
ARTICLE

OWNING E-SPORTS: PROPRIETARY RIGHTS
IN PROFESSIONAL COMPUTER GAMING

DAN L. BURK[†]

I.	BACKGROUND.....	1537
	A. <i>The Games</i>	1538
	B. <i>The Tournaments</i>	1540
	C. <i>The Korean Connection</i>	1541
II.	COPYRIGHT	1544
	A. <i>Authorship</i>	1545
	B. <i>Window and Text</i>	1550
	C. <i>Functional Constraints</i>	1555
	D. <i>Material Constraints</i>	1557
	E. <i>The Rules of the Game</i>	1560
	F. <i>Games as Systems</i>	1563
III.	ALTERNATE REGIMES	1569
	A. <i>Rights of Publicity</i>	1569
	B. <i>Neighboring Rights</i>	1574
	CONCLUSION.....	1577

INTRODUCTION

One of the most astounding and largely underappreciated developments accompanying the recent proliferation of mass-market computer technology

[†] Chancellor's Professor of Law, University of California, Irvine. I thank Mike Madison, Jennifer Rothman, and participants in the *University of Pennsylvania Law Review* Symposium, "The Evolving Internet," as well as John Whelan and participants in the 2011–2012 Munich Intellectual Property Law Center Lecture Series, and participants in the University of Utah S.J. Quinney College of Law faculty seminar for their comments on previous versions of this work.

has been the rise of video gaming.¹ From arcade to console and computer desktop to interactive multiplayer network, the explosion in computer video games has been spurred by Internet accessibility, whether for downloading and updating software, tendering payment, or finding and interacting with other players. The result has been a flourishing new entertainment sector, with revenues that now consistently rival or exceed that of the established music and movie industries.²

Among the notable developments associated with the rise in computer gaming has been the emergence of a small but growing cadre of professional gamers. Millions of people play computer games as avocation or amusement, but some exceptionally skilled players are intent on making a living at what has been dubbed “e-sports.”³ The advent of this new vocation has been supported and accompanied by the development of a nascent professional infrastructure with features familiar from the world of physical sports and entertainment, including tournaments, leagues, fans, teams, team owners, player contracts, sponsors, and the like.⁴ Yet many gaps and ambiguities remain in these supporting institutions, including significant uncertainties in the law needed to define the formal relationships among the various actors.

In this Article, I consider a fundamental set of legal issues, integral to e-sports, that concern the ownership and control of rights in player performances. The nature of such competitions presents a new and fairly complex practical configuration for legal analysis. Analogous questions regarding the ownership of physical performances have certainly arisen in the past, but the nature of e-sports generates certain novelties in the analysis. Unlike physical sports, where player activity is observed and recorded directly for broadcast and similar dissemination, e-sports competitions are by definition mediated by computer game software that is itself the subject of various

¹ See generally J.C. HERZ, JOYSTICK NATION: HOW VIDEOGAMES ATE OUR QUARTERS, WON OUR HEARTS, AND REWIRED OUR MINDS 13-23 (1997) (chronicling the timeline of video game development, from the 1960s through the 1990s); BRAD KING & JOHN BORLAND, DUNGEONS AND DREAMERS: THE RISE OF COMPUTER GAME CULTURE FROM GEEK TO CHIC 26-84 (2003) (describing the evolution of the early video game world, from 1961's *Spacewar!* to 1989's *SimCity*).

² See APHRA KERR, THE BUSINESS AND CULTURE OF DIGITAL GAMES 47-52 & fig.3.1 (2006). Interindustry comparisons are somewhat difficult, depending for example on whether “gaming” is considered to include both hardware and software sales, but clearly computer game sales are very substantial. *Id.*

³ See Michael Wagner, *On the Scientific Relevance of eSport*, PROC. 2006 INT'L CONF. ON INTERNET COMPUTING & CONF. ON GAME DEVELOPMENT (2006) (recounting the history of the term e-sport).

⁴ See generally MICHAEL KANE, GAME BOYS: PROFESSIONAL VIDEOGAMING'S RISE FROM THE BASEMENT TO THE BIG TIME 133-47 (2008); T.L. TAYLOR, RAISING THE STAKES: E-SPORTS AND THE PROFESSIONALIZATION OF COMPUTER GAMING (2012).

intellectual property rights.⁵ This characteristic of e-sports adds to the legal discussion an additional layer of complexity, implicating the interests of additional rights-holding entities not found in negotiations over competitive performances in physical sports.

I begin by sketching out a few critical features of the emerging e-sports phenomenon. I then turn to the most salient theory of ownership and control over such performances, copyright law. E-sports is a worldwide phenomenon, but a comprehensive study of e-sports copyright across multiple jurisdictions is not feasible within the confines of this Article; consequently, my focus here will be on U.S. copyright law. I then turn briefly to alternate theories of performance rights found in the right of publicity and in neighboring rights. Again, my focus will be on the law of the United States, and in the case of neighboring rights, on the potential for such rights under the newly agreed-upon Beijing Treaty on Audiovisual Performances.⁶

E-sports deserves attention, perhaps as a fascinating aspect of the burgeoning computer entertainment industry, but perhaps also as an emerging computer entertainment phenomenon in its own right. Admittedly, its social and commercial significance remains to be seen. Even if e-sports does not become as prominent as anticipated, exploring a new and expanding entertainment infrastructure is valuable because it highlights both lingering and emergent difficulties in applying current proprietary rights regimes to digital media. Analysis of e-sports underscores the issues of user participation, interactivity, and collaboration that are common to information and communication technology, with which copyright seems particularly unequipped to deal. The alternative regimes I consider also display related shortcomings when applied to e-sports, suggesting a pervasive and potentially debilitating set of juridical gaps that yet remain unaddressed in the context of digital media.

I. BACKGROUND

E-sports encompasses certain practices that are immediately familiar from physical sports, as well as practices peculiar to digitally mediated competition. The former, familiar practices encourage comparisons with physical sports and suggest that the treatment of physical sports under

⁵ See Brett Hutchins, *Signs of Meta-Change in Second Modernity: The Growth of E-Sport and the World Cyber Games*, 10 *NEW MEDIA & SOC'Y* 851, 857 (2008).

⁶ Beijing Treaty on Audiovisual Performances, World Intellectual Property Organization, June 24, 2012, AVP/DC/20, available at http://www.wipo.int/edocs/mdocs/copyright/en/avp_dc/avp_dc_20.pdf.

copyright and other intellectual property regimes should serve as a guide to how such regimes might treat e-sports performances. But such comparisons only hold to a certain point, as a brief survey of e-sports practices demonstrates.

A. *The Games*

E-sports tournaments employ a variety of commercial game titles; tournament games span a range of formats and organizational conventions, including both single and team play. Some games depict or mimic physical sports activities, like the *FIFA* football (soccer) game.⁷ This title depicts team soccer, including the rules used in international professional soccer, and the display resembles the broadcast of a virtual international soccer competition. Thus, the display takes a third-person view of the gamer avatars, the field of play, and the action, sometimes from a close-up perspective, sometimes from a “pull back” perspective.⁸

Other games, particularly those in the first-person shooter (FPS) genre, typified by the game *Counter-Strike*, are oriented toward action or combat activity.⁹ FPS games depict an armed character traversing a landscape punctuated by obstacles and barriers, shooting at, and generally being shot at by, human or computer-controlled opponents.¹⁰ The games are designated “first-person” because the interface is somewhat unusual, generating a player’s eye view of the action, as would be seen by an individual in the field of play, rather than an objective bird’s eye or “god’s eye” view of the game action.¹¹

Yet other tournament games are drawn from real-time strategy games (RTS), such as Blizzard Entertainment’s *StarCraft* and *StarCraft II*.¹² In

⁷ See, e.g., *FIFA 13* (Electronic Arts, Inc. 2012).

⁸ Hutchins, *supra* note 5, at 857.

⁹ *Counter-Strike*, originally released in 1999, actually began as a modification (or “mod”) of another FPS, *Half-Life*, created by two *Half-Life* players. Walt Scacchi, *Computer Game Mods, Modders, Modding, and the Mod Scene*, FIRST MONDAY, no. 5, May 2010, <http://firstmonday.org/htbin/cgiwrap/bin/ojs/index.php/fm/article/view/2965/2526>. For the newest game in the *Counter-Strike* franchise, see COUNTER-STRIKE: GLOBAL OFFENSIVE (Valve Corp. 2012). For more information on *Counter-Strike* and the FPS genre, see Jana Rambusch et al., *Exploring E-Sports: A Case Study of Gameplay in Counter-Strike*, SITUATED PLAY: PROC. 3D INT’L CONF. DIGITAL GAMES RES. ASS’N (DIGRA) 157, 157 (Akira Baba ed., 2007). See also Emma Witkowski, *On the Digital Playing Field: How We “Do Sport” with Networked Computer Games*, 7 GAMES & CULTURE 349, 349 (2012).

¹⁰ See JASON GREGORY, GAME ENGINE DESIGN 13 (2009).

¹¹ See Witkowski, *supra* note 9, at 360.

¹² *StarCraft* was originally released in 1998. Kyle Horner, *The History of StarCraft*, PC WORLD AUSTRALIA (July 27, 2010), http://www.pcworld.idg.com.au/article/354647/history_StarCraft.

these games, which some players compare to chess,¹³ the player deploys pieces such as military units to achieve objectives across a broad map. *StarCraft* in particular has become a mainstay of professional tournament play.¹⁴ Less popular but still significant are multiplayer or massively multiplayer online role playing games (MMORPGs or MMOs) such as Blizzard Entertainment's *World of Warcraft* titles.¹⁵ These depict player characters competing in scenarios drawn from fictional genres, such as science fiction or medieval fantasy, with all the spacecraft, aliens, ray guns, dragons, wizards, and enchanted swords that such milieux entail.¹⁶

What is perhaps most striking about this collection of standardized tournament titles is that they are all relatively old as computer games go. In an industry characterized by rapid product turnover, where new titles and frequent updates appear year in and year out, veteran titles such as *Counter-Strike* and *StarCraft* have long since been overtaken by newer titles.¹⁷ This disjunction perhaps speaks to differing speeds of technological and social establishment, and differing types of social niches for gaming. New games, whether electronic or physical, may be quickly adopted by consumers for personal play; however, professional play in competitive games of any sort requires some time for the game to become stabilized, for a fan base to develop, and for the business and vocational infrastructure to accumulate. New physical sports sometimes enter the Olympic or professional canon, but not with great frequency, and not immediately with popularity. Some of the same dynamics are apparent in the e-sports arena.

For the newest game in the franchise, see *STARCRAFT II: HEART OF THE SWARM* (Blizzard Entertainment, Inc. 2013). See also GREGORY, *supra* note 10, at 21.

¹³ See TAYLOR, *supra* note 4, at 108.

¹⁴ See Kalle Jonasson & Jesper Thiborg, *Electronic Sport and Its Impact on Future Sport*, 13 *SPORT IN SOC'Y* 287, 288 (2010).

¹⁵ *World of Warcraft*, which grew out of Blizzard Entertainment's popular *Warcraft* RTS franchise, was first released in 2004. Mike Fenn, *Sex, Plagues, and Violence: 8 Iconic Moments in World of Warcraft History*, DAILY DOT (Nov. 23, 2012), <http://www.dailydot.com/entertainment/world-of-warcraft-history-anniversary>.

¹⁶ See GREGORY, *supra* note 10, at 23-24.

¹⁷ For instance, the top-selling computer game worldwide in 2012 was, in fact, another Blizzard Entertainment title, *Diablo III*, which sold nearly three million copies; by contrast, neither *Counter-Strike* nor *StarCraft* came close to cracking the top 100 video games sold that year. *Global Yearly Chart: 2012*, VGCHARTZ, <http://www.vgchartz.com/yearly/2012/Global> (last visited Apr. 10, 2013). However, Blizzard Entertainment released a *StarCraft* content expansion in March of this year. See *STARCRAFT II: HEART OF THE SWARM*, *supra* note 12.

B. *The Tournaments*

The e-sports industry currently presents a nascent structure that one team owner has compared to the state of American baseball when the first vestigial forms of the current team, league, and ownership structures were emerging.¹⁸ Some e-sports teams, leagues, and tournaments have become relatively stable, while others come and go.¹⁹ Business models are in flux, some gravitating toward the broadcast contract model common in high-profile professional sports; other models gravitate toward Internet-based viewing and dissemination.²⁰ Some team owners are able to turn a profit, but by no means the kind of multi-million dollar revenues found in prominent physical sports.²¹ Professional players are able to make a living, and some few are able to make a comfortable living,²² but the astronomical salaries paid in some professional sports are at this time foreign to e-sports.²³ Team owners often handle the roles of financier, talent scout, recruiter, and promoter all at once. Certain support structures have yet to emerge; for example, T.L. Taylor notes, significantly, that the position of coach, a pivotal role in most professional sports, has yet to emerge in e-sports.²⁴

Networked video gaming tournaments in the United States began before the advent of the public Internet, using either local area network (LAN) connections at the venue or standalone machines.²⁵ Many tournaments are still organized on the LAN model,²⁶ and console play on Xbox or Nintendo devices is becoming increasingly common. Nonetheless, the availability of widespread Internet access has been critical to the development of the e-sports phenomenon. Players frequently arrange online skirmishes for practice, and may find new partners or teammates via Internet play.²⁷ Much of the audience for tournaments “attends” via the Internet.²⁸ While some

¹⁸ See TAYLOR, *supra* note 4, at 151.

