same groupings in a discussion of the copyrightability of rules).

87. There is some debate over whether § 102(b) is an exhaustive or merely illustrative list of aspects of a work that are not copyrightable. Therefore, it is theoretically possible that rules are properly excluded from protection even if they do not fall under § 102(b). *See* Samuelson, *supra* note 86, at 1942–43 ("It is somewhat unclear whether these cases should be understood as having been subsumed into the exclusions set forth in § 102(b), or whether the exclusion of games, rules, and tactics lies outside of the § 102(b) exclusions such that § 102(b) should be understood as illustrative or exhaustive as to aspects of protected works that copyright excludes from the scope of its protection . . . ."). However, the game-related cases that Samuelson cites as "support" for § 102(b) being illustrative rather than exhaustive all seem to reference one of § 102(b)'s exclusions rather specifically, see *id.* at 1943n. 148,, further supporting, if anything, the exhaustive interpretation. Regardless, this ambiguity can be set aside as it does not appear a court has ever found rules uncopyrightable for reasons other than those encompassed by § 102(b).

88. *See* Boyden, *supra* note 22, at 446. It is debatable whether these three words—ideas, concepts, and principles—are meant to be synonymous. However, if the "concept"

ideas and the protectable "expression" of those ideas, commonly referred to as the "idea-expression dichotomy," is one of the most foundational principles of copyright law.[89] Although its exact contours are rather vague, the idea-expression dichotomy serves an important limiting purpose in copyright doctrine.[90] It prevents individuals from inhibiting artistic and technological progress by copyrighting general concepts and excluding them from the public domain.[91]

Video game rules, as defined in this Article, do not categorically fall on the "idea" side of this dichotomy. As the shooter game and *Auto Chess* examples above show, many rules are incredibly specific and can vary greatly even between similar games using the same mechanics.[92] Specificity and the availability of variation are exactly the characteristics courts rely on to determine that elements of a work are not too abstract for copyright protection.[93] And the mere organization of these otherwise creative expressions into a computer-based game does not detract from their creative nature.[94] Thus, concerns that video game rules are too general or abstract to be expressive are unfounded.

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and "principle" exclusions are to mean something distinct from the "idea" exclusion, it would have to be something related to excluding mathematical principles or laws of nature from copyright. *See id.* at 467–68. This would certainly not exclude game rules, which are created for entertainment and are not meant to describe truths about the physical world. *See id.* at 468. Thus, we can treat all three of these words as synonymous without overlooking any valid reasons why rules might not be copyrightable.

89. *See* Sheldon v. Metro-Goldwyn Pictures Corp., 81 F.2d 49, 54 (2nd Cir. 1936) ("[O]thers may 'copy' the 'theme,' or 'ideas,' or the like, of a work, though not its 'expression.'"); Edward Samuels, *The Idea-Expression Dichotomy in Copyright Law*, 56 Tenn. L. Rev. 321, 322–23 (1989).
90. *See* Samuels, *supra* note 89, at 322–24.
91. Robert A. Gorman, *Fact or Fancy? The Implications for Copyright*, 29 J. Copyright Soc'y 560, 561 (1982) ("All of these doctrines mitigate the rigors of what might otherwise be an overreaching monopolistic control by the copyright owner, thus promoting society's interest in enriching the public domain.").
92. *See supra* Part I.C; *see also* Boyden, *supra* note 22, at 446–47 (arguing that the rule sets for games are highly detailed and specific).
93. *See, e.g.*, Concrete Machinery Co., Inc. v. Classic Lawn Ornaments, Inc., 843 F.2d 600, 606–07 (1st Cir. 1988) (explaining that an aspect of a work is less likely to receive copyright protection if there are few ways it can be expressed and that, conversely, more "particularized expression" receives broader copyright protection); Midway Mfg. Co. v. Bandai-America, Inc., 546 F. Supp. 125, 148 (D.N.J. 1982) (explaining that the "idea" of a work cannot involve "great detail"); Tetris Holding, LLC v. Xio Interactive, Inc., 863 F. Supp. 2d 394, 411 (D.N.J. 2012) (finding the shapes of the pieces in *Tetris* were not an abstract idea because there were "nearly limitless" options for the shapes that could be used in similar puzzle games).
94. *See* 1 Nimmer & Nimmer, *supra* note 67, § 2A.14[C][3] (2023) ("An original history book about ancient Greece is unquestionably subject to copyright protection. But as formulated into a computer product, the same expressive content may organize itself into the 'game' of fighting the battle of Marathon or navigating around various isles of the Aegean (or the Acropolis itself). Should those forms sacrifice protection simply because they are now formulated as 'rules of the game.' Plainly, such a resolution would

Some courts have nevertheless cited the abstractness of game "rules" as their reason for deeming them uncopyrightable.[95] But these courts did not have the proper distinction between rules and mechanics in mind and therefore likely conflated the two categories. Mechanics should indeed be considered abstract ideas, but courts are yet to identify rules as a separate, more specific aspect of game design for which the same abstractness concerns do not apply.

Cases addressing the abstractness of video game rules have, in fact, implicitly recognized that many rules are protectable although the associated mechanics are not. They have, however, obscured this recognition by mischaracterizing those rules as "audiovisual elements" of a game. The first of these cases is *Atari, Inc. v. North American Philips Consumer Electronics Corp.*, in which the creators of *PAC-MAN* sued the creators of a similar maze-chase game for copyright infringement.[96] The court held that *PAC-MAN*'s gameplay was "primarily" comprised of unprotectible ideas, but that its "audio component and the concrete details of [its] visual presentation" were copyrightable expression.[97] The court included the maze's shape and the use of "wraparound" tunnel exits, two elements of the space the player's character must navigate to collect points and avoid enemies, as part of what it considered the game's expressive visual details.[98]

The shape and navigability of the playing space, however, provide clear limitations and affordances to players of *PAC-MAN*. The size of the maze, for example, determines how far a player must travel to earn more points and complete a level.[99] The shape of the maze and the existence of "wraparound" exits, which allow the player to move from one side of the screen to another, likewise limit how the player can move to collect points and offer the player certain escape routes from enemies.[100] Therefore, these "visual details" both fit squarely within the proposed definition of game rules. Meanwhile, the ideas underlying *PAC-MAN* that the court wished to exclude from copyright, such as the concepts of navigating a maze and avoiding collisions with enemies, are all general game design principles which fit the proposed definition of mechanics.[101] Likely without realizing it, the *Atari* court has therefore already deemed

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emerge only from a category error.").

95. Boyden, *supra* note 22, at 445 (citing several cases referring to rules as uncopyrightable ideas); *see also Tetris Holding*, 863 F. Supp. 2d at 404 ("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.").
96. Atari, Inc. v. N. Am. Philips Consumer Elec. Corp., 672 F.2d 607 (7th Cir. 1982).
97. *Id.* at 617.
98. *Id.* at 610–11, 617.
99. *Id.* at 610–11.
100. *Id.*
101. *See 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

some rules specific and expressive enough to be copyrightable while excluding their related mechanics.

A more recent case concerning video game rules, *Tetris Holding, LLC v. Xio Interactive, Inc.*,[102] similarly applied an implicit version of the distinction between rules and mechanics. This case involved a mobile game called *Mino*, created by developer Xio to be a nearly exact copy of the game *Tetris*.[103] Xio argued that it had not committed copyright infringement because it only copied unprotectible elements of *Tetris*, including its rules, but the court nevertheless found *Mino* infringing.[104] Although the court claimed to agree with Xio that game rules are not copyrightable, calling them abstract ideas, it still found certain elements of *Tetris* that Xio copied, like the shape of the puzzle pieces, the dimensions of the game board, and the rotation of the pieces to be protectible expression.[105]

Again, all these expressive elements provide limitations and affordances to the player and therefore should be considered rules. The shape and manner of rotation for the pieces determine how the player may fit them together, while the dimensions of the game board determine how a player may connect pieces horizontally to earn points and how high pieces can reach vertically before the player loses.[106] The abstract ideas behind *Tetris* that the court excluded from copyright, like the ideas of falling pieces, fitting pieces together, and earning points for filling a line of the game board,[107] are only the *mechanics* of the game, not the more specific and expressive rules. *Atari, Inc.* and *Tetris Holding* therefore both show that, when courts have claimed to exclude game rules from copyright for abstractness, they have in fact been excluding mechanics and setting aside rules as copyrightable expressions.

2. Exclusions for Functional Nature

Although video game rules do not truly fall under one of the abstractness exclusions from copyright, the question remains as to whether rules are procedures, processes, systems, methods of operation, or discoveries and therefore

about the maze. Under certain conditions, the central figure may temporarily become empowered to chase and overtake the opponents, thereby scoring bonus points.").

102. *See generally Tetris Holding*, 863 F. Supp. 2d.

103. *Id.* at 397 ("Xio was more than inspired by Tetris as Xio readily admits that its game was copied from Tetris and was intended to be its version of Tetris.").

104. *Id.* at 396.

105. *Id.* at 404–13.

106. *See id.* at 409 ("While a piece is falling, the user rotates it in order to fit it in with the accumulated pieces. The object of the puzzle is to fill all spaces along a horizontal line. If that is accomplished, the line is erased, points are earned, and more of the game board is available for play. But if the pieces accumulate and reach the top of the screen, then the game is over. These then are the general, abstract ideas underlying Tetris and cannot be protected by copyright nor can expressive elements that are inseparable from them.").

107. *Id.*

fall under one of § 102(b)'s "functional" exclusions. Similar to the abstractness exclusions, the exact content of these functional exclusions is difficult to determine, but they nevertheless create an important and practical limitation on the scope of copyright. The functional exclusions serve to draw the line between copyrightable expression and useful practices, which are not copyrightable but are possibly patent eligible.[108]

It appears that only one case, *Spry Fox LLC v. LOLApps Inc.* from the Western District of Washington, has explicitly claimed that video game rules might not be copyrightable "because they are functional," and it unfortunately provides little guidance on the issue for several reasons.[109] First, the procedural background of the case was a ruling on a motion to dismiss, meaning the court did not need to definitively decide whether the rules at issue were functional—it only needed to decide whether allegations of infringement were plausible.[110] The court's discussion suggesting that some rules are functional thus should not be treated as conclusive.[111] Second, it argued that game rules involve "functional considerations" but only cited *Apple Computer, Inc. v. Microsoft Corp.*, a case about graphical user interfaces (GUIs), to support this claim.[112] However, because GUIs are much more utilitarian in nature than video games, *Apple Computer* is disanalogous and provides little support for the court's claim.[113] Finally, the court never suggested which of the functional exclusions it was envisioning video game rules to fall under.[114] Therefore, it is valuable to independently analyze each of the functional exclusions to see if a more rigorous argument for excluding video game rules from copyright might exist.

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108. Boyden, *supra* note 22, at 466–67 ("The exceptions listed in § 102(b) fall into at least two general categories: discerning between the specific expression of an idea and more abstract and general descriptions of the same . . . and distinguishing between copyrightable expression and useful practices (i.e., procedures, processes, systems, methods of operation, and discoveries). In other words, § 102(b) codifies . . . the boundary between copyrightable and patentable subject matter.").
109. Spry Fox LLC v. LOLApps Inc., No. 2:12-cv-00147-RAJ, 2012 WL 5290158, at *6 (W.D. Wash. Sept. 18, 2012).
110. *Id.* at *6–8.
111. *Id.* at *6 ("Although the court need not decide the issue in this motion, it appears that some elements of Triple Town are not protectable because they are functional . . . . For example, Spry Fox's choice of a six-by-six game grid is not likely an expressive choice.").
112. Apple Comput., Inc. v. Microsoft Corp., 35 F.3d 1435 (9th Cir. 1994).
113. GUIs are digital computer interfaces designed to convey relevant information to users and help them navigate the various actions they can take. *See* Jamie Juviler, *What Is GUI? Graphical User Interfaces, Explained*, HubSpot (Aug. 30, 2023), https://blog.hubspot.com/website/what-is-gui#:~:text=A%20graphical%20user%20interface%20(GUI,actions%20that%20they%20can%20take. [https://perma.cc/5HTK-CC4S]. On the other hand, video games are meant for a mixture of entertainment and social purposes. *See* Salen & Zimmerman, *supra* note 28, at 299 (noting that rules facilitate the experience of pleasure, narrative, or social interaction while playing a game).
114. *Spry Fox LLC*, 2012 WL 5290158, at *6–8.

The "discovery" exclusion can be dismissed right away as being inapplicable to game rules, since they are unrelated to facts about the natural world.[115] But the "procedure," "process," and "method of operation" exclusions, which generally refer to a series of steps for achieving a predetermined result,[116] pose a more difficult question. Courts have explained that the procedures, processes, and methods of operation contemplated by § 102(b) give precise instructions for how to do things like operate machinery[117] or develop new skills.[118] Such instructions ensure that those who follow the outlined steps will reach a specific end goal.[119]

Since game rules constrain and direct player behavior, it may at first seem they function as "steps" for players to follow and would therefore fall under one of these exclusions. However, most video game rules are nothing like the sorts of instructions contemplated by the functional exclusions. The constraints imposed by rules do not determine precisely what will occur during gameplay, nor do they describe a process for achieving a particular end goal.[120] Instead, they serve as more general constraints on the players of a video game, which still allow players the flexibility to follow a different set of "steps" on each playthrough.[121]

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115. Boyden, *supra* note 22, at 468. ("[U]nder either of the possible definitions of 'discovery,' it is clear that games are not discoveries.").
116. *See id.* at 469–70; Samuelson, *supra* note 86, at 1935, n. 89 ("Process and procedure also overlap in meaning with the 'method' which the Court in *Baker* used repeatedly . . . . *Baker* gave examples of processes and procedures . . . the composition and use of medicines, the mixture and application of colors for painting or dying, and modes of drawing lines to create the effect of depth perspective.").
117. *See* Lotus Dev. Corp. v. Borland Int'l, Inc., 49 F.3d 807, 815 (1st Cir. 1995) ("We think that 'method of operation,' as that term is used in § 102(b), refers to the means by which a person operates something, whether it be a car, a food processor, or a computer.").
118. Situation Mgmt. Sys. v. ASP Consulting Grp., 535 F. Supp. 2d 231, 238 (D. Mass. 2008), *vacated and remanded on other grounds sub nom.* Situation Mgmt. Sys., Inc. v. ASP. Consulting LLC, 560 F.3d 53 (1st Cir. 2009) ("Works that offer techniques for developing a skill or reaching a goal teach an uncopyrightable process.").
119. *See id.* at 239 ("[The exercises were] simply a process for achieving increased consciousness. Such processes, even if original, cannot be protected by copyright.") (quoting Palmer v. Braun, 287 F.3d 1325, 1334 (11th Cir. 2002)); *see also* Baker v. Selden, 101 U.S. 99, 102 (1879) (explaining that the process for developing a new medicine would not be copyrightable).
120. *See* Boyden, *supra* note 22, at 470 ("[T]he rules of a game are not instructions for play in the same way that recipes are instructions for making a cake; they do not fully specify what occurs during play. Game rules are thus not a "process" or "procedure" for carrying on a game."); Hunicke et al., *supra* note 41, at 2 ("The string of events that occur during gameplay and the outcome of those events are unknown at the time the product is finished.").
121. *See* Boyden, *supra* note 22, at 470 (using the example of *Scrabble* to show that rules only create "broad constraints").