¹⁹ See Jonasson & Thiborg, *supra* note 14, at 288.

²⁰ See TAYLOR, *supra* note 4, at 144-45.

²¹ *Id.* at 149, 153-54.

²² See, e.g., Bruce Wallace, *Gamer is Royalty in S. Korea*, L.A. TIMES, Mar. 21, 2007, at A1 (describing one of the most financially successful *StarCraft* players); Zemme, *Getting Paid and Sponsorship, The Attitudes of the WoW Gamer*, MANAFLASK (Feb. 26, 2013, 01:43 AM), <http://manaflask.com/en/blog/Zemme/356> (“Games such as *StarCraft*, *Warcraft 3* and *Counterstrike* have many, many gamers that get paid a substantial amount of money to play the game and enter competitions . . .”).

²³ See, e.g., TAYLOR, *supra* note 4, at 145 (discussing salary structures in the Major League Gaming (MLG) league).

²⁴ *Id.* at 150.

²⁵ See *id.* at 9.

²⁶ See Hutchins, *supra* note 5, at 862; Jonasson & Thiborg, *supra* note 14, at 288.

²⁷ See TAYLOR, *supra* note 4, at 89.

²⁸ *Id.* at 209.

matches are televised—primarily in jurisdictions outside the United States, via broadcast, cable, or pay-per-view channels—more often the fans view tournaments via online streaming media.²⁹ Indeed, both tournament play and individual practice sessions are increasingly available via live streaming through sites such as Justin.tv and Twitch.tv.³⁰

However, not unlike broadcast physical sports, high-profile e-sports tournament play typically occurs in front of a live audience.³¹ In addition to remote viewers who observe the games by digital streaming or other media, crowds of fans gather to watch the actual tournament players hunched over their computer keyboards, fixated on the screens before them. Venues for tournaments range from conventional auditoriums and small stadiums to makeshift arrays of card tables and folding chairs in hotel ballrooms or even warehouses.³² Gameplay is typically projected onto a large screen for the audience to view, although in smaller, local tournaments, spectators may be found simply looking over player's shoulders. Audiences sharing the space with the players can be seen reacting to the progress of the games, engaging in the cheering, yelling, occasional groaning, jumping, and fist-pumping that are familiar sights at any spectator arena.

C. *The Korean Connection*

Although audiences for e-sports are enthusiastic and growing in Europe and North America, “e-sports” is hardly a household word in most areas of the world. The current high-water mark for e-sports, that other regions hope eventually to emulate, is likely found in South Korea, where the audience seems relatively broad and the institutional infrastructure seems relatively developed and stable. Korean e-sports have achieved a degree of recognition and even normalcy.³³ E-sports tournaments are fairly regular and are often carried by television broadcast, including 24-hour cable channels devoted to e-sports.³⁴ Top players attain a degree of celebrity status, and the career path for professional players is relatively clear.³⁵ Teams are fielded and sponsored by a wide variety of organizations, including

²⁹ *Id.*

³⁰ *See id.* at 171, 200; *see also* Mehdi Kaytoue et al., *Watch Me Playing, I am a Professional: A First Study on Video Game Live Streaming*, PROC. 21ST WORLD WIDE WEB CONF. 1181-88 (Alain Mille et al. eds., 2012).

³¹ *See* TAYLOR, *supra* note 4, at 205-06.

³² *See id.* at 200-06.

³³ *See* Hyeryoung Ok, *New Media Practices in Korea*, 5 INT'L J. COMM. 320, 332 (2011).

³⁴ *See id.*; *see also* TAYLOR, *supra* note 4, at 26, 211-12.

³⁵ *See* TAYLOR, *supra* note 4, at 161-62; *see also* Wallace, *supra* note 22.

branches of the Korean military.³⁶ Team and competition sponsors include not only predictable high-technology firms such as Samsung, but also firms such as insurance companies, whose ties to an information technology-associated sport and audience might be less predictable.

South Korea may present something of a special case for computer gaming generally and for e-sports in particular. Computer gaming is a widely accepted and ubiquitous part of everyday life in South Korea, where more than half of the population regularly participates in some type of computer gameplay.³⁷ Computer games are integrated into social life; South Koreans often frequent neighborhood computer game cafes or “bangs,” which may be owned or sponsored by a particular game publisher.³⁸ South Korean online activity is further supported by a national technical infrastructure, including widespread broadband access.³⁹ Indeed, gaming is encouraged by government technological, economic, and consumer policy, in which it constitutes a driver to bolster domestic electronics production and a popular prompt toward consumer electronics purchases.⁴⁰

Consonant with the role of computer gaming in industrial policy, e-sports in South Korea is fostered and promoted by the Korean e-Sports Player Association (KeSPA), a quasiofficial body organized and maintained with governmental approval.⁴¹ Although it is technically a private organization, it has close ties to and official sanction from the Ministry of Culture and Tourism.⁴² KeSPA is an important force in South Korean e-sports, taking the lead in organizing tournaments, providing career guidance for professional players, and handling aspects of marketing and public relations, and, most importantly for this discussion, negotiating broadcast agreements with cable and television outlets.⁴³

³⁶ See *id.* at 25-26 (noting that both the South Korean Air Force and South Korean Navy have sponsored their own e-sports teams).

³⁷ See Florence Chee, *The Games We Play Online and Offline: Making Wang-tta in Korea*, 4 POPULAR COMM. 225, 226 (2006) (explaining what gave rise to the computer gaming phenomenon in South Korea).

³⁸ See *id.* at 230-34; Jun-Sok Huh, *Culture and Business of PC Bangs in Korea*, 3 GAMES & CULTURE 26, 32-34 (2008).

³⁹ See DAL YONG JIN, KOREA'S ONLINE GAMING EMPIRE 17 (2010) (noting that, as of 2008, 95% of South Korean households had broadband access, while only 60% of U.S. households did).

⁴⁰ See Peichi Chung, *The Dynamics of New Media Globalization in Asia: A Comparative Study of the Online Gaming Industries in South Korea and Singapore*, in GAMING CULTURES AND PLACE IN ASIA-PACIFIC 58, 61 (Larissa Hjorth & Dean Chan eds., 2009); Dal Yong Jin & Florence Chee, *Age of New Media Empires: A Critical Interpretation of the Korean Online Game Industry*, 3 GAMES & CULTURE 38, 46 (2008).

⁴¹ TAYLOR, *supra* note 4, at 161.

⁴² *Id.*

⁴³ *Id.* at 25, 161.

KeSPA also unwittingly provides a glimpse of likely future controversies in e-sports, whether in Korea or elsewhere. Taylor documents a recent dispute involving KeSPA and the North American game developer Blizzard Entertainment.⁴⁴ Blizzard is perhaps best known as the developer of the successful MMORPG *World of Warcraft*.⁴⁵ But in e-sports, Blizzard is equally well known as the developer of *StarCraft*, a science fiction-oriented strategy game that has become a standard platform for professional tournament competitions. Indeed, Blizzard has built into *StarCraft* features to promote and enhance tournament play. In South Korea particularly, *StarCraft* has become an important component of e-sports due to collaboration between Blizzard and KeSPA.⁴⁶

In 2010, shortly before releasing the highly anticipated *StarCraft II*, Blizzard announced that it was preparing to break off relations with KeSPA due to a dispute over Blizzard's intellectual property rights.⁴⁷ KeSPA had negotiated broadcast agreements for *StarCraft* tournaments without consulting Blizzard; Blizzard objected that the agreements contemplated broadcast of its copyrighted materials without authorization.⁴⁸ KeSPA publicly took the position that Blizzard might well be entitled to some deference regarding its game platform, but that the negotiations really concerned player performances on a platform that had become an industry standard, and not the platform itself.⁴⁹ After discussions with KeSPA failed, Blizzard in fact broke

⁴⁴ TAYLOR, *supra* note 4 at 162-63. The scholarly literature describing and analyzing *World of Warcraft* is immense and growing. See generally WILLIAM SIMS BAINBRIDGE, *THE WARCRAFT CIVILIZATION: SOCIAL SCIENCE IN A VIRTUAL WORLD* 10-23 (2010); DIGITAL CULTURE, PLAY, AND IDENTITY: A WORLD OF WARCRAFT READER (Jill Walker Rettberg ed., 2008); BONNIE A. NARDI, *MY LIFE AS A NIGHT ELF PRIEST: AN ANTHROPOLOGICAL ACCOUNT OF WORLD OF WARCRAFT* 27-35 (2010).

⁴⁵ *World of Warcraft* boasted, at its height, over twelve million active monthly subscribers, then earning it the distinction of being the most-subscribed MMORPG of all time. See Mark Hachman, *'World of Warcraft' Tops 12 Million Subscribers*, PCMag (Oct. 7, 2010, 2:24 PM), <http://www.pcmag.com/article2/0,2817,2370413,00.asp>. Currently in its fourth content expansion, see *WORLD OF WARCRAFT: MISTS OF PANDARIA* (Blizzard Entertainment, Inc. 2012), the game sits at just under ten million active monthly subscribers. Anne Stickney, *World of Warcraft Down to 9.6 Monthly Subscribers*, WOW INSIDER (Feb. 7, 2013, 4:39 PM), <http://wow.joystiq.com/2013/02/07/world-of-warcraft-down-to-9-6-million-subscribers>.

⁴⁶ See Jun-Sok Huhh, *The "Bang" Where Korean Online Gaming Began*, in *GAMING CULTURES AND PLACE IN ASIA-PACIFIC*, *supra* note 40, at 102, 106-07; Christian McRea, *Watching StarCraft, Strategy, and South Korea*, in *GAMING CULTURES AND PLACE IN ASIA-PACIFIC*, *supra* note 40, at 179.

⁴⁷ TAYLOR, *supra* note 4, at 162.

⁴⁸ *Id.*

⁴⁹ See *id.* at 167-68 (noting that KeSPA agreed that Blizzard had "a right to a 'rational level of usage fee and appeal its support of marketing and promotion for product line-up of Blizzard with continuous investment such as sharing all contents which belong to KeSPA like pro gamers, broadcasting, and sponsorship'").

off relations with KeSPA and secured a *StarCraft* tournament broadcast deal with an alternate licensee.⁵⁰

The dispute between KeSPA and Blizzard might seem to be a minor licensing dispute in a far corner of the world, or perhaps an interesting exercise in sorting the choice of law issues when American game software is used without authorization on South Korean territory. But Taylor correctly identifies the KeSPA controversy as the harbinger of disputes to come, identifying from this incident a series of intellectual property ownership and control issues surrounding e-sport player performances.⁵¹ Particularly with the rise of live video streaming by players,⁵² the issues in the dispute are emblematic of the type of intellectual property problem that will be fundamental to e-sports anywhere: does ownership of game output, for broadcast or other purposes, vest with the entity supplying the software medium or with the player controlling the software? Assuming that similar disputes will sooner or later arise under American law, we can begin answering such questions by examining several issues under copyright.

II. COPYRIGHT

Some years ago, in a different context, I offered a brief outline of the copyright considerations that might go into determining ownership of player avatars, the visual character representation of players within video games;⁵³ more recently, I discussed some copyright aspects of gaming performances in a broader sense.⁵⁴ A handful of other commentators have touched on these questions as well.⁵⁵ As Tyler Ochoa points out, the initially obvious response to such musings is that, whatever the intellectual property status of player characters and performances might otherwise be, the question is most often rendered moot by a game's terms of service (ToS).⁵⁶ Computer games, including online games, are typically fitted with some type of adhesion contract that purports to allocate to the game publisher

⁵⁰ See *id.* at 172.

⁵¹ See *id.* at 171-72.

⁵² See Kaytoue et al., *supra* note 30, at 1181-88.

⁵³ See Dan L. Burk, *Electronic Gaming and the Ethics of Information Ownership*, 4 INT'L REV. INFO. ETHICS 39 (2005).

⁵⁴ See Dan L. Burk, *Copyright and Paratext in On-Line Gaming*, in EMERGING ETHICAL ISSUES OF LIFE IN VIRTUAL WORLDS 33 (Charles Wankel & Sean Malleck eds., 2010).

⁵⁵ See, e.g., W. Joss Nichols, *Painting Through Pixels: The Case for a Copyright in Videogame Play*, 30 COLUM. J.L. & ARTS 101, 117 (2007); Tyler T. Ochoa, *Who Owns an Avatar? Copyright, Creativity, and Virtual Worlds*, 14 VAND. J. ENT. & TECH. L. 959, 991 (2012); see also Erez Reuveni, *On Virtual Worlds: Copyright and Contract Law at the Dawn of the Virtual Age*, 82 IND. L.J. 261, 271-75 (2007) (discussing works of authorship generated within the context of virtual worlds).

⁵⁶ See Ochoa, *supra* note 55, at 964-65.

any copyright or similar rights accruing to the player.⁵⁷ Sometimes these contracts appear as “clickwrap”⁵⁸ when the game software client is loaded onto the player’s computer; in other cases they may appear as ToS notices on the game publisher’s website.⁵⁹ Wherever it appears, the contract would seem to privately nullify potential disputes over ownership.

But as Professor Ochoa has also correctly pointed out, contracts do *not* always settle the question of ownership.⁶⁰ Contracts may fail for a variety of reasons. They may be declared unconscionable or void as against public policy.⁶¹ They may be incomplete, failing to specify the disposition of all the relevant rights, or of all the relevant rights under unforeseen future circumstances. And, as a more fundamental matter, one cannot begin to assess whether a contract has successfully conveyed rights without knowing the nature of the rights purportedly conveyed. Some rights, such as the moral rights granted in many jurisdictions, are inalienable.⁶² Indeed, if no intellectual property interests are generated, either because the player is not the initial owner or because game activity is not the subject matter of such rights, there may be nothing to convey.

This question comes to the forefront of analysis in the case of e-sports. Ownership of casual game performances is largely a moot point, not because a particular game publisher’s ToS is dispositive, but simply because there is usually not enough at stake for anyone to seriously challenge it. Players are often emotionally and perhaps even legally attached to their online depictions,⁶³ but that attachment is seldom monetized, and the cost of clarifying the rights to the average person’s avatar is likely too high to make the venture worthwhile. The landscape changes when the performance has demonstrable worth because the human behind the avatar is a professional player, who attracts the attention of fans, advertisers, and sponsors; and who generates revenue for his team and his league by means of his performances.

A. *Authorship*

The first questions then are what type of work is generated during e-sports play, and how the copyright statute distributes the rights in that

⁵⁷ Dan L. Burk, *Authorization and Governance in Virtual Worlds*, FIRST MONDAY, no. 3, May 2010, <http://firstmonday.org/htbin/cgiwrap/bin/ojs/index.php/fm/article/view/2967/2527>

⁵⁸ Mark A. Lemley, *Terms of Use*, 91 MINN. L. REV. 495, 495 (2006).

⁵⁹ *Id.*

⁶⁰ Ochoa, *supra* note 55, at 965.

⁶¹ *Id.*

⁶² See Neil Netanel, *Alienability Restrictions and the Enhancement of Author Autonomy in United States and Continental Copyright Law*, 12 CARDOZO ARTS & ENT. L.J. 1, 2 (1994).

⁶³ See Burk, *supra* note 53, at 44.

particular kind of work. The logical place to look for an answer is in copyright cases dealing with video games. Unfortunately, extant video game cases that concern player authorship are generally not helpful on the question. For example, in *Stern Electronics, Inc. v. Kaufman*, the Second Circuit considered the question of player contribution in the context of an infringement suit regarding an arcade-type video game.⁶⁴ The defendant in the suit, who produced an allegedly infringing game, challenged the plaintiff's copyright on the grounds that players were in fact the authors of the game's video output.⁶⁵ The court, however, reasoned that the players generated only a variation on the plaintiff's game, and declined to consider what degree of player control would be necessary before the game producer would not have contributed enough to the output to be considered an author.⁶⁶ Subsequent courts facing the same issue adopted a similar stance, emphasizing the limited number of choices available to the player.⁶⁷

A more recent decision, dealing with a desktop game, may point in a different direction, although the reasoning is also somewhat suspect. The dispute in *Micro Star v. FormGen, Inc.* arose out of authorized additions to a computer game.⁶⁸ FormGen, the publisher of the PC game *Duke Nukem 3D*, made available to its players the tools to develop alternate game levels that would provide a more challenging experience beyond those distributed with the game.⁶⁹ FormGen encouraged players to share such "MAP" files via a forum on the company's web site.⁷⁰ The instructions in the MAP files would "call up" and sequence, arrange, and display the electronic source art library images provided with the game.⁷¹ The MAP files thus operated together with other components of the *Duke Nukem* game, but could not themselves independently generate game output.

The alleged infringer, Micro Star, compiled collections of the user-created MAP files from the web site, and marketed them on compact discs without either the authorization of the players who created the files or of the game publisher, FormGen.⁷² FormGen argued that the MAP files constituted authorized derivative works that contained expression from

⁶⁴ 669 F.2d 852 (2d Cir. 1982).

⁶⁵ *See id.* at 855.

⁶⁶ *See id.* at 856-57.

⁶⁷ *See* Midway Mfg. Co. v. Artic Int'l, Inc., 704 F.2d 1009, 1011-12 (7th Cir. 1983); *see also* Williams Elecs. v. Artic Int'l, Inc., 685 F.2d 870, 874 (3d Cir. 1982).

⁶⁸ 154 F.3d 1107, 1109 (9th Cir. 1998).

⁶⁹ *Id.*

⁷⁰ *Id.* at 1109-10.

⁷¹ *Id.* at 1110.

⁷² *Id.* at 1109, 1113.

their game, giving it standing to sue for infringement.⁷³ Micro Star asserted that the files incorporated no protected expression from the game, because they did not entail a concrete or permanent alteration to FormGen's original expression, but only instructions for arranging material from the game library.⁷⁴

In an opinion by Judge Kozinski, the Ninth Circuit rejected Micro Star's defense, reasoning that the alternate game levels constituted a type of "narrative" regarding the Duke Nukem character and his story.⁷⁵ Because the MAP files dictated the placement and sequence of Micro Star's graphics, the court held that they in effect comprised the plot of a new story about Duke Nukem.⁷⁶ In other words, by describing the placement and sequence of game graphics, the MAP files were derivative works incorporating protected expression from the game.⁷⁷ Essentially, the opinion held that a description of a derivative work is equivalent to a derivative work.⁷⁸ Sequencing and arrangement of the game elements via computer coding was recognized as a derivative work, even if sequencing and arranging of the game elements via a joystick or game controller was not.

In previous articles, I have argued that despite the somewhat contradictory holdings of these cases, the question of avatar authorship is probably best characterized as one of adaptation or derivative work, although the fit of this doctrine to the interaction of player and game remains problematic.⁷⁹ Game publishers could be characterized as granting express or implied permission for players to alter or adapt their audiovisual work, resulting in a derivative work of the game as it would be executed without player manipulation.⁸⁰ In a recent detailed analysis of the question, Ochoa has reached similar conclusions, although he suggests that the best fit between avatar authorship and the current copyright statute is to view the avatars as compilations by the players of elements provided by the publisher.⁸¹ Ochoa

⁷³ *Id.* at 1110.

⁷⁴ *See id.* at 1110-12.

⁷⁵ *See id.*

⁷⁶ *See id.*

⁷⁷ *Id.*

⁷⁸ *See id.*; Dan L. Burk, *The Mereology of Digital Copyright*, 18 FORDHAM INTELL. PROP. MEDIA & ENT. L.J. 711, 732 (2008).

⁷⁹ *See* Burk, *supra* note 54, at 47. *But see* Pamela Samuelson, *Allocating Ownership Rights in Computer-Generated Works*, 47 U. PITT. L. REV. 1185, 1212-15 (1986) (arguing that computer-generated works are unlikely to constitute derivative works).

⁸⁰ *See* Burk, *supra* note 57.

⁸¹ *See* Ochoa, *supra* note 55, at 986-87.

further suggests that the game itself may best be characterized as a collective work, comprising a vast collection of compilations.⁸²

Ironically, avatar creation as such may be far less important to e-sports than it is to routine gameplay. Some competitive game platforms, such as *Counter-Strike* or other FPS games, show little of the player's in-game representation.⁸³ Some tournament play may intentionally restrict or minimize personalization of player depictions to equalize the advantages of in-game objects such as unique equipment or attributes. It may not be so much ownership of an avatar as it is ownership of player performance in general that matters for e-sports. Nonetheless, the analysis of proprietary interests in avatars can quickly be extended to player control of the game output generally, which is more likely to be the issue in e-sports.

The question becomes greatly complicated as we look beyond a given character or avatar representation to extended *performances*; not merely the composition and characteristics of a particular avatar, but the sequences of play involving an avatar.⁸⁴ Not all game performances include an avatar representing the player, but all game performances will include suites of graphic composition somehow controlled by the player. Here again, it might be argued that all of the elements in a given sequence of game play are those provided by the developer: the audiovisual work that comprises the game display presents elements drawn from the coded database of the game, and presents them in a sequence and in positions defined by the game code. So, too, sounds of various sorts, generally associated with particular graphics, are drawn from the game's sound files. No extraneous graphics appear in the game display, and all graphics appear at times and places allowable by the game's software instructions.

But the same logic that applies to avatar construction applies to game performance, whether or not an avatar is depicted. Although the game elements displayed or heard during play are drawn from those provided by the game designers, the potential number of combinations is enormous. In controlling the game play, the player makes a large number of selections including which maps to traverse, what avatar movements to enact, what objects to interact with or acquire, what nonplayer characters (NPCs) to engage, and what comments to address to other players. In the kinds of games common to e-sports tournament play, it is unlikely that the designers foresaw all or even most of the possible play combinations. Creative players

⁸² See *id.* at 984.

⁸³ ERNEST ADAMS & ANDREW ROLLINGS, GAME DESIGN AND DEVELOPMENT: FUNDAMENTALS OF GAME DESIGN 242 (2007).

⁸⁴ See Burk, *supra* note 57.

will find combinations of game elements that neither the game designers nor anyone else could have anticipated; indeed, some player activity will be in direct contradiction to what the designers intended.

Consequently, I am generally skeptical that the common law test for joint authorship—an intent on the part of the two authors to create a joint work⁸⁵—can be routinely satisfied in the course of game play.⁸⁶ Game publishers may know, or even intend, that players play their game, but it is not clear that this knowledge rises to the level of intent necessary to produce a joint work. I am even more skeptical that this requirement would be satisfied in the context of e-sports. Game publishers are certainly aware at some level that professional gamers may be using their products as platforms for competitive play, but the kind of relationships these publishers may have with regular, nonprofessional players—such as subscriptions, or even click-through end-user license agreements (EULAs)—are less likely to be present in the professional context. If the game developer is in contact with anyone, it is likely to be the league or tournament organizers who vet and prepare games for competition. In that context, implied permission to use the game materials for competitive play, leading to the generation of an authorized derivative work, seems to me the more plausible analysis.

Additionally, looking “internally” at the operation of the game system,⁸⁷ all these choices and characteristics reside at some level as data recorded in a constantly changing but durable database that provides both a chronicle and a constraint on the status of game elements.⁸⁸ Interaction between the game client and the server database allows constant updating of the positions of virtual objects, the movements of the characters, and the status of their surroundings. It is the record of game status that lends realistic persistence to the virtual world in which play occurs, so that the display retains the same state between sessions, and updated states within sessions. Continuous recording and status updates allow the software to virtually mimic the consequential, determined character of physical experience.

One might argue that the players are engaged in continual creation of new database records as play progresses, although this type of analysis has not necessarily been the approach in past computer game copyright decisions. As a practical matter, copyright law has tended not to differentiate between computer game code and the audiovisual output of the game,

⁸⁵ See 17 U.S.C. § 101 (2006).

⁸⁶ Cf. Samuelson, *supra* note 79, at 1221-24 (arguing against joint authorship for computer-generated works).

⁸⁷ See Orin S. Kerr, *The Problem of Perspective in Internet Law*, 91 GEO L.J. 357, 359-61 (2003) (discussing “internal” versus “external” modes of analysis for cyberlaw).

⁸⁸ RICHARD A. BARTLE, *DESIGNING VIRTUAL WORLDS* 97 (2004).

treating them as two equivalent manifestations of the same work, as if the code was a recording of the audiovisual work, rather than a device for generating an audiovisual work.⁸⁹ One might adopt the same position with regard to a computer game and the underlying database—that the audiovisual work displayed by the game software is merely a different instantiation of the same work. But this characterization of the game code, problematic as it was when applied to early arcade games, has become increasingly absurd as the technology advances. One cannot find the audiovisual work of the game in the game code.⁹⁰ The database for a computer game, especially a multi-player game, contains far more information than is being displayed in any given player's performance. Portions of the performance are generated by the desktop client rather than by the server database. The reasoning of early cases such as *Stern Electronics* has broken down.