For example, one rule of both *Auto Chess* and *TFT* is that five units always appear in a player's "shop."[122] This rule is neither a step for a player to follow, nor is it determinative of a specific result.[123] Instead, a player may purchase any combination of the five units presented that she can afford, with each purchasing decision resulting in a different outcome in the game overall. Thus, the "five units" rule is simply a constraint on the number of choices a player has for strengthening her team; there is nothing a player can do to "follow" the rule and no specific end goal it guarantees a player to reach. This example illustrates that many game rules are not like the instructions that courts exclude from copyright and therefore should not be considered too "functional" for copyright protection.

There are some game rules, however, that are more akin to instructions and would fall under the functional exclusions. Courts have previously found that "the means by which users control and operate" a computer program are uncopyrightable "methods of operation."[124] This means that some rules, which relate directly to how players control a video game, would not be copyrightable. However, this only excludes a small subset of rules that are essentially nothing more than key bindings, like "press X to jump" or "left click to grab." Rules like the "five units" rule above have nothing to do with how the user operates a video game and therefore are not "methods of operation."

Finally, we must consider how the "system" exclusion, which is possibly the most difficult of all to define, applies to game rules. It appears to originate from the famous Supreme Court case *Baker v. Selden*,[125] in which the Court considered whether copyright protection should extend to a bookkeeping form depicted in a copyrighted book.[126] The Court repeatedly refers to this form, which was essentially a spreadsheet with various labeled columns to be filled in, as a "system."[127] Since *Baker* is still good law and the notes to § 102(b) of the Copyright Act say it was simply meant to encode the common law,[128] we

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122. *See supra* note 56 and accompanying text.
123. It could be argued that play or enjoyment of the game itself is a "result" of such a rule. However, such intangible and self-referential "results" are unlikely to be contemplated by the functional exclusions since they are meant to encompass only patentable subject matter. *See supra* note 108 and accompanying text. For a process or method to be patentable, it generally must have a concrete result independent of the process itself. *See* Bayer AG v. Housey Pharms., Inc., 340 F.3d 1367, 1376–77 (Fed. Cir. 2003) (the result of a process patent is the manufacture of a "physical article"); Boyden, *supra* note 22, at 470 n. 187 ("[T]he end-state of the process must be defined in terms of some result external to the game in order for it to be a patentable process.").
124. Lotus Dev. Corp. v. Borland Int'l, Inc., 49 F.3d 807, 815 (1st Cir. 1995).
125. *See* Samuelson, *supra* note 86, at 1928 ("*Baker* should be understood to have contributed the system and other useful art exclusions to § 102(b) . . . .").
126. *Id.* at 1931 ("The Court explained why bookkeeping systems depicted in copyrighted works should not be within the scope of copyright protection . . . .").
127. Baker v. Selden, 101 U.S. 99, 100–02 (1879).
128. H.R. Rep. No. 94–1476, at 57 (1976) ("Section 102(b) in no way enlarges or contracts

can infer that the system exclusion at least encompasses blank forms like the one at issue in *Baker*. However, in the century-plus since *Baker*, there has been no consensus on what exactly the system exclusion adds to § 102(b) more generally.[129] While surveying every opinion on the matter is beyond the scope of this Article, three of the most relevant views are discussed below.

The most recognized view is that the system exclusion boils down to a mechanism that reinforces the boundary between the copyright and patent domains.[130] It does so by excluding works with a practical "function," like the bookkeeping form in *Baker*, while allowing those which have no function beyond conveying entertaining, educational, or aesthetic information to be copyrighted.[131] Note, however, that this conception of the system exclusion does not draw an exact boundary between copyrightable works and patent eligible subject matter, because not everything "functional" will necessarily be patentable.[132]

A better way to understand this view of the system exclusion is as an inquiry into whether a work fits better within the copyright domain, which encompasses works intended to convey generally expressive content, or the patent domain, which encompasses works with any other function.[133] Video game rules only serve to convey information about what a player may do while playing a game, which is ultimately an experience engaged in for entertainment, education, or aesthetic value.[134] They have no function outside of the

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the scope of copyright protection under the present law. Its purpose is to restate, in the context of the new single Federal system of copyright, that the basic dichotomy between expression and idea remains unchanged.").

129. For an overview of the history of § 102(b) and the lack of consensus post-*Baker*, see generally Samuelson, *supra* note 86.

130. Boyden, *supra* note 22, at 471. Although Samuelson does not explicitly state how she would define the system exclusion, it appears her view falls within this camp. *See* Samuelson, *supra* note 86, at 1973 (explaining that the intention of *Baker* was to "ensure that copyright protection . . . is not used to get patent-like protection for technical innovations that might qualify for, but have not met, patent standards.").

131. Boyden, *supra* note 22, at 471.

132. Patent eligible subject matter is limited to useful processes, machines, manufactures, composition of matter, or any new and useful improvements thereof. 35 U.S.C. § 101. Especially because the Supreme Court has begun to interpret this subject matter eligibility requirement more strictly in recent years, not everything with a utilitarian function will necessarily be patentable. *See* Genetic Techs. Ltd. v. Merial LLC, 818 F.3d 1369, 1380 (Fed. Cir. 2016) ("Utility is not the test for patent-eligible subject matter."); *see also* Alice Corp. Pty. Ltd. v. CLS Bank Intern., 573 U.S. 208(2014) (discussing the proper standard for exclusion under § 101).

133. *See* Boyden, *supra* note 22, at 471 (explaining that copyright scholars have conceptualized § 102(b) as creating a "dividing line" between the copyright domain, which concerns works that have no function other than to convey information "in the form of education, entertainment, or aesthetics," and the patent domain, which concern works with other functions; works in the latter domain are deemed uncopyrightable).

134. *See* Salen & Zimmerman, *supra* note 28, at 299 (noting that games are engaged in for the

construct of game itself, which is inappropriate for the patent domain intended to capture real-world utility.[135] There are, however, many creative possibilities for implementing rules, each of which will impact the entertainment and aesthetic value of a game in different ways.[136] Therefore, game rules *do* involve creative expression, as courts have already recognized.[137] Video game rules are therefore a much better fit for copyright protection than patent protection and should not be excluded on this conception of the system exclusion.