B. *Window and Text*

An alternative line of precedent that might be applied to the ownership of e-sports performances concerns ownership of physical sports performances; decisions regarding physical performance might in some respects anticipate disputes over virtual performance. The leading case, *Baltimore Orioles, Inc. v. Major League Baseball Players Ass'n*, arose out of a lengthy dispute between Major League Baseball players and team owners over the control of player performances in broadcast games.⁹¹ The players argued that the broadcasts infringed the rights of publicity in their public representations and personas.⁹² Ironically, in order to maintain their claim regarding the right of publicity, the players were put in the position of denying that their performances constituted copyrightable subject matter.⁹³ The court disagreed on both counts, first stating in a conclusory fashion that the performances were sufficiently original to qualify for copyright, and then denying the right of

⁸⁹ See, e.g., *Stern Elecs., Inc. v. Kaufman*, 669 F.2d 852, 856 (2d Cir. 1982) (holding that fixation of computer game code constitutes fixation of its audiovisual output); see also U.S. COPYRIGHT OFFICE, CIRCULAR 61, COPYRIGHT REGISTRATION FOR COMPUTER PROGRAMS 4 (2012), available at <http://www.copyright.gov/circs/circ61.pdf> (stating that a single registration is sufficient to protect the copyright in computer code and related screen displays). But see *Atari Games Corp. v. Oman*, 888 F.2d 878, 885-86 (D.C. Cir. 1989) (questioning whether registration of computer game code is always sufficient to protect its audiovisual output).

⁹⁰ This has long been a problem with copyright analysis of computer generated output, albeit exacerbated by the complexity of current game software. See Samuelson, *supra* note 78, at 1215 (“[C]omputer-generated works do not incorporate recognizable blocks of expression from the underlying program . . .”).

⁹¹ 805 F.2d 663, 665 (7th Cir. 1986).

⁹² *Id.* at 666-67.

⁹³ *Id.* at 669 n.7.

publicity claims as preempted by federal copyright protection.⁹⁴ The court ultimately held that the broadcasts were copyrightable works, controlled solely by the team owners.⁹⁵

A later Second Circuit opinion considering copyright in sports broadcasts, *NBA v. Motorola, Inc.*,⁹⁶ took a slightly different position. The case is significant in several respects that are relevant to e-sports performances, not the least of which was the court's rejection of a state misappropriation claim to control dissemination of facts and statistics concerning basketball games.⁹⁷ On its way to deciding the question of control over reporting of athletic contests, the court stopped to consider the foundational question regarding copyright in the proceedings of athletic events.⁹⁸ Although agreeing that sports broadcasts qualify for copyright, the *Motorola* opinion⁹⁹ discounts the suggestion in *Baltimore Orioles*¹⁰⁰ that constituent player performances meet the standards for copyright.

This conclusion in the *Motorola* opinion is based on particular assumptions about the nature of copyright authorship and about the nature of sports broadcasts. The court reasoned that athletic events are not "'authored' in any common sense of the word."¹⁰¹ The court opined that athletic contests are usually not scripted; that random, unforeseen, and sometimes surprising occurrences arise out of the contest between players, and that player action is directed toward winning the contest, not toward artistry or aesthetics.¹⁰² Because practical rather than expressive considerations dictate player behavior, their actions fail copyright authorship.¹⁰³ At the same time,

⁹⁴ *Id.* at 668, 674. Preemption of such publicity claims is an issue driving a number of key cases. See, e.g., *Wendt v. Host Int'l, Inc.*, 50 F.3d 18, (9th Cir. 1995) (table opinion) ("At the outset, we wish to make it clear that this is not a preemption case. Plaintiffs' causes of action are not preempted by federal copyright law."). See generally Jennifer E. Rothman, *Copyright Preemption and the Right of Publicity*, 36 U.C. DAVIS L. REV. 199, 248-49 (2002) (examining different preemption rationales for the right of publicity).

⁹⁵ See *Baltimore Orioles*, 805 F.2d at 669-70.

⁹⁶ 105 F.3d 841 (2d Cir. 1997).

⁹⁷ *Id.* at 854.

⁹⁸ *Id.* at 846.

⁹⁹ *Id.*

¹⁰⁰ See *Baltimore Orioles*, 805 F.2d at 669 n.7.

¹⁰¹ *Motorola*, 105 F.3d at 846.

¹⁰² *Id.* Although my focus here is on American law, as I have emphasized, e-sports is an international phenomenon, so it is worth noting that this view is not limited to American courts or the great American pastime; the Court of Justice of the European Union, opining on the copyright in televised UK rugby matches, reached essentially the same conclusion under EU copyright directives. See *Joined Cases C-403/08 & C-429/08, Football Ass'n Premier League Ltd. v. QC Leisure* (Oct. 4, 2011), <http://curia.europa.eu/juris/document/document.jsf?text=&docid=110361&pageIndex=0&doclang=en&mode=lst&dir=&occ=first&part=1&cid=51599>.

¹⁰³ See *Motorola*, 105 F.3d at 846-47.

the court agreed with the *Baltimore Orioles* finding that video camerawork is creative enough to qualify for copyright, vesting copyright for broadcast games in whomever owns or produces the broadcast.¹⁰⁴

These cases highlight two important lines of legal reasoning that bear on the analysis of proprietary rights in e-sports. Tracing the first, we consider the creative contribution of a director or camera operator to the video output in a telecast performance. Where performance of physical sports is concerned, copyright has been sited in the mediated depiction of the contest—specifically, in video capture or broadcast transmission of sports gameplay.¹⁰⁵ The House Report accompanying the 1976 Act similarly indicates that a director's choice of camera angle, focus, editing, and perspective during broadcast would lend copyrightable creativity to sports video.¹⁰⁶ The *Baltimore Orioles* and *Motorola* courts relied on this language to find that copyright attaches to the creative choices made in filming sports—but not necessarily to the choices made by those depicted in the film.¹⁰⁷

This outcome is consonant with the general inclination of U.S. copyright law, which has tended to locate creativity for photographic mediation in the choices made by a photographer while deploying and operating her equipment.¹⁰⁸ Copyright law excludes facts from its ambit, and to the extent that photographs record “facts,” one might expect them to be excluded from copyright. In communication studies, this issue is couched as the inquiry whether a photograph is a window or a text—that is to say, whether the photograph simply displays the state of the world for the reader to observe, as an observer might see by looking through a window, or whether the photograph is a text that requires interpretation to be understood.¹⁰⁹ In the latter case, designation as a text implies that there must be an author in the many senses of that word, whose communication is decoded by the reader.

¹⁰⁴ *Id.* at 847.

¹⁰⁵ *See id.*

¹⁰⁶ *See* H.R. REP. NO. 94-1476, at 52 (1976), reprinted in 1976 U.S.C.C.A.N. 5659, 5665.

¹⁰⁷ *See Motorola*, 105 F.3d at 846 (citing *Balt. Orioles, Inc. v. Major League Baseball Players Ass'n*, 805 F.2d 663, 669 n.7 (7th Cir. 1986)).

¹⁰⁸ *See* Christine Haight Farley, *The Lingering Effects of Copyright's Response to the Invention of Photography*, 65 U. PITT. L. REV. 385, 427 (2004).

¹⁰⁹ *See, e.g.,* Chad Vincent Harris, *Technology and Transparency as Realist Narrative*, 36 SCI. TECH. & HUM. VALUES 82, 190 (2010); *see also* Theresa Levitt, *Biot's Paper and Arago's Plates: Photographic Practice and the Transparency of Representation*, 94 ISIS 456, 457-58 (2003) (discussing early debates over competing theories of transparency and interpretation in photography). Of course, even the “window” metaphor entails some assumptions about the passivity of observing the world through a window; in fact a great deal of interpretation occurs at the retinal and neural level in the act of observing. *See* Dan L. Burk, *Expression, Selection, Abstraction: Copyright's Golden Braid*, 55 SYRACUSE L. REV. 593, 604-06 (2005).

Copyright law has long tended to answer the window-versus-text question in favor of the latter, defining a photograph as a text with an author—in copyright it has been the interpretive reader whose presence must be inferred. Early claims asserting copyright infringement of photographs were answered with the law's version of the window interpretation.¹¹⁰ That approach changed with *Burrow-Giles Lithographic Co. v. Sarony*,¹¹¹ in which the Supreme Court rejected the argument that photographic technology simply records facts about the world, and since copyright does not protect facts, there is nothing in a photograph subject to copyright.¹¹² The Supreme Court held instead that creative choices made by the photographer—the posing of the subject, the lighting, the depth of field and speed of exposure—made the photograph a work of authorship rather than a mechanical record of factual status.¹¹³ Recognition of creativity in the work of a cinematographer or director follows the same logic.

But translating this position to e-sports is problematic. Unlike physical sports, e-sports are always mediated by the software and video apparatus of the game—a spectator can directly observe football or ice hockey competition, but can only observe *Counter-Strike* action as computer output.¹¹⁴ Certainly the video game players can be observed directly, but it is not clear that their physical activity maps onto the role played by physical action in physical play; generally keyboard strokes and mouse movement are not what one considers computer “gameplay.” Neither is the unobserved alteration of voltages the players prompt across various circuits a matter of much interest. Rather, it is the video output they prompt from the machine that constitutes the activity of interest.

This difference in mediation leaves a question as to who or what, under a copyright “director’s choice” analysis, might assume the role of an equivalent directorial counterpart in e-sports. Most e-sports games are programmed to “follow the action,” displaying the area of a map that is immediately relevant to the activity on the screen.¹¹⁵ This perspective will shift and follow the player’s character as it moves around the field of play. Generally the depiction is a wide-angle or overhead viewpoint that allows the player to see not only his own representation, but other nearby features, NPCs, and avatars that may be relevant considerations to his playing choices. Some games, such as the *FIFA* soccer games, may interpose slow

¹¹⁰ See Farley, *supra* note 108, at 403.

¹¹¹ 111 U.S. 53 (1884).

¹¹² See *id.* at 58.

¹¹³ See *id.* at 60.

¹¹⁴ See Hutchins, *supra* note 5, at 857.

¹¹⁵ See ADAMS & ROLLINGS, *supra* note 83, at 243-44.

motion replays, views from alternative angles, or cut-away shots in the fashion of a directed broadcast of a physical match.

Wide-angle or distant views are not the exclusive perspective found in tournament games, however. In an FPS game such as *Counter-Strike*, the perspective of the display follows the perspective of the player; the game displays the view that an individual would see.¹¹⁶ This field of view changes as the player makes choices about movement within the virtual environment.¹¹⁷ Indeed, because *Counter-Strike* is played in teams, the game software will generate five different perspectives on the field of play, depending on what each player would see based upon their position relative to other players and persistent objects in the virtual environment.

The mechanics of game viewpoint leave some doubt about the degree to which the scenes depicted during computer game play can be fruitfully compared to those of movie or television cinematography. The perspectives displayed on the game screen are certainly the result of choices by the player, but generally are not aesthetic choices. They follow automatically from the playing choices and movements initiated by the player. The perspective will certainly shift when a player's avatar is manipulated to jump, but it is unlikely that a tournament player does so in order to give an interesting angle to the view on the screen. Typically, the jump is a maneuver executed to give or gain some advantage in winning the game, and the output viewpoint follows along according to programmed criteria.¹¹⁸

Additionally, the player's choices are always dictated at some outer limit by the parameters of the game software. Whatever view is offered on the screen, whether chosen for aesthetic or strategic purposes, is necessarily one afforded by the game's programmers. Unlike a film or television director, the player often has no option to pull back for a wide-angle shot or overhead view; rather, the availability of any given perspective has been predetermined by a programmer. Certainly a film director's choices are at some level constrained by the equipment she is using; however, the equipment was likely designed with directorial choice in mind. Additionally, there is likely no inclination to believe that camera designers are making authorial choices in crafting a director's tools—but as we have seen, cases assessing computer video games *do* attribute authorial creativity to the game design that crafts players' tools.

¹¹⁶ See *id.* at 242-43.

¹¹⁷ See Witkowski, *supra* note 9, at 357.

¹¹⁸ See ADAMS & ROLLINGS, *supra* note 83, at 244.

C. *Functional Constraints*

The interposition of another author—the programmer—into the generation of game performances raises additional issues. The programmer’s choice regarding perspective may to some extent be pragmatic or utilitarian—such as to fit certain design elements within the space of the computer screen—or, in some cases, it may be an aesthetic programming choice, following the narrative or compositional elements favored by the game design team.¹¹⁹ The programmer may also be anticipating functional choices by the player; there may be moments in play where a different perspective is advantageous or even necessary to a particular game move.

The allocation of copyright may depend upon whether the programmer is determining, or possibly channeling, player functionality such that the constraints upon the perspective in the game constitute utilitarian choices. Copyright law holds that aspects of the work that are imposed or constrained by functional or utilitarian parameters of the medium constitute unprotectable aspects of the work.¹²⁰ Such features are conceived as originating, not intrinsically with the author, but with outward, extraneous influences. This doctrine is presently perhaps most familiar from analyses of expression in computer software, where assessment of copyright in computer programs “filters” out those aspects that are dictated by technical requirements such as the specifications of the hardware, demands of interoperability, and so on.¹²¹ A similar principle is found in the test for “useful articles,” where the utilitarian portion of the article must be either physically or conceptually separable from the expressive features, otherwise the entire article is deemed to fall outside of copyright.¹²²

Functionality is a familiar problem in assessing the originality and expressive content of software and similar works. Software is almost wholly functional, as it constitutes part of a machine, and so finding nonfunctional “expression” is problematic. In this regard, it is critical to distinguish useful or utilitarian works from functional works.¹²³ All copyrighted works have some use—paintings are useful for decorating the walls, books are useful for entertainment on an airplane flight, music is useful for soothing the savage

¹¹⁹ See GREGORY, *supra* note 10, at 5-8 (describing the functioning of typical game design teams).

¹²⁰ See Dan L. Burk, *Method and Madness in Copyright Law*, 2007 UTAH L. REV. 587, 591-92; Pamela Samuelson, *Why Copyright Law Excludes Systems and Processes from the Scope of Its Protection*, 85 TEX. L. REV. 1921, 1932 (2007).

¹²¹ See, e.g., *Computer Assocs. Int'l v. Altai, Inc.*, 982 F.2d 693, 706-10 (2d Cir. 1992).

¹²² See 17 U.S.C. § 101 (2006).

¹²³ See Dennis S. Karjala, *A Coherent Theory for the Copyright Protection of Computer Software and Recent Judicial Interpretations*, 66 U. CIN. L. REV. 53, 59-60 (1997).

breast. Certain copyrighted works, such as maps or encyclopedias, are primarily or wholly utilitarian in this sense; they are not usually intended to be artistic or aesthetic works, but instead to convey information.

But software differs radically from maps or encyclopedias. Objections to software copyright have been periodically met with the argument that “useful” or utilitarian works, such as maps or dance notation or cookbooks can fall within the ambit of copyright.¹²⁴ But such works, however utilitarian they may seem, are not functionally constrained when they are in “use.” When a recipe calls for a cup of flour, the person executing the recipe is free to add a cup of flour according to the recipe, or instead add two cups of flour, or substitute—probably disastrously—a cup of sugar.¹²⁵ Software instructions do not encompass such latitude; if the machine is programmed to add a cup of flour, a cup of flour will be added. Even if some degree of latitude is programmed into the machine—to add a cup of flour, or half a cup, or sugar instead—the program is still limited to those choices. Instructions to a machine are not instructions to a human.

Software copyright cases recognize that a choice imposed by the limitations of the system is not a creative choice, and so may not be an expressive choice.¹²⁶ Yet, as I have pointed out in previous work, American copyright law is heavily invested in the supposition that originality arises from authorial choice.¹²⁷ Certain cases assume that choice is itself a proxy for originality; that free will is fundamental to authorship, so that evidence of the exercise of unconstrained will becomes evidence of originality.¹²⁸ Originality thus becomes something that stands outside the causal order of the universe; expression is only original if it proceeds from the unrestricted will of the author; that which is dictated by external influence by definition lacks originality.¹²⁹

¹²⁴ See, e.g., Jane C. Ginsburg, *Four Reasons and a Paradox: The Manifest Superiority of Copyright over Sui Generis Protection of Computer Software*, 94 COLUM. L. REV. 2559, 2566 (1994) (claiming that copyright protects plenty of works that “behave’ . . . ‘functional[ly],” so long as the work is original and other means of satisfying its purpose are available).

¹²⁵ See Dennis S. Karjala, *Copyright, Computer Software, and the New Protectionism*, 28 JURIMETRICS J. 33, 37 n.3, 41-42 (1987).

¹²⁶ See, e.g., *Computer Assocs. Int’l v. Altai, Inc.*, 982 F.2d 693, 708 (2d Cir. 1992).

¹²⁷ See Burk, *supra* note 120, at 605.

¹²⁸ See *id.* at 598.

¹²⁹ *Id.* at 604.

D. Material Constraints

Closely related to copyright prohibitions on functionality are those related to materiality or state.¹³⁰ Copyright law generally assumes that the features of creative works that are imposed or constrained by nature constitute unprotectable aspects of the work.¹³¹ This outcome stems again from the doctrine of originality—characteristics of the work that arise from the state of the world are not authored; they are deemed not to originate with the inward expression of a creator, but rather from naturally occurring outward conditions.¹³²

This is problematic with regard to the medium of a copyrighted work. Certain copyright cases suggest that variation in the medium of expression, simply arising from the nature of the medium rather than from authorial intent, is sufficient to confer copyrightable originality on a work. For example, in the famous *Alfred Bell & Co. v. Catalda Fine Arts, Inc.* decision, the question arose as to whether unintentional variations that were created in the course of producing mezzotints based on public domain works conferred originality.¹³³ The court found such originality in the stray lines, idiosyncrasies, and even errors unique to the mezzotint engraver.

But a more recent and arguably more prevalent line of cases appears to hold quite differently that variations in the medium that arise from the nature of the medium are not necessarily expression that originates with the author. Here the decision in *L. Batlin & Son, Inc. v. Snyder* is illustrative.¹³⁴ In *Batlin*, a cast-metal toy “Uncle Sam” bank in the public domain was taken as the model for an inexpensive mass-produced plastic version.¹³⁵ Due to differences in the method and medium of manufacture, the mass-produced replicas differed in some minor respects from the cast-metal original.¹³⁶ When produced by the injection of polymer plastics into a mold, certain details of the Uncle Sam figure could not be replicated, or could only be replicated with less definition.¹³⁷ When the plastic version of the bank was itself copied by another manufacturer, the question arose, as in the

¹³⁰ On materiality and digital media, discussing the material grounding of purportedly immaterial media, see Bill Brown, *Materiality*, in *CRITICAL TERMS FOR MEDIA STUDIES* 49 (W.J.T. Mitchell & Mark B.N. Hansen, eds., 2010).

¹³¹ See Alan L. Durham, *Speaking of the World: Fact, Opinion and the Originality Standard of Copyright*, 33 ARIZ. ST. L.J. 791, 792 n.7 (2001).

¹³² See *id.*

¹³³ 191 F.2d 99, 104-05 (2d Cir. 1951).

¹³⁴ 536 F.2d 486 (2d Cir. 1976).

¹³⁵ *Id.* at 488.

¹³⁶ *Id.*

¹³⁷ *Id.*

Alfred Bell case, whether anything original had been taken from the replica, since the replica was based on a public domain work.¹³⁸

Unlike in *Alfred Bell*, the court in *Batlin* held that there was no original, protectable expression in the first generation copy that could be lifted by the second-generation copy.¹³⁹ The differences between the plastic replica and the cast-metal original were held to be either so trivial as to lack originality, or to have been dictated by the nature of the manufacturing process.¹⁴⁰ This treatment winnows authorial choice from consequential outcomes and suggests that, to the extent that a performance is mediated, we might begin to filter out certain features as originating in the medium rather than in the author. For example, the physical qualities of media dictate that a performance will look quite different on videotape as opposed to 35mm or Super 8 film stock.¹⁴¹ The author may engage in a creative choice by picking the medium for the work, but once that choice is made, characteristics arising from the nature or constraints of the medium do not constitute original expression.

Mechanical constraints that form status conditions of e-sports play would seem often to fall into the category of such unoriginal material consequences. For example, if the speed of an avatar's movement is constrained by the bandwidth of the network or by the processing capability of the system where a game is being played,¹⁴² then it is not clear that the speed of the displayed performance can be attributed to authorial originality. Even more likely, if the speed of an avatar's movement is constrained by the game software design that is intended to accommodate a particular bandwidth or data processing speed, the speed appears to constitute a functional consideration that is unlikely to be considered a copyrightable aspect of the avatar's performance.

It is much less clear whether a player's choice to move an avatar slowly, in response to or in anticipation of system constraints, creates a performance aspect that might be eligible for copyright protection. The movement is at some level prompted by equipment constraints. However, the response to the constraint may be original in the copyright sense. The player in such an instance is working with the materiality and constraint of

¹³⁸ *Id.* at 487-88.

¹³⁹ *Id.* at 492.

¹⁴⁰ *See id.* at 488-89.

¹⁴¹ *Cf.* LUCAS HILDERBRAND, INHERENT VICE: BOOTLEG HISTORIES OF VIDEOTAPE AND COPYRIGHT (2009) (discussing the copyright consequences of VHS tape's physical characteristics).

¹⁴² *See* BARTLE, *supra* note 88, at 105-06 (discussing synchronization and lag constraints in game design).

the system to achieve a certain result.¹⁴³ Creative authors do this routinely in material media, working with or around the structure of the substance in which their expression is fixed: a sculptor may use the naturally occurring grain of wood or stone to achieve certain effects in the resulting sculpture; a painter may work the texture of paint or canvas to give a particular visual effect; a filmmaker may choose the optical quality of a lens or grain of celluloid to convey a particular cinematic impression.

The materiality of the computer game system is of course known to experienced players, who may be able to adapt to the qualities of the equipment. Familiarity with the physical affordances of the network can also accrue to player advantage. For example, Taylor notes that skilled players may use the lag time inherent in network play to their advantage in adopting particular moves, tactics, and strategies in sophisticated game play.¹⁴⁴ Although tournament rules dictate some aspects of player equipment and interface, there remains considerable latitude for individualized adaptation.¹⁴⁵ To the extent permitted by tournament rules, e-sport participants will often bring to the match their own input devices, such as a familiar mouse or keyboard, and set these up as their control interface.¹⁴⁶ They may also modify the player interface to a limited extent, for example assigning certain avatar movements or actions to a particular favored key or button, rather than to the default key set by original game configuration.¹⁴⁷

Avatar movement and game output will be influenced, and sometimes determined, by the material affordances of the player's physical equipment, such as the mouse, trackball, keyboard, or other input equipment. Clearly, the speed and sophistication of the data processors used in play can affect the response times and player reactions in the course of a competition. Lag on the network may cause players to see or react too slowly to game conditions. Similarly, player commands are conveyed to the equipment by means of the input devices; once those commands are translated into electrical impulses they travel across electrical circuits near the speed of light, but initial input occurs subject to the limitations of mechanical interaction. Certainly a defective keyboard or sticky mouse can adversely affect play, but players can adjust to such characteristics if they are familiar. This is evidenced both by the practice of players to use their own equipment to the extent permitted

¹⁴³ *Id.* at 107.

¹⁴⁴ TAYLOR, *supra* note 4, at 46-47.

¹⁴⁵ See Witkowski, *supra* note 9, at 353-54.

¹⁴⁶ *Id.* at 365.

¹⁴⁷ See *id.* at 353-54; see also TAYLOR, *supra* note 4, at 64-65, 77.

by tournament rules,¹⁴⁸ as well as by the tournament rules that prevent too many substitutions and dictate certain equipment standards.¹⁴⁹

Players of physical sports certainly make similar choices in real-world sports situations—consciously taking advantage of the natural spring of a baseball or cricket bat, the friction of a clay, grass, or acrylic court surface, or the curvature of a track.¹⁵⁰ Within the rules for equipment standardization, physical athletes may rely on a familiar racket or pair of shoes, customize a surf board, or tape a handle grip.¹⁵¹ But while it is fairly clear that modern copyright law would treat an artist's choice of material—between wood and stone, or between chisel and brush—as a creative and original choice, the logic of *Motorola* dictates that an athlete's choice would not be so regarded.¹⁵² *Batlin* suggests that even the artist's choice, if determined by outside constraints, becomes unoriginal.¹⁵³

E. *The Rules of the Game*

From this perspective, one possible reading of the *Motorola* decision is that physical athletes do not make creative choices, as the proper actions in sports are imposed by external constraints. But not all such constraints are uniform; some constraints are physically determined, and others are relatively arbitrary. The “rules” of the game arise from a variety of convergent sources.¹⁵⁴ A pitcher in baseball is expected to throw the ball into the region of space in front of the batter that is designated as the strike zone. There may be penalties for failing to do so, but there is no physical constraint on whether the pitcher throws the ball through that zone or somewhere else entirely. Indeed, there might be strategic reasons for missing the strike zone. But strategic reasons or no, the pitcher is physically unconstrained regarding this rule of the game; he can throw the ball in any direction he chooses. He can throw the ball toward first base, or up into the stands, or simply choose not to throw the ball at all. He can leave the field and go throw the ball on a different field. Any constraint on his pitching decision is purely cognitive and persuasive, as this imperative lies within the game's ruleset.

¹⁴⁸ TAYLOR, *supra* note 4, at 41-43.

¹⁴⁹ *Id.* at 63.

¹⁵⁰ See Witkowski, *supra* note 9, at 365.

¹⁵¹ See *id.* at 368.

¹⁵² See *supra* text accompanying notes 96-109.

¹⁵³ See *supra* text accompanying note 134.

¹⁵⁴ See Sal Humphreys & Melissa de Zwart, *Griefing, Massacres, Discrimination, and Art: The Limits of Overlapping Rule Sets in Online Games*, 2 U.C. IRVINE L. REV. 507, 522 (2012).