A second important view of the system exclusion comes from law professor and copyright scholar Bruce Boyden, who defines "systems" as uncopyrightable "material for which the *user* of the work provided the essential content, not its author."[138] He argues that games are uncopyrightable systems because players, rather than game developers, provide their "critical information or creative inputs."[139] However, what Boyden means by "games" here is the physical act of playing a game, not the game *rules*.[140] His view on rules is that they are one of "the game's constituent elements," which are created entirely by the developer and "may be copyrightable" even if gameplay is not.[141] Thus, he ultimately believes that, while gameplay as a whole is a system, rules are constituent elements of gameplay that are *not* systems themselves.[142]

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experience of pleasure, narrative, or social interaction).

135. *See* Boyden, *supra* note 22, at 470 n. 189 ("The game would then be a process for achieving an arbitrary result defined by the process itself. As both of these examples show, the end-state of the process must be defined in terms of some result external to the game in order for it to be a patentable process.").
136. *See supra* note 82 and accompanying text.
137. *See* discussion *supra* Part II.A.1.
138. Boyden, *supra* note 22, at 465.
139. *Id.* at 478–79 ("Systems or procedures for which the user himself supplies the critical informational or creative inputs are uncopyrightable—for example, games . . . .").
140. *Id.* at 478 ("[G]ame play is not expressive. A game session is therefore not a "performance" of the expression in the game, public or private; it is outside the scope of copyright altogether."). At least one other scholar seemingly shares my interpretation of Boyden as suggesting that the act of gameplay, rather than the game's ruleset itself, is a "system." *See* Kyle Coogan, *Let's Play: A Walkthrough of Quarter-Century-Old Copyright Precedent as Applied to Modern Video Games*, 28 Fordham Intell. Prop. Media & Ent. L.J. 381, 405 (2018).
141. Boyden, *supra* note 22, at 477–78 ("[T]he game's constituent elements may be copyrightable, but the game itself is not . . . . [T]he game designer's expression, in the rules and game equipment, largely ends with the players, who do not convey the game designer's expression further.").
142. The most important consequence of viewing gameplay as a system is that, by "playing" a game, one would not "perform" the game in the sense contemplated by copyright, and therefore merely playing a game could not constitute infringement, regardless of what components of the game itself are copyrightable. If anything, this weighs in favor of a copyright for game rules because it eliminates the concern that one would need a "public performance" license to play a game with copyrighted rules.

A third and final view comes from the famous *Nimmer on Copyright* treatise, published in 1963,[143] and is followed in both the Eighth and Tenth Circuits today.[144] This view treats § 102(b) as merely codifying the idea-expression dichotomy, meaning the "system" exclusion adds nothing beyond the abstractness exclusions discussed above.[145] This interpretation of § 102(b) is likely incorrect, given that the legislative history of the Copyright Act indicates Congress did not intend to encapsulate the view from *Nimmer*,[146] but is notable for its consequences regarding rules. In the Eighth and Tenth Circuits, abstractness is the only recognized § 102(b) exclusion. Thus, *all* rules must presumably be copyrightable, even those that are methods of operation, since no rules are merely abstract ideas.[147]

All three of these interpretations of the system exclusion permit game rules, as defined in this Article, to be copyrighted. Therefore, it appears most video game rules are not excluded from copyright under § 102(b). The only rules that are excluded are those relating to the controls of a game (i.e., dictating which inputs to use for different actions), which are methods of operation.

III. Consequences of Copyright Protection for Rules

Analysis of the § 102(b) exclusions reveals that courts and legal scholars have been mistaken in concluding that video game rules are categorically excluded from copyright protection. However, because video game rules include elements of both creative expression and the functionality of code, they should receive a "thin" copyright that only protects them from virtually identical copying.[148]

This is admittedly a narrow scope of protection, limiting infringement to scenarios in which the rulesets of two games are "virtually identical" in their entirety.[149] For example, *Mino* would infringe a thin copyright granted to the

143. Samuelson, *supra* note 86, at 1953.
144. Boyden, *supra* note 22, at 459. My research did not reveal any change in the position of these Circuits since Boyden reached this conclusion.
145. *Id.*; Samuelson, *supra* note 86, at 1953 ("The treatise asserted that *Baker* should be understood as a case about the distinction between abstract ideas and protectable expression, and nothing more.").
146. Samuelson, *supra* note 86, at 1953–56 (explaining that, when Congress enacted § 102(b), it was influenced by the views of Professor Benjamin Kaplan, not Nimmer's treatise, which only gained recognition after the Copyright Act was passed).
147. *See* discussion *supra* Part II.B.1.
148. *See* discussion *supra* Part II.A.3.
149. *See* discussion *supra* Part II.A.3. It appears that only the rulesets, rather than the *entire* video games, would be compared for virtual identity, because the other copyrightable elements of a video game, the audiovisual components, receive broader protection for which the "substantial similarity" test applies. *See* Frybarger v. International Business Machines Corp., 812 F.2d 525, 529 (9th Cir. 1987) ("As for the expressive elements in the [video games], the district court held that no reasonable jury could find them *substantially similar*.") (emphasis added).

rules of *Tetris*, because *Mino* copied this entire ruleset without modification.[150] The same cannot be said, however, of *TFT* and *Auto Chess*. We have seen that, while *TFT* did copy some rules from *Auto Chess* exactly, it also modified and added many others, resulting in considerably different gameplay overall.[151] Thus, when considering the two rulesets as a whole, a court would be unlikely to find that the rules of *TFT* infringe upon the *Auto Chess* copyright.[152]

This Part analyzes the consequences of extending this narrowly scoped copyright to game rules and argues that doing so would benefit the gaming industry overall. First, it discusses two inherent benefits of recognizing thin copyright protection for game rules: improved clarity regarding how copyright law applies to video games and improved prevention of video game clones. Next, it refutes arguments that the scope of a thin copyright might not be appropriate and concludes that a thin copyright, which prevents clones like *Mino* but not more creative "copycats" like *TFT*, strikes the right balance between protecting creativity and permitting innovation. Finally, it acknowledges some limitations of applying thin copyright protection to game rules, but argues this approach is still favorable in comparison to the alternative of patent protection.

A. *Benefits of a Thin Copyright*

As outlined above, thin copyright protection for game rules would render *Mino* infringing but not the more limited copying in *TFT*. But in the status quo, where there is no recognized copyright for rules, *Mino* is already infringing and *TFT* is already allowed to exist. Why is it so important, then, to formally adopt a thin copyright for video game rules if it would not change these results?

Adopting a thin copyright would have at least two concrete benefits for the video game industry. First, it would improve clarity for both game developers and judges, allowing the enforcement of copyright in the video game industry to become more consistent and equitable. Second, it would help prevent the increasingly prevalent practice of video game cloning, which, despite cases like *Tetris Holding*, persists in the status quo because copying entire rulesets is perceived as legally permissible.

1. Improving Clarity

As we have seen, courts have an intuitive sense that the limitations and affordances of a game should be copyrightable but have not yet recognized

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150. Tetris Holding, LLC v. Xio Interactive, Inc., 863 F. Supp. 2d 394, 397 (D.N.J. 2012) ("Xio readily admits that its game was copied from *Tetris* and was intended to be its version of *Tetris*.").

151. *See* discussion *supra* Part I.C.2.