The same degree of freedom is decidedly not present in the movements depicted by computer game output. The game may include a very wide range of permissible player actions, including perhaps moves that flout the rules of the game depicted by the software. Players in the *FIFA* soccer computer game can move off-sides or out of bounds; they are not required to shoot the virtual ball toward their virtual goal. They can send it in another direction, including directing it in the wrong direction for the interests of their team; they can foul another player's avatar, much as they could in the physical game. But the range of permissible actions is ultimately circumscribed by the choices embedded in the game software.¹⁵⁵ Some actions are simply not provided for and so are impossible to execute without altering the software that governs the machine.¹⁵⁶

To be sure, where physical games are concerned, unalterable constraints on player movement exist as well. Clearly physical players are subject to natural constraints on their motions and activities—some actions in real-world games are simply impossible because they violate the laws of physics that govern the material world. Players can only jump so far, or run so fast, or strike so hard. They cannot move through solid objects or move objects without physical contact. The constraints on movement or action depicted within the digital game may seem analogous to such constraints of physics in the everyday world. Certainly all games that depict physical activity will have some software instruction set that in some sense constitutes the “physics” of the virtual world depicted in the computer game.¹⁵⁷

But the determination of such constraints is largely arbitrary, according to the design—or the whim—of the programmer. Many games depict motions, within programmed constraints, that mimic those observed in everyday life.¹⁵⁸ However, the game can equally well be programmed to depict actions that would be impossible under the physics of the material world—indeed, many games do precisely this.¹⁵⁹ Some of these types of constraints can, in a sense, be relaxed for avatars in the game; teleportation or unaided flight or extraordinary strength are commonly depicted as part of the repertoire of avatar skills in some types of games.¹⁶⁰

¹⁵⁵ See KATIE SALEN & ERIC ZIMMERMAN, *RULES OF PLAY: GAME DESIGN FUNDAMENTALS* 142 (2004).

¹⁵⁶ See ADAMS & ROLLINGS, *supra* note 83, at 18.

¹⁵⁷ BARTLE, *supra* note 88, at 316-20.

¹⁵⁸ See GREGORY, *supra* note 10, at 595-96.

¹⁵⁹ See, e.g., JESPER JUUL, *HALF-REAL: VIDEO GAMES BETWEEN REAL RULES AND FICTIONAL WORLDS* 123-30 (2005).

¹⁶⁰ See BARTLE, *supra* note 88, at 324 (dubbing such game mechanics as “ultraphysics”).

However much the limitations on output that have been programmed into the game may resemble the constraints of physics, they are not the constraints of physics. Neither are the constraints in games depicting fanciful actions a relaxation of the laws of physics, or a new type of physics. On the contrary, physical law remains a material constraint on the game regardless of how the game parameters are programmed: the speed of light remains an outside limit for the transfer of data; thermodynamics will cause the machine on which the game is played to generate heat (and very possibly at some point to overheat); friction and inertia will impede the movements of mouse, keys, or other input devices. Indeed, video character movement depends on the physiological limitations of the players: the uncoiling of visual purple in the retina, the diffusion of acetylcholine across synapses, the buildup of lactic acid in muscles.¹⁶¹

At this level, as Yochai Benkler reminds us, lifting a catch-phrase from the science fiction film *The Matrix*, “[T]here is no spoon.”¹⁶² In the movie, the phrase signified the unrecognized hallucination of falsified physical perception;¹⁶³ Benkler redeploys it to remind us of the consensual hallucination of video spaces.¹⁶⁴ However much we are inclined to assign to computer output the virtual depiction of time, space, breadth, and depth, at the end of the day, there is simply a clever user interface that in conjunction with the user’s imagination lends artistic verisimilitude to an otherwise two-dimensional arrangement of pixels.¹⁶⁵ Regarding the output on the screen as

¹⁶¹ See Witkowski, *supra* note 9, at 356 (discussing the kinesthetics of e-sports play).

¹⁶² See Yochai Benkler, *There Is No Spoon*, in *THE STATE OF PLAY: LAW, GAMES, AND VIRTUAL WORLDS* 180, 180 (Jack M. Balkin & Beth Simone Noveck eds. 2006) (emphasis removed).

¹⁶³ The premise of the movie is thus a variation on the persistent philosophical conundrum of “brains in vats,” that is, the problem of whether one could discern if one’s sensory inputs reflect reality or might rather be the manipulations of some advanced, possibly malign, intelligence. See HILARY PUTNAM, *REASON, TRUTH AND HISTORY* (1981); Anthony L. Brueckner, *Brains in a Vat*, 83 J. PHIL. 148 (1986); A.N. Gallois, *Putnam, Brains in Vats, and Arguments for Scepticism*, 101 MIND 273 (1992). The thought experiment regarding manipulated sensory input goes back at least to Descartes’s musings on an “evil genius.” See RENE DESCARTES, *MEDITATIONS ON FIRST PHILOSOPHY* 49-50 (John Vaitch trans., 1901) (1641).

¹⁶⁴ Benkler, *supra* note 162, at 180; cf. WILLIAM GIBSON, *NEUROMANCER* 51 (describing his science fiction concept of “cyberspace” as a “consensual hallucination”). On the pervasive application of spatial metaphors to Internet disputes, see Dan L. Burk, *Legal Consequences of the Cyberspatial Metaphor*, in 1 *INTERNET RESEARCH ANNUAL: SELECTED PAPERS FROM THE ASSOCIATION OF INTERNET RESEARCHERS CONFERENCES 2000-2002*, at 17 (Mia Consalvo et al. eds., 2003); Dan Hunter, *Cyberspace as Place and the Tragedy of the Digital Anticommons*, 91 CALIF. L. REV. 439 (2003); and Mark A. Lemley, *Place and Cyberspace*, 91 CALIF. L. REV. 521 (2003). But see Julie E. Cohen, *Cyberspace As/And Space*, 107 COLUM. L. REV. 210 (2007) (critiquing as incomplete analyses of the Internet as a geographical metaphor).

¹⁶⁵ Cf. W.S. GILBERT, *THE MIKADO* act 2 (1911).

equivalent to physical action on the field obscures the choices that computer games, not to mention programmers, can and cannot make.

Tournament play adds an additional layer of complexity and constraint that intersects with the discussion of materiality above. E-sports leagues typically impose their own set of rules beyond those embedded in the game itself.¹⁶⁶ As we have seen, these run the gamut from specifications on hardware and equipment, to prohibitions on certain moves in the game, to governance of “glitches” or anomalies in the game software that players might otherwise exploit during the course of the contest.¹⁶⁷ Such modifications or moves fall within the determined “rules” afforded by the programmed parameters of the game software, but for various reasons have been prohibited as unfair, or unsportsmanlike, or detrimental to an interesting and accessible contest.

Such tournament rules are in essence supplements to the game’s rules of play and constitute part of a relatively small set of formalized rules governing playing behavior. Formal rules for play are necessarily incomplete, and always require “filling in” by means of custom, agreement, or norms such as “sportsmanship” and “fairness.” Informal shared gaming norms constitute the vast majority of constraints on player behavior and the major social constraint on player choice.¹⁶⁸ The unwritten rules can of course be ignored or broken, unlike the laws of physics and without the intentional action of hacking software constraints. But at some point violating formal rules, violating normative expectations, and altering the game code strays into the realm of cheating.¹⁶⁹ It is important to note that, on the logic of expression, such violations are probably creative from a copyright standpoint, since they effectuate authorial choice—but it is not at all clear that *abiding* by the rules is creative, as compliance constitutes acceptance of an outside, and so unoriginal constraint. Conformity is a choice, but it is arguably less likely to be an expressive choice.

F. *Games as Systems*

Software constrains player choice. Physics constrains player choice. Norms and rules constrain player choice. At the intersection of rules, physics, materiality, and function lies the objection that computer game performances may lie outside copyright because of the tradition that

¹⁶⁶ See TAYLOR, *supra* note 4, at 63.

¹⁶⁷ *Id.* at 63-65.

¹⁶⁸ See *id.* at 62-63.

¹⁶⁹ See MIA CONSALVO, CHEATING: GAINING ADVANTAGE IN VIDEOGAMES 85-86 (2007).

copyright does not encompass “games.” As Bruce Boyden points out, black letter copyright law has long held that games are uncopyrightable, even though the individual elements typically employed in games—such as cards, boards, pieces, and the like—nearly always fall cleanly within copyrightable subject matter.¹⁷⁰ Indeed, at some level, this may constitute the foundation for the rejection of copyright in player performances in the *Baltimore Orioles* case—that the player’s actions were movements in a game, so no copyright could attach to their participation.

The per se rule excluding games from copyright protection harks back to the early twentieth century, and is closely related to the now-codified exclusion of systems and methods from copyright.¹⁷¹ For example, in the paradigm case *Allen v. Academic Games League of America, Inc.*, a developer of board games asserted copyright infringement of his right of public performance due to unauthorized tournament play of his games.¹⁷² The court held that the developer’s public performance right had not been violated because no infringing performance had occurred, dismissing the game developer’s assertions with the puzzling declaration that “games are meant to be ‘played.’”¹⁷³ This somewhat ambiguous statement says little about the propriety of copyright in games, but seems to rest on the rights of game purchasers to play without interference, whether under an implied license, fair use, or some type of exhaustion. It has nonetheless come to stand for the proposition that “games” lie outside copyright.

If a “game” is a set of rules or operational methods, then it runs afoul of the statutory prohibition in Section 102.¹⁷⁴ This objection seems a variation on the argument from physical-or-functional-constraint, but it fleshes out certain dimensions of the problem. Bruce Boyden argues that the exclusion makes sense if games are viewed as frameworks for copyrightable content, rather than as content themselves.¹⁷⁵ He argues that traditional games are, as a general rule, not about the communication of copyrightable content to players; rather, they set the parameters for play to occur.¹⁷⁶ On this view, games are instructions specifying a certain set of moves or activities that will produce one of a range of determined results: particular inputs are tied

¹⁷⁰ See Bruce E. Boyden, *Games and Other Uncopyrightable Systems*, 18 GEO. MASON L. REV. 439, 445 (2011).

¹⁷¹ 17 U.S.C. § 102(b) (2006).

¹⁷² 89 F.3d 614, 616 (9th Cir. 1996).

¹⁷³ *Id.*

¹⁷⁴ 17 U.S.C. § 102(b); cf. *Morrissey v. Procter & Gamble Co.*, 379 F.2d 675, 678-79 (1st Cir. 1967) (holding that text describing contest rules is excluded from copyright).

¹⁷⁵ See Boyden, *supra* note 170, at 476.

¹⁷⁶ See *id.* at 477-78.

to particular outputs or results. Relatedly, Boyden suggests that games may be characterized as “containers” or “shells” into which players can infuse content, but which are not copyrightable because they lack content in and of themselves.¹⁷⁷

Much of this analysis rests on the argument from communication—that the rules or sequences constituting the game do not communicate any message to others. But this argument cannot be quite right. First, as a doctrinal matter, there is no requirement that copyrightable subject matter communicate to anyone. Lack of communication to persons was one of the early objections to copyright in computer operating systems; courts reviewing challenges to computer software copyright quickly concluded that there is no such criterion.¹⁷⁸ So whether a “game” communicates or cannot be an objection.

Second, it should be fairly clear that games, even if they are “containers” or “shells,” *do* communicate. Their difficulty lies rather in the fact that they constitute systems or processes, albeit communicative systems or processes. It may be that the particular assemblage of rules constituting the game must be implemented in order to become meaningful in a particular instance. But the same might equally be said of many clearly copyrightable forms of expression, such as dance or poetry. Ballet might be said to constitute a process or method of dance, specifying certain types and styles of movement—also comprising a shell or container for conveying expression, rather than expression itself. Sonnets or haiku certainly provide a methodological template for construction of poems that might be termed a system or shell for expression.

When considered at this level, it seems clear that such methods or systems for expression, that specify schools or classes of expression, constitute genre.¹⁷⁹ In the same manner, it follows that the designation “game” specifies, or designates, a particular form of genre.¹⁸⁰ Other genres might include the novel, the epic, the romance, and even the business memorandum or appellate

¹⁷⁷ *Id.* at 442.

¹⁷⁸ See, e.g., *Apple Computer, Inc. v. Franklin Computer Corp.*, 714 F.2d 1240, 1248 (3d Cir. 1983); *Williams Elecs., Inc. v. Artic Int'l, Inc.*, 685 F.2d 870, 876-77 (3d Cir. 1982); *Tandy Corp. v. Pers. Micro Computers, Inc.*, 524 F. Supp. 171, 173 (N.D. Cal. 1981).

¹⁷⁹ See JOHN M. SWALES, *GENRE ANALYSIS: ENGLISH IN ACADEMIC AND RESEARCH SETTINGS* 33 (1990); see also Aviva Freedman & Peter Medway, *Locating Genre Studies: Antecedents and Prospects*, in *GENRE AND THE NEW RHETORIC* 1, 9 (Aviva Freedman & Peter Medway eds., 1994).