152. *See* Apple Computer, Inc. v. Microsoft Corp., 35 F.3d 1435, 1447 (9th Cir. 1994) (holding that a computer program could only infringe another's copyright if the two works were "as a whole . . . virtually identical").

that these are, in fact, a game's rules.[153] This oversight has unfortunately created confusion as to how copyright should be applied to video games. The *Tetris Holding* case discussed above is illustrative of this issue. The *Tetris Holding* court was rightfully determined to find infringement in this case, given that Xio clearly intended to make a near exact copy of *Tetris*.[154] However, in finding infringement, the court did not recognize rules as copyrightable expression distinct from the unprotectable mechanics of *Tetris*.[155] Instead, it muddled the application of the idea-expression dichotomy to video games and mischaracterized many rules of *Tetris* as purely audiovisual features to reach its conclusion, creating "problematic" precedent for other courts to follow.[156]

Thin copyright protection for game rules would help alleviate this confusion by providing a more principled basis upon which courts could find copyright infringement in video game cases. If the *Tetris Holding* court had applied thin copyright protection to the rules of *Tetris*, it could have simply found infringement on grounds that *Mino* was a "virtually identical" copy of both the rules and audiovisual elements of the game. This approach would have allowed the court to avoid straining to describe the expressive elements of *Tetris* as something other than rules while still being able to punish Xio's "blatant" contravention of the purpose of copyright law.[157] *Tetris Holding* therefore illustrates that granting rules a thin copyright would provide a principled framework for the way courts have already treated video games under copyright law.

Adopting this more principled approach would give game developers, who have struggled to draw the line between drawing inspiration from and illegally copying a previous game,[158] a clearer understanding of what elements of previous games copyright law permits them to borrow. This improved

153. *See* discussion *supra* Part II.B.1.

154. *Tetris Holding*, 863 F. Supp. 2d at 399 ("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. There is no question that Xio thought of its game as essentially a version of *Tetris*.").

155. *See supra* notes 105–107 and accompanying text.

156. *See* Ard, *supra* note 19, at 1325 ("The court's analysis of gameplay elements within the idea-expression framework was nonetheless problematic."); Maitra, *supra* note 34 (explaining that "the court found that the shapes of the pieces (which dictate how and where the shapes fit on the board), the movement of the pieces (which dictates how to place the shapes on the board), and the size of the board (which dictates exactly where to place the shapes on the board)" were not rules, but were copyrightable).

157. *Tetris Holding*, 863 F. Supp. 2d at 411 ("Tetris Holding made specific and deliberate design choices and its product has enjoyed great success; to allow Xio to profit off that expression, and that success, by blatant copying, without offering any originality or ingenuity of its own, defies the very purpose of copyright law.").

158. *See* van Roessel & Katzenbach, *supra* note 13, at 414–15 (describing the complications developers highlighted when asked about the aspects of a game that should be legally protected from copying).

understanding will help developers both avoid copyright infringement and more consistently enforce their own video game copyrights when appropriate. A more principled framework for video game copyrights would also create a clearer distinction between protectable rules and unprotectable mechanics, assisting judges with the difficult task of determining what aspects of gameplay are protectible.[159] Extending a thin copyright to game rules would therefore help judges set clearer precedent and issue more consistent rulings, thereby improving equity and predictability for video game litigants.[160]

2. Preventing Cloning

Applying thin copyright protection to game rules would also help prevent the practice of video game "cloning" from undermining creative expression in the industry. Cloning, or creating a video game which copies the salient aspects of an earlier title to capitalize on its financial success,[161] has become increasingly widespread in the video game industry in recent years, especially amongst mobile games.[162] This proliferation can be attributed in part to a perception in both the game development and legal communities that cloning a game's rules is unambiguously legal.[163] Granting rules even thin copyright protection would dispel this notion, since clones, by nature, create a "virtually identical" copy of

159. *See id.* at 405 ("[I]n the context of games, applying the tenets of copyright can be particularly difficult; an initial understanding of the game may be obscured by the presentation of graphics and audio, however, it is the rule-based systems of games that constitute their truly defining elements.").

160. *See* Frederick Schauer, *Precedent*, 39 Stan. L. Rev. 571, 595–96 (1987) (discussing how the decision-making rules set by precedent can improve consistency between like cases and therefore promote the normative value of fairness).

161. *See* Dean, *supra* note 26, at 1249–50 ("The video game industry has adopted the term 'clone' to refer (often pejoratively, though not always) to video games that copy salient aspects of other games' mechanics, graphics, or stories in order to piggyback on their financial successes.").

162. *See* Kevin Nguyen, *Revisiting Threes, 2048, and the Endless Chain of Ripoffs*, The Verge (Feb. 10, 2022), https://www.theverge.com/22914955/threes-2048-ketchapp-copycats-clones-mobile-games [https://perma.cc/QU7Y-G6CK] (discussing how popular mobile game *Threes*, which took fourteen months to develop, was copied almost immediately upon release by several developers); Ryan Rigney, *How to Make a No. 1 App With $99 and Three Hours of Work*, Wired (Mar. 5, 2014), https://www.wired.com/2014/03/flappy-bird-clones/ [https://perma.cc/XQG9-GQ6P] (explaining that the source code needed to build clones of popular mobile games is often cheaply available, allowing for countless knock-off games to be developed).

163. *See, e.g.*, Nicholas M. Lampros, Note, *Leveling Pains: Clone Gaming and the Changing Dynamics of an Industry*, 28 Berkeley Tech. L.J. 743, 745–46 (2013) ("Xio adopted what has become a fairly standard clone defense: that it had . . . copied only the unprotected rules and functionality of *Tetris*."); Simon Parkin, *Clone Wars: Is Plagiarism Killing Creativity in the Games Industry*, The Guardian (Dec. 23, 2011), https://www.theguardian.com/technology/gamesblog/2011/dec/21/clone-wars-games-industry-plagiarism (quoting a game developer who believes cloning game design is unambiguously "legally OK") [https://perma.cc/EB42-UTT7].

an earlier game's rules, even if they change some of its audiovisual elements.[164] By definitively categorizing the cloning of games as copyright infringement, thin copyright protection for rules would help deter the practice of cloning in a way the status quo does not.[165]

It is important that copyright law prevent cloning because the practice is antithetical to the core purpose of copyright. Courts have long recognized that the "ultimate aim" of copyright law is to "stimulate artistic creativity for the general public good," which it does by granting creators a monopoly over their works in exchange for their creative labor.[166] This monopoly, so long as it does not unduly constrain public access to the arts, benefits the public by incentivizing the dissemination of works that would otherwise not be economically viable to create.[167]

Video game clones directly undermine this purpose of copyright law by reducing the economic viability of creating an innovative new game without adding any creativity of their own to the video game market. Developers of clones go far beyond taking inspiration and borrowing essential mechanics from older titles; they copy virtually every gameplay element of earlier works, removing all creativity from the game design process.[168] By copying nearly all the salient features of a successful game, clones are able to capture a sizeable portion of the original game's player base while expending only a fraction of the time and money spent by its developers.[169] This results in a video game market where the most practical economic strategy is to copy older games, as expending the resources to develop a novel title is not worth the financial risk.[170] In such a market, consumers' desire for creative new titles is left

164. *See* van Roessel & Katzenbach, *supra* note 13, at 408 (referring to this type of cloning as "reskinning" and remarking that it involves near or completely identical copying of rules).