¹⁸⁰ Some commentators have applied genre theory to games in a formal sense. See KERR, *supra* note 2, at 38-41. Some of the game categories considered here, such as FPS and MMOs, have been considered as specific game genres. See *id.* at 40.

brief.¹⁸¹ Indeed, ballet or haiku are certainly typical genres. Although strict parameters for genre have been elusive, scholars of rhetoric and composition have characterized genre as entailing a “typified social action” displaying recurring commonality of form, content, and context, oriented toward a recognized purpose.¹⁸² The commonalities of genre are recognized by members of a discursive community to effect communication.¹⁸³

Treating works in this way bears some resemblance to the famous “levels of abstraction” test running throughout copyright analysis.¹⁸⁴ By statute and precedent, copyright is not to protect ideas, but only the specific instantiation of expression.¹⁸⁵ Courts and commentators have had some difficulty separating this prohibition against copyright in ideas from the prohibition against copyright in systems and the like.¹⁸⁶ There is indeed a relationship, and here it calls into question the argument from communication; far from lacking a communicative purpose, genre, or systems of creative work, might be said to fail copyright because they communicate at too general a level. Genre might be said in some sense to constitute the “idea” of a particular work, whereas the particular instance of a genre its expression.

Concluding that a generic system or rubric lies outside of copyright requires us to tread cautiously with regard to any given instantiation of the genre. Treating the ballet or sonnet form as an uncopyrightable system does not tell us whether any particular ballet or sonnet constitutes copyrightable expression. Thus the holding in *Allen*¹⁸⁷ may speak to the generalized claim of a game publisher over all performances involving his game, but it does not speak to the potential claim by the player to a particular performance of the game. A given instance of choreography or poetry, so long as it meets the other criteria for copyright, such as originality, can presumably be eligible for copyright, even if the form of sonnet or ballet is not. Similarly, concluding that games, or even the structure of specific games, constitute a type of uncopyrightable system does not necessarily preclude a particular instance of game play from qualifying for copyright.

¹⁸¹ See Joanne Yates & Wanda J. Orlikowski, *Genres of Organizational Communication: A Structural Approach to Studying Communication and Media*, 17 *ACAD. MGMT. REV.* 299, 300 (1992).

¹⁸² See Carolyn R. Miller, *Genre as Social Action*, 70 *Q.J. SPEECH* 151, 156-57 (1984).

¹⁸³ See *id.* at 157.

¹⁸⁴ I have discussed elsewhere the interconnection between such levels of abstraction and copyright’s functionality doctrine. See Burk, *supra* note 120, at 594-95; see also Samuelson, *supra* note 119, at 1941.

¹⁸⁵ 17 U.S.C. § 102 (2006).

¹⁸⁶ See Burk, *supra* note 120.

¹⁸⁷ *Allen v. Academic League Games of Am., Inc.*, 89 F.3d 614, 616 (9th Cir. 1996).

The logic of this result in fact fits relatively well with the incentive policy of copyright—rewarding individual creativity while preserving the opportunity for new forms to enrich the public discourse.¹⁸⁸ New genres arise from imitation of the generalized features of previous creative works;¹⁸⁹ protection at too general a level would prevent follow-on authors from working within a certain style, school, tradition, or genre. At the same time, copyright can protect against literal or even close copying of a particular instance of the genre. The doctrines of substantial similarity¹⁹⁰ and rights over derivative works¹⁹¹ would permit the exclusion of imitators that mimic the particularized expression of a given work within a genre—but treating the genre as a system or method of creation prevents follow-on creators from being completely excluded from the style or form of expression. We can grant copyright in the novel *Shane* while allowing others to write their own novels in the “western” genre.

If one creator supplies the costumes, make-up, props, and scenery for a ballet, and performers then maneuver those items through the spatial and temporal confines of the recital stage, the resulting performance should be eligible for copyright as an instance of ballet, even if ballet as a dance specification cannot be the subject of copyright. The same analysis should follow for a given instance of *StarCraft* or *Counter-Strike* play; a particular sequence of graphics, supplied by the game developer, maneuvered by players through the spatial and temporal confines of the computer screen should constitute copyright-eligible subject matter. In fact, ballet may not be the best analogy in this case, since ballet tends to be tightly choreographed beforehand, and a game of *StarCraft* will not be. Gaming might be better compared to some type of improvisational dance in which the performers choose their steps within a large but finite set of permissible movements.

The implication of this reasoning is that, if players cannot claim as original certain aspects of their performances, neither can the game developer. Treating game structure as a system restricts developers’ copyright claims concerning aspects of player performance that constitute the rules of the game—bearing in mind that the rules may be difficult to distinguish from

¹⁸⁸ See generally Dan L. Burk, *The Law and Economics of Intellectual Property: In Search of First Principles*, 8 ANN. REV. L. & SOC. SCI. 397, 402-03 (2012) (describing incentive theories for copyright and similar systems).

¹⁸⁹ Miller, *supra* note 182, at 157.

¹⁹⁰ 3 WILLIAM F. PATRY, PATRY ON COPYRIGHT § 9:78 (2011).

¹⁹¹ 17 U.S.C. § 106(2) (2002); see also Pamela Samuelson, *The Quest for a Sound Conception of Copyright’s Derivative Work Right*, 101 GEO. L.J. (forthcoming 2013), available at <http://ssrn.com/abstract=2138479>.

the expression structured around them, and that the rules of a computer game will go largely unstated, as they are embedded in the game software itself. The game developer may have specified the rules of the game within which players compete, but to the extent that those rules manifest themselves in player performance, the developer cannot claim them as original expression—and of course neither can the player.

This leaves then the question as to whether in any instance the content of the “shell” constitutes copyrightable expression. It may be, as we have seen, that such content is dictated by function, including the nature of the medium, such that some or perhaps all of it cannot be. But the answer cannot depend upon advance preparation, nor on the players’ intent. The *Motorola* observation that sporting events have unscripted and undetermined outcomes¹⁹² is undoubtedly correct, yet it is difficult to see how this is relevant to the question of authorship. Nothing in copyright law requires that works of authorship be prepared or calculated in advance of fixation. Improvisational music or dance or theatre, or for that matter impulsive painting or writing, are not excluded from copyright simply because they are unplanned or lack premeditation.

Indeed, even where the basic structure of a play, song, or other work *is* prepared, inspired and spontaneous additions give individual style to its performance and are often the mark of artistic genius. It is just such creative flourishes that add the original expression to make a new version of a public domain work protectable, or move slavish imitation into the category of derivative work.¹⁹³

The converse seems equally problematic. Certain types of sports are unquestionably scripted in advance—not the contrived theatrics of professional wrestling, but true athletic performances, such as figure skating. There is no question that figure skating is competitive, and every premeditated movement is intended to garner the highest possible score in a physical contest. There seems no good reason for excluding a figure skating routine from recognition as a work of authorship, or, in the alternative, to exclude it from the category of sports by virtue of its choreography by designating it as a type of dance. For that matter, there are competitive tourneys in dance and music and other performing arts. Artistic skill and competitive intent are not strangers.

¹⁹² *NBA v. Motorola, Inc.*, 105 F.3d 841, 846 (2d Cir. 1997).

¹⁹³ *See* 17 U.S.C. § 103(b) (2006). Or, we might add, that addition of such original expression in a case such as the compulsory license for musical “covers,” could take the new version out of the scope of the compulsory license into the category of unauthorized infringement. *See id.* § 115(a)(2) (authorizing compulsory license for covers of musical compositions so long as the cover does not change the “fundamental character of the work”).

Expression, rather than intent, is the proper metric for copyrightability. Authorship in copyright requires original expression.¹⁹⁴ The first requirement is that the expression originates with the putative author.¹⁹⁵ There should be little question that the conduct and movements of athletic event participants originate with those participants—they may be repetitions of past movements or strategies, adapted to a new and changing situation, but they are certainly selected, sequenced, and executed by the players. No two athletic games are ever played exactly the same way, and there is no proclivity to try to reproduce the exact occurrences of previous games. This is copyright originality.

III. ALTERNATE REGIMES

I have to this point focused on copyright as the regime most likely to be asserted in considerations of control or ownership over e-sports performances. Copyright is likely to be the lynchpin in any dispute, and a careful analysis of copyright teases out the peculiarities of computer-mediated performances. But other proprietary rights will certainly be relevant as well. To fill out the picture, I briefly consider two additional regimes of proprietary rights that also bear on ownership and control of such mediated performances: rights of publicity and neighboring rights. Although doctrinally distinct from copyright, these regimes sometimes complement and sometimes overlap with the copyright regime. Each probably deserves a separate article detailing how it may apply to e-sports, but I include a brief treatment here to illustrate how the questions of mediation raised in the previous Part also permeate alternative rights systems.

A. *Rights of Publicity*

In the United States, state law frequently recognizes a right of publicity allowing public figures, including athletes and entertainers, to control commercial exploitation of their likenesses or other distinctive attributes.¹⁹⁶ Such rights were at issue in both the *Baltimore Orioles*¹⁹⁷ and *Motorola*¹⁹⁸ cases. Although distinctive identifiers such as names fall under the right of publicity, applicability of such rights is often clearest when the personal

¹⁹⁴ See *id.* § 102(a).

¹⁹⁵ *Id.*

¹⁹⁶ See, e.g., Mark P. McKenna, *The Right of Publicity and Autonomous Self-Definition*, 67 U. PITT. L. REV. 225, 232-33 (2005).

¹⁹⁷ See *Balt. Orioles, Inc. v. Major League Baseball Players Ass'n*, 805 F.2d 663, 674 (7th Cir. 1986).

¹⁹⁸ See *NBA v. Motorola, Inc.*, 105 F.3d 841, 849 (2d Cir. 1997).

trait at issue relies on material, usually bodily, portrayal. The applicability of such rights seems much less clear when the trait or characteristic arises from technological or other mediated portrayal, potentially impeding the application of such rights to e-sports.¹⁹⁹

Certainly physical athletes have been active in asserting rights of publicity over their computer game representations. One recent example involves a series of pending class action claims by former NFL players against the developers of the popular *Madden*²⁰⁰ football video game.²⁰¹ The game offers a virtual simulation of American professional football. The *Madden* game includes a feature that allows players to recruit virtual “historical” teams onto the screen, comprised of avatars with capabilities and statistical profiles mimicking those of past NFL teams—say, those of the Dallas Cowboys or Green Bay Packers circa 1969. No actual player names or jersey numbers are displayed, but the histories of actual players are employed, and despite the lack of names, the avatars could be connected with past NFL players by knowledgeable fans (or by those who are willing to do a little research).²⁰²

Evocation of athletes’ identities in online “fantasy leagues” has been another point of contention.²⁰³ Such virtual tournaments depend upon comparisons of physical athletes’ real-world statistical profiles.²⁰⁴ Athletic statistical profiles are often distinctive, and may evoke or characterize the identity of an actual public figure. Many sports fans can quickly name a player from his or her statistical profile. But it remains unclear whether a player’s statistical record, without more, constitutes enough of a public persona to invoke the right of publicity; at least one court has held that bare numbers are not enough.²⁰⁵

However, these cases are in some sense the inverse of the publicity question in e-sports; claims by the NFL or other sports figures against game

¹⁹⁹ See Dan L. Burk, *Information Ethics and the Law of Data Representations*, 10 ETHICS & INFO. TECH. 135, 139-40 (2008) (discussing the right of publicity vis-à-vis digital personae).

²⁰⁰ For the latest game in this franchise, see MADDEN NFL 13 (EA Sports 2012).

²⁰¹ See *Davis v. Elec. Arts Inc.*, No. 10-3328, 2011 WL 2621626, at *2 (N.D. Cal. July 5, 2011).

²⁰² Similar litigation involves the representation of current and former college athletes in video games. See, e.g., *Hart v. Elec. Arts, Inc.*, 808 F. Supp. 2d 757, 784 (D.N.J. 2011) (dismissing right-of-publicity claims brought by a college football player whose likeness was used in video games because the use of the player’s image was transformative); see also Jennifer E. Rothman, *The Inalienable Right of Publicity*, 101 GEO. L.J. 185, 196 (2012).

²⁰³ See, e.g., *C.B.C. Distrib. & Mktg., Inc. v. Major League Baseball Advanced Media, L.P.*, 505 F.3d 818, 820 (8th Cir. 2007).

²⁰⁴ See Burk, *supra* note 199, at 136.

²⁰⁵ *C.B.C. Distrib. & Mktg., Inc. v. Major League Baseball Advanced Media, L.P.*, 443 F. Supp. 2d 1077, 1107 (E.D. Mo. 2006), *aff’d*, 505 F.3d 818.

designers and fantasy sports leagues assert the distinctive identity gained in physical activity against re-depictions of those characteristics in an audiovisual work. But the potential for right of publicity claims in e-sports would likely involve an assertion of the distinctive identity gained through virtual activity in an audiovisual work itself. This is, again, not to lose sight of the individual behind the video depiction, hunched over a console manipulating input devices. But our primary concern here is with characteristics that are attached to the game output; it is entirely possible that the player has distinctive characteristics in physical space that would lend themselves to rights of publicity, but that is for the most part a separate matter from rights that would confer an interest in a performance.