165. *See* Dean, *supra* note 26, at 1279 ("If a clone developer thinks that she faces a tangible risk of copyright infringement litigation . . . she may be discouraged from cloning and perhaps encouraged to produce original gaming content instead.").

166. *See* Sony Corp. of Am. v. Universal City Studios, Inc., 464 U.S. 417, 432 (1984) (quoting Twentieth Century Music Corp. v. Aiken, 422 U.S. 151, 156 (1975)).

167. *See id.*; Robert M. Hurt and Robert M. Schuchman, *The Economic Rationale of Copyright*, 56 Am. Econ. Rev. 421, 425 ("The private return to publishers and authors, in the absence of copyright protection, is held to be smaller than the economic value of their literary products to society. The general welfare will therefore be enhanced by enacting copyright legislation which encourages the creation and publication of manuscripts that otherwise would not have come into existence.").

168. *See* Parkin, *supra* note 163 (interviewing a game designer who argues that cloning is 'an optimal way for [clone developers] to function from an economical perspective but it also takes the creativity from game design and endangers the companies that do want to create novel, creative things and do need the time to pioneer.'").

169. *See* Dean, *supra* note 26, at 1250–51 (describing how clones can profit merely by "siphoning off" customers from an antecedent game).

170. *See* Parkin, *supra* note 163 ("[G]ame companies that create novel games will be forced to close down resulting in a market with only highly optimized business structures that

unmet, resulting in less enjoyable games for the public and less fulfilling work for game developers.[171] Thin copyright protection can therefore promote the public good by protecting the financial viability of creative new games that would otherwise be deterred by the threat of cloning.

However, one might argue that there is no need for copyright protection against clones on grounds that the video game industry, and especially mobile gaming, has experienced massive economic growth without any sort of copyright for game rules.[172] But this argument does not consider that this growth has not been distributed equally. While large companies have the legal resources and brand recognition to make profitable games in spite of clones (and to make clone games themselves), smaller indie developers do not have the legal sophistication to fight against cloning and often experience significant setbacks when a clone of their game is released.[173] This dynamic forces indie developers, who often work hard to develop novel game ideas, to either shut down or become copycats themselves.[174] Furthermore, as programming tools for creating games have become more accessible, it has become cheaper and easier than ever to clone existing titles,[175] thereby creating an increased risk that future developers will have their games copied.

While cloning has not yet prevented growth in the video game industry overall, thin copyright protection for game rules is nevertheless needed to stop cloning from creating ever-growing market pressures that discourage the development of innovative new games. By undermining the market incentive for originality, cloning harms not only consumers, who are deprived of exciting new releases, but also developers, who are forced to choose between

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can't create new games, only recycle old ones.") (citation omitted).

171. *See id.* (describing how both consumers and developers expressed a desire for "a healthy and original ecosystem of games").

172. *See* Ryan Parreno, *Gaming Is Five Times Bigger Than Movies Now*, Gameranx (Dec. 13, 2022), https://gameranx.com/updates/id/416500/article/gaming-is-five-times-bigger-than-movies-now [https://perma.cc/S7Q5-U9B4] (explaining that gaming is now the largest entertainment category by revenue, largely thanks to mobile games).

173. *See* Dean, *supra* note 26, at 1251 ("The risk and resulting harm of being cloned is even graver when the original game comes from a small, unsophisticated indie developer without legal counsel or a large marketing budget to fight back against the tide of lookalikes."); Lampros, *supra* note 163, at 768–70 (explaining how Mattel was able to beat out a small developer who had made a mobile game clone of *Scrabble* but was ultimately surpassed by Zynga, a large mobile developer which created the *Scrabble*-like *Words With Friends*); Parkin, *supra* note 163 (describing how small developer Vlambeer Games was set back for "months" by a clone of their game and how small developer Twisted Pixel decided not to take legal action against Capcom, a large developer which cloned its *'Splosion Man* game).

174. *See supra* note 170 and accompanying text.

175. *See* Dean, *supra* note 26, at 1250 ("[A]s the tools for programming new mobile games become more widelydisseminated and user friendly . . . cloning games has become easier, more widespread, and more lucrative for clone developers . . .").

the drudgery of creating clone games themselves or going out of business.[176] Thin copyright protection for game rules would finally give developers reliable legal protection against cloning, helping to "promote the progress of . . . useful arts,"[177] in the video game industry and support the public good.

B. *Addressing Counterarguments Concerning Scope*

We have seen that granting game rules thin copyright protection would result in at least two concrete benefits: improved clarity regarding video game copyrights and improved protection against clones. Nevertheless, some might argue that a thin copyright is inappropriate because it does not establish the right scope of protection for gameplay. One form of this argument is that, since many games necessarily have rules that overlap with one another,[178] even thin copyright protection for game rules would be too broad and overly constrain competition. Conversely, others might argue that a thin copyright is too narrow, as it does not provide sufficient protection for game rules to adequately incentivize the creation of original titles. This Subpart attempts to refute both these arguments and demonstrate that, in fact, thin copyright protection for game rules strikes an appropriate balance between protecting creativity and permitting innovation within the video game industry.

1. Thin Copyright is Not Overly Broad

At first, it might seem that even thin copyright protection for game rules would risk overly constraining competition in the video game industry.[179] Historically, game developers have long copied and improved upon each other's ideas, leading to a wider variety of games being available to consumers.[180] And currently, since developers cannot claim copyright ownership over gameplay itself, multiple games are able to coexist within a genre, creating competition that pushes innovation forward.[181] Copyright protection for game rules might

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176. *See* van Roessel & Katzenbach, *supra* note 13, at 409 ("Making a reskin is particularly unattractive to game designers, as it makes their job of creating the rules and gameplay superfluous.").
177. U.S. Const. art. I, § 8, cl. 8.
178. *See* van Rossel & Katzenbach, *supra* note 13, at 403.
179. *See* Dean, *supra* note 26, at 1274 ("[A] valid concern about such a significant shift in copyright towards greater protection for original games . . . is that the legal regime might flip from overprotecting clone games to overprotecting their antecedents.").
180. *See id.* at 1249 ("To a great extent such copying is both healthy and essential: the wide variety of games available today is due to the fact that new developers have innovated and 'riffed off ' of the storylines, game mechanics, and design elements of earlier video games.").
181. *Id.* ("[T]he fact that major franchises like *Halo*, *Gears of War*, and *Call of Duty* are able to coexist in the marketplace without mutually disadvantageous litigation is because no single developer can claim ownership, through copyright, of the "first person shooter" video game genre.").

jeopardize this innovation by allowing a developer to claim extensive ownership over certain gameplay features and monopolize an entire game genre.[182]

However, the narrow scope of infringement for a thin copyright makes it unlikely that legitimate competition would be deterred by granting rules thin protection. Because virtual identity is required, infringement of a thin copyright will not occur unless the set of *all* copyrightable rules in an original and potentially infringing game are nearly identical.[183] Developers would therefore only be able to monopolize the use of their exact ruleset and minor variations thereof, leaving ample room for competition even within genres.[184]

Furthermore, two important copyright doctrines, scènes à faire and fair use, limit this already narrow scope even further. Scènes à faire is a doctrine that excludes "tropes and standard conventions of a genre" from copyright protection on grounds that these standard features are "indispensable" to the expression of a given idea.[185] For example, scènes à faire will exclude from copyright protection certain plot devices that are the inevitable result of the premise of a literary genre, as one would be unable to tell a story in that genre without them.[186] Scènes à faire has also been applied in the context of sports video games to exclude visual elements that are indispensable to depicting the sport realistically from being copyrighted.[187] This same logic could be applied

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182. *Id.* ("If a game developer could claim ownership of too much of his or her creation, that developer 'could end up owning an entire genre and shutting out creativity for decades,' which would stunt innovation and development.").
183. Apple Comput., Inc. v. Microsoft Corp., 35 F.3d 1435, 1447 (9th Cir. 1994) ("[I]llicit copying could occur only if the works as a whole are virtually identical.").
184. Even if a developer desires to reuses the mechanics typical of a genre, she can implement these mechanics using different rules from previous games. *See* discussion *supra* Part I.C; *see also* van Roessel & Katzenbach, *supra* note 13, at 414 (giving an example from the 2D platformer genre of implementing mechanics with different rules). This will result in an original enough ruleset that it would not infringe the thin copyright in the rules of previous games in the genre.
185. *See* Ard, *supra* note 19, at 1328 ("Scènes à faire shields video games from liability for covering typical game subject matter because it precludes copyright owners from suing over the use of tropes and standard conventions of a genre."); *see also Apple Comput.*, 35 F.3d at 1444 ("[W]hen similar features in a videogame are ' "as a practical matter indispensable, or at least standard, in the treatment of a given [idea]," ' they are treated like ideas and are therefore not protected by copyright.") (quoting Frybarger v. Int'l Bus. Machs. Corp., 812 F.2d 525, 530 (9th Cir. 1987)).
186. Reyher v. Child.'s Television Workshop, 533 F.2d 87, 92 (2nd Cir. 1976) ("This similarity of events, however, may be considered scenes a faire, scenes which necessarily result from identical situations. Thus, where a lost child is the protagonist, there is likely to be a reunion with parents.").
187. Incredible Techs., Inc. v. Virtual Techs., Inc., 400 F.3d 1007, 1015 (7th Cir. 2005) ("[T]he Global VR video display is subject to the scènes à faire doctrine. Like karate, golf is not a game subject to totally 'fanciful presentation.' In presenting a realistic video golf game, one would, by definition, need golf courses, clubs, a selection menu, a golfer, a wind meter, etc.") (citing Data E. USA, Inc. v. Epyx, Inc., 862 F.2d 204, 209 (9th Cir.1988)).

in the context of game rules to exclude any rule which is indispensable to the gameplay of a certain genre from being copyrighted.[188]

The doctrine of fair use, which allows for limited portions of a copyrighted work to be reproduced without infringement,[189] also limits the scope that a copyright for game rules would have. Whether the reproduction of a copyrighted work is "fair use" depends on four factors: (i) the purpose and character of the use, (ii) the nature of the work, (iii) the amount and substantiality used, and (iv) the effect on the potential market for the work.[190] The evaluation of these four factors is notoriously fact-specific. In practice, fair use therefore operates more as a general inquiry into whether the use comports with the purposes of copyright law than a strict four-part test.[191] However, one general rule is that a fair use must typically be "transformative," meaning it imbues the original work with a further purpose or character.[192]

Although fair use has many inherent ambiguities, we can at least conclude that it permits game developers to copy rules from earlier games without facing infringement liability if those rules are used in a transformative context. While fair use will not excuse the exact copying of rules as in clone games,[193] it may excuse the copying of rules in games that also incorporate new rules and other creative elements to create a transformative gameplay experience.

Thus, fair use and scènes à faire would allow developers to copy many rules without facing the threat of infringement liability even if game rules were generally copyrightable. Combined with the already narrow scope of protection inherent to thin copyrights, it therefore appears unlikely that adopting thin copyright protection for video game rules would unduly constrain competition and innovation in the industry.

2. Thin Copyright is Not Overly Narrow

Now that we have seen how narrow thin copyright protection for rules would be, a better objection to such a copyright may be that its protection

188. *See* Ard, *supra* note 19, at 1328 (explaining that scènes à faire prevents "technical or stylistic conventions" that are necessary to a genre from being copyrighted).
189. 17 U.S.C. § 107.
190. *See* Ard, *supra* note 19, at 1329.
191. Campbell v. Acuff-Rose Music, Inc., 510 U.S. 569, 577–78 (1994) (explaining that the evaluation of fair use "is not to be simplified with bright-line rules" and calls for all four factors to be "weighed together, in light of the purposes of copyright").
192. *See* Ard, *supra* note 19, at 1330 ("Where the work is transformative—meaning it 'adds something new, with a further purpose or character, altering the first with new expression, meaning, or message'—courts tend to excuse such use as fair. While transformativeness is not strictly required to establish fair use, courts have become reluctant to find fair use without it.").
193. *See id.* ("Transformativeness presents an obstacle for clones because the act of cloning implies a lack of transformative purpose. Developers create these games for the same purpose as the originals, namely, to provide entertainment for players who enjoy that type of game.").

would be *too* narrow to adequately incentivize creativity in the video game industry. However, rather than incentivizing creativity, broader copyright protection for rules would only restrict the creativity flourishing in the industry by limiting competition withing game genres. If protection was expanded to cover more than virtually identical copying, then the concern that developers could monopolize entire genres would become very real.[194]

For example, if the broader "substantial similarity" test for infringement applied, *TFT* might infringe the copyright to the rules of *Auto Chess*. Despite the overall gameplay of the two titles being notably different, *TFT* did copy several rules from *Auto Chess* exactly,[195] which may be "substantial" enough for a court to find infringement.[196] But auto-battler fans would be worse off overall if *TFT* were illegal, as it is an inventive game in its own right and is widely considered the best game in the genre.[197] And since video games of all genres are based on their predecessors,[198] the ability of developers to restrict the creative freedom of their competitors would be a major concern across the industry were the scope of copyright for game rules broadened.

Overall, it appears that thin copyright protection for game rules would strike the right balance between protecting creative expression and permitting innovation in the video game industry. While its scope of protection would be narrow, a thin copyright would improve fairness between game developers by clarifying the copyright standards that apply to their works. It would also help prevent cloning, which has gone largely unchecked in the status quo, as even thin copyright protection would be a notable deterrent to the wholesale copying of rulesets that clones currently engage in. At the same time, thin copyright's narrow scope would leave room for legitimate competition within game genres, allowing innovative titles like *Auto Chess* and *TFT* to continue to coexist.

C. *Limitations and Alternatives*

Despite the benefits of a thin copyright for rules, such an approach would admittedly have some limitations. First, to apply such a copyright correctly, judges would need a firm grasp of the distinction between rules and mechanics,

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194. *See supra* note 182 and accompanying text.
195. *See* discussion *supra* Part I.C.2.
196. Several tests are used for substantial similarity, and different courts have applied different tests to video games. *See* Lunsford, *supra* note 26, at 102 ("Substantial similarity suits for videogame infringement are uncommon, but in the few existing cases, the circuit courts have applied the various tests differently."). However, all these tests are generally based on the similarities an "ordinary observer" would identify between the two works, *id.* at 102–104, which could plausibly lead a game like *TFT*, which shares numerous gameplay elements with *Auto Chess*, to be deemed infringing.
197. *See supra* note 10 and accompanying text.
198. *See* van Rossel & Katzenbach, *supra* note 13, at 403; Ard, *supra* note 19, at 1333 ("[S]o many titles are iterative improvements on what has already been done.").

as the dividing line between the two also establishes the boundary between gameplay's copyrightable expression and its uncopyrightable ideas. Drawing this line may not be easy; after all, the legal world is yet to recognize that a distinction between rules and mechanics exists at all,[199] and even game developers struggle to determine the exact boundary between the two.[200] Nevertheless, the distinction between rules and mechanics drawn in this Article provides some guidance for determining the copyrightable aspects of gameplay and is therefore an improvement over the status quo, where terminology is used inconsistently and gameplay elements are protected (or not) on a seemingly ad hoc basis.

Secondly, extending thin copyright protection to video game rules would likely lead to many fair use disputes between developers, given the amount of overlap that the rules of similar games may have. The subjectivity inherent in fair use analyses admittedly diminishes the extent to which a thin copyright would improve clarity for developers, since it would be hard to predict whether a fair use argument pertaining to a certain rule would succeed in advance.[201]

Those who believe video game rules do deserve more protection from copying than they currently receive but are skeptical of the uncertainty entailed by copyright might suggest patents as an alternative form of protection. While it is possible to patent rules, such patents are rare and have been controversial as applied to video games.[202] Patents appear to be of limited use for protecting video game rules because they are too costly and require too much advanced planning for smaller developers to secure.[203] Patent protec-

199. *See supra* note 26 and accompanying text.

200. *See* van Roessel & Katzenbach, *supra* note 13, at 414 ("[T]he rule-based system poses the greatest challenge when legally delineating clones from innovations. Also, it turned out to be complicated with regard to . . . pinpointing the boundary when it comes to taking on another game's rules and mechanics."); *see also* Lunsford, *supra* note 26, at 98 ("The distinction between a game mechanic and the protectable expression of a game mechanic is difficult to discern.").

201. Andre Menko Bleech, *What's the Use - Good Faith Evaluations of Fair Use and Digital Millennium Copyright Act Takedown Notices*, 18 Comm. Law Conspectus 241, 248 (2009) ("[W]ith such a subjective measure, the fair use doctrine provides the unauthorized user of copyrighted material little comfort as to his or her legal standing.").

202. *See* Hemnes, *supra* note 82, at 172 n. 10 ("Although unusual, patent protection for a game is not unheard of."). The most notable example of a controversial video game patent is the patent for Shadow of Mordor's highly regarded "nemesis system," issued in 2021 to Warner Brothers Entertainment. *See, e.g.*, Richard Hoeg, *Is Warner's Nemesis Patent Really 'Gross'? I'm Not Sure I'd Go That Far*, VGC (Feb. 10, 2021), https://www.videogameschronicle.com/features/opinion/is-warners-nemesis-patent-really-gross-im-not-sure-id-go-that-far/ [https://perma.cc/PT22-EP5V]; Lauren Morton, *Shadow of Mordor's Nemesis System Is Patented, Which Sucks*, Rock Paper Shotgun (Jan. 29, 2021), https://www.rockpapershotgun.com/shadow-of-mordors-nemesis-system-is-patented-which-sucks [https://perma.cc/SX33-KGRV].

203. *See* Ard, *supra* note 19, at 1334 ("Patenting is expensive and takes years: the average cost is over $20,000 and patents may not issue for twenty-three months."). Patent

tion for game rules would therefore be rather inaccessible in comparison to copyright, which would apply automatically.[204] On balance, therefore, a thin copyright is a more equitable way to protect the creative expression inherent in video game rules without overly constraining innovation and competition between games.

Conclusion

There is an important distinction between the rules and mechanics of a video game that courts and legal scholars are yet to adequately appreciate. Rules are the explicit limitations and affordances imposed on the players of a game by its developer(s), whereas mechanics are the more general game design principles that direct player behavior. Mechanics are comprised of rules, and the same mechanic may be instantiated in different games by using different rules.

Once this difference between rules and mechanics is understood, it becomes apparent that courts have been mistaken in categorically excluding rules from copyright under the exceptions listed in § 102(b) of the Copyright Act. Many courts have excluded game rules on grounds that they are too abstract, but these holdings improperly conflate rules, which are too specific to be "ideas, concepts, or principles," with the mechanics they constitute. And while some have argued that rules are excluded under one of the "functional" exceptions to copyright protection, it appears these exceptions would only apply to rules that directly describe how a user controls a game. Thus, as defined in this Article, most video game rules are copyrightable despite the widespread belief to the contrary.

Copyright law dictates that only a narrow scope of protection should apply to these rules. Because video games are computer programs and not one of the artistic works that copyright was primarily designed to protect, their rules should receive only "thin" protection which prevents "virtually identical" copying but nothing more. This protection is limited even further by the scènes à faire doctrine, which would prevent rules "indispensable" to a genre of game from being copyrighted, and fair use, which permits the copying of rules for a transformative purpose. This narrow scope of protection would allow games like *TFT* to be made without infringing on the copyright of their predecessors but would prevent direct cloning of the sort in *Tetris Holding* in a principled

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application must also be filed no later than a year after "public disclosure" of their subject matter. 35 U.S.C. § 102(b)(1)(B). This poses a significant barrier for many developers, who commonly disclose many details of a game via pre-release trailers or crowdfunding campaigns years before the game is released to secure funding. *See* Ard, *supra* note 19, at 1334 ("In an industry where presales through crowdfunding campaigns and detailed pre-release trailers are common, the decision to patent would need to be made prior to release.").

204. 17 U.S.C. § 102(a).

way, providing increased certainty and fairness to game developers seeking to enforce their copyrights.

It might seem that such thin copyright protection is too narrow, still allowing for video game developers to substantially copy others' games without permission. But granting a broader copyright to game rules would risk stifling innovation in an industry where many new games are based on earlier titles. Gamers benefit greatly from having several games to choose from within a genre, as competition encourages developers to improve on existing game mechanics, like *TFT* did in the auto-battler genre. Therefore, it appears that thin copyright protection for video game rules would effectively balance the need to prevent cloning in a principled way with the desire to allow innovation to proceed in the video game industry unencumbered.

This Article focuses on video games, but the distinction between rules and mechanics applies equally to all games. Thus, further consideration is needed as to whether the rules of other types of games, like tabletop games and sports, are copyrightable and what the scope of that copyright would be. Although that question is beyond the scope of this Article, it is likely that if copyright were extended to the rules of all games, creative expression could be protected without leading to the monopolization of the development and play of enjoyable games as a result of the narrow scope such protection would have.[205]

The experience of playing a well-designed video game for the first time can be incredibly special. Copyright law should protect the creative expression that goes into creating these experiences without hindering the "iterative improvement" process that has allowed for the creation of many of the world's most successful video games.[206] The key to balancing these interests lies in providing thin copyright protection for game rules. Luckily, the rules of copyright already dictate that the rules of video games should be protected in this very way.

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205. Boyden's argument that "playing" a game cannot result in copyright infringement also helps assuage this concern. *See supra* note 142 and accompanying text.

206. *See* Ard, *supra* note 19, at 1333.