Players in professional computer gaming often have screen names that are highly recognizable to their fans—in some cases, these are individual names such as “Fatal1ty”²⁰⁶ or “Stork;”²⁰⁷ in other cases there may be team names such as “Fnatic”²⁰⁸ or “Complexity.”²⁰⁹ Often these names are rendered in the distinctive “leet” or “txt” symbolization drawn from SMS or Internet Relay Chat (IRC) texting, where letters are replaced by numbers of similar shape or with homonymic pronunciation.²¹⁰

Physical athletes may be readily identified by a range of characteristics: by name, by jersey number, by features including build, or sometimes by a particular slogan, saying, or tag-line. Actors and other artistic performers are additionally often identified by association with a particular role, or by a style of dress or costume. These characteristics may not have direct e-sports cognates. Application of publicity rights to e-sports requires us to consider what aspects of player identity might be sufficiently distinctive to accrue rights against commercial exploitation.

The appearance of game avatars may seem a natural place to look for distinctive characteristics, and the individuality of avatars has been the subject of considerable commentary.²¹¹ However, avatar originality may be less important to e-sports professionals than it is to casual players. The ability to tailor representation of the player in play may vary according to

²⁰⁶ TAYLOR, *supra* note 4, at 43, 85.

²⁰⁷ *Id.* at 66-67.

²⁰⁸ *Id.* at 69-70.

²⁰⁹ *Id.* at 235.

²¹⁰ On the substitution of letters in computer mediated texts—graphostylistics and neography—see generally Jannis Androutsopoulos, *Language Change and Digital Media: A Review of Conceptions and Evidence*, in STANDARD LANGUAGES AND LANGUAGE STANDARDS IN A CHANGING EUROPE 145 (Kristiansen Tore & Nikolas Coupland eds., 2011); and Tim Shortis, *REVOICING TXT: Spelling, Vernacular Orthography, and “Unregimented Writing,”* in CONNECTED MINDS, EMERGING CULTURES: CYBERCULTURES IN ONLINE LEARNING 225-47 (Steve Wheeler ed., 2009).

²¹¹ See *supra* notes 79-82 and accompanying text.

the parameters of the particular game chosen for a tournament. In some cases, the game may allow a player's avatar to be sufficiently distinctive so as to constitute a highly personalized addition to the performance, but in many other instances, there may be little or no avatar personalization. In some competitive games, such as FPS games, the player's representation will not be seen in the player's game output, but only from the viewpoint of teammates or opponents. Some games may have no player representation at all. Other games, as previously noted, may be restricted as to personalization in tournament play.

Thus, the presence of distinctive characteristics may vary depending on the game in question. In particular, given that much of the player-controlled representation in e-sports is activity directed toward securing a win, we might ask whether there is anything sufficiently distinctive about a player's game performance to warrant individualized proprietary consideration, or whether all competent performances look the same. Ethnographic work by Taylor suggests that the answer regarding individuality of performance may be yes; professional players claim to be able to recognize at least certain other players by their distinctive playing style.²¹² At the same time, it may be difficult to support a publicity claim solely on depiction of style; in one early case, a court dismissed right of publicity claims by a plaintiff on whose martial arts style a video arcade game had been modeled because his movements were insufficiently distinctive.²¹³

The difficulty in an appeal to publicity is that computer gaming performances do not directly portray the player, but typically portray some representation associated with the player. Physical athletes may gain much of their recognition after mediation via television, radio, or print depictions, but the effort and skill exerted can be and is observed directly in tangible play. Certain physical performers may gain publicity by a mediated representation—for example, actors portray characters with which they may become associated. Typically in such instances courts have said that rights of publicity only vest when an individual's natural identity becomes indistinguishable from a character portrayed.²¹⁴ This blending seems to occur infrequently, as courts tend to find that the mediated portrayal, such as a fictional character—

²¹² See TAYLOR, *supra* note 4, at 109-10.

²¹³ *Pesina v. Midway Mfg. Co.*, 948 F. Supp. 40, 41-42 (N.D. Ill. 1996); see also *Ahn v. Midway Mfg. Co.*, 965 F. Supp. 1134, 1136, 1137-38 (N.D. Ill. 1997) (holding, on the basis of the *Baltimore Orioles* decision, that plaintiffs' right-of-publicity claims to their depiction in the video game *Mortal Kombat* were preempted by federal copyright law).

²¹⁴ See *McFarland v. Miller*, 14 F.3d 912, 914 (3d Cir. 1994).

which may be the subject of separate copyright—remains separate from the persona of the portrayer.²¹⁵

Thus far, perhaps the closest parallel to virtual representation may be that from *Wendt v. Host International Inc.*²¹⁶ In *Wendt*, two actors who had appeared on the television series *Cheers* challenged the inclusion in licensed, *Cheers*-themed bars of animatronic figures resembling their television characters.²¹⁷ Although the figures were not close likenesses of the actors, one was depicted as overweight, and the other was dressed as a postman, as were the characters the plaintiffs portrayed in the television show.²¹⁸ The figures were given different names than the television show's characters.²¹⁹ It was also clear to the court and to the litigants that the producer of the show held copyright in the shows and probably in the characters depicted in the shows.²²⁰ The actors claimed the robots were an unauthorized appropriation of their likenesses, implicating California's right-of-publicity laws.²²¹ Ultimately, the Ninth Circuit held that the actors had at least a colorable right-of-publicity claim under California law.²²²

Although the *Wendt* decision involves something like a virtual representation—animatronic representations of characters played in a television performance—the Ninth Circuit's conclusion was strongly premised on the physical or conceptual resemblance between the figurines and the actors that would evoke the actor's public persona.²²³ Such resemblances that occur in physical performances may not be present in e-sports performances, as the performance is not necessarily based on the player's physical appearance, nor on any physical characteristic of the player. As in the copyright analysis, the work of the "cyberathlete" is certainly physical, but recognition of that work occurs only after depiction via the game medium.

²¹⁵ See *Lugosi v. Universal Pictures*, 603 P.2d 425, 432 (Cal. 1979) (Mosk, J., concurring); see also *McFarland*, 14 F.3d at 920 n.15 ("We think the case in which an actor becomes known for a single role such as Batman is different . . . [Adam] West's identity did not merge into Batman and [Johnny] Weismuller did not become indistinguishable from Tarzan.").

²¹⁶ 50 F.3d 18 (9th Cir. 1995) (table opinion).

²¹⁷ *Id.* at *2-*3.

²¹⁸ *Wendt v. Host Int'l, Inc.*, 125 F.3d 806, 809 (9th Cir. 1997).

²¹⁹ See *id.* at 811.

²²⁰ *Id.*

²²¹ See *id.* at 810 (explaining the appellants' cause of action under CAL. CIV. CODE § 3344).

²²² *Id.* at 811-12.

²²³ *Id.*

B. *Neighboring Rights*

As the holdings in the *Baltimore Orioles* and *Motorola* sports broadcast cases indicate, copyright in fixed performances tends to vest in the individual capturing or recording the event, not in those who are engaged in the event.²²⁴ The entity responsible for the material fixation tends to be viewed as the “author.”²²⁵ But clearly much of the creative content in a fixed performance arises from the contribution of the performer. Thus it is feasible to recognize a separate and parallel set of exclusive rights that are granted to performers rather than to “authors” when their performances are fixed.²²⁶ Such “neighboring rights” have long been common in many countries of the world, such as nations of the European Union, but have not been part of the American system of intellectual property.²²⁷ However, in 2012, the United States became signatory to a new international treaty harmonizing and promulgating such rights.²²⁸

Although the exact shape that performers’ rights might take under American law remains unknown until the treaty’s obligations are implemented under domestic law, it would be reasonable to assume that they would be congruent with the requirements of the treaty. Consequently, although the treaty raises numerous issues, I will briefly discuss the likely impact of performance rights as provided under the treaty language on the concepts drawn out in the previous analysis. In a number of instances, the treaty could provide separate resolution of questions left unresolved under copyright or rights of publicity.

The treaty provides for performers in audiovisual works to acquire a range of exclusive rights controlling the fixation, distribution, and communication to the public of their performances in audiovisual works.²²⁹ The

²²⁴ See *supra* text accompanying notes 91-105.

²²⁵ See, e.g., *Balt. Orioles, Inc. v. Major League Baseball Players Ass’n.*, 805 F.2d 663, 668 (7th Cir. 1986).

²²⁶ See Michael Gruenberger, *A Duty to Protect the Rights of Performers? Constitutional Foundations of an Intellectual Property Right*, 24 CARDOZO ARTS & ENT. L.J. 617, 631-32 (2006).

²²⁷ See George H.C. Bodenhausen, *Protection of “Neighboring Rights”*, 19 LAW & CONTEMP. PROBS. 156, 157 (1954). Other “neighboring” or “related” rights adjacent to copyright include performance rights for phonogram producers and broadcasters. See Shyamkrishna Balganes, *The Social Costs of Property Rights in Broadcast (and Cable) Signals*, 22 BERKELEY TECH. L.J. 1303, 1309 (2008). Although the concept of neighboring rights for broadcasters is likely relevant to e-sports, an exploration into this concept is outside the scope of this Article.

²²⁸ Beijing Treaty on Audiovisual Performances, *supra* note 6. The Senate has yet to ratify this treaty. John Langlois, *WIPO Beijing Treaty on Audiovisual Performances Signed*, INTELL. PROP. BRIEF (June 30, 2012), available at <http://www.ipbrief.net/2012/06/30/wipo-beijing-treaty-on-audiovisual-performances-signed>.

²²⁹ Beijing Treaty on Audiovisual Performances, *supra* note 6, arts. 5, 8, 11.

treaty also provides for moral rights of attribution and integrity in audiovisual performances.²³⁰ Perhaps most significantly for the discussion of e-sports, the treaty states, “Performers shall enjoy the exclusive right of authorizing the direct or indirect reproduction of their performances fixed in audiovisual fixations, in any manner or form.”²³¹ An agreed-upon statement accompanying the treaty specifies that digital reproductions are specifically contemplated under this provision.²³² Additionally, although contracting states can limit or opt out of the provisions granting broadcast rights to performers,²³³ in language tracking that of the American copyright of public performance²³⁴ the treaty provides an unqualified exclusive right to performers for streaming or pay-per-view-type transmissions, which are likely the most pertinent forms of transmission for e-sports.²³⁵

As a practical matter, the treaty may be expected to change very little in the current practices or conventions of established entertainment industries, such as motion picture production. The treaty provides for most of the rights it contemplates to be alienable via contract. Aside from a few exceptional performers who may have the market leverage to negotiate other terms, it seems likely that assignment of the neighboring rights provided in the treaty will become a routine part of boilerplate in entertainment employment contracts.

But recall that the situation for computer gamers is somewhat different than that of most performers, at least with regard to the question under consideration. It may be that e-sports professionals, if they accrue neighboring rights, will routinely sign such rights over to their team owners, or to a league, who will negotiate broadcast rights or streaming licenses. Perhaps e-sports will develop so that players will directly license such rights to broadcasters. However, our question here has been what rights accrue to players vis-à-vis game developers—neighboring rights accruing to players would have to be allocated to the game owner via a separate contract. In the case of game subscribers, or everyday game purchasers—who might very well also be covered by the neighboring-rights regime of the Audiovisual

²³⁰ *Id.* art. 5.

²³¹ *Id.* art. 7.

²³² *Id.* art. 7 n.6.

²³³ *Id.* art. 11.

²³⁴ 17 U.S.C. § 101 (2006) (“To perform or display a work ‘publicly’ means . . . to transmit or otherwise communicate a performance or display of the work . . . whether the members of the public capable of receiving the performance or display receive it in the same place or in separate places and at the same time or at different times.”).

²³⁵ Beijing Treaty on Audiovisual Performances, *supra* note 6, art. 10.

Treaty²³⁶—such a contractual transfer might occur by agreement to the initial EULA or ToS presented before access to the game is granted. But as already noted, this contract may not be present in the case of e-sports competition.²³⁷

A key question, proceeding from the previous discussion, might be whether the terms of the treaty apply to player performances in computer games, given that the treaty seems to have been drafted and negotiated primarily with cinematic theater actors in mind. As we have noted, gaming professionals stand in an unusual circumstance with regard to their performances. Computer game players never actually appear in the audiovisual works they create, and although they may be closely identified with their characters or avatars, the displayed performances by avatars might not be considered performances by players.

The treaty defines performers as “actors, singers, musicians, dancers, and other persons who act, sing, deliver, declaim, play in, interpret, or otherwise perform literary or artistic works or expressions of folklore.”²³⁸ Even if e-sports competitors are not conventional actors, they should, at a minimum, fit into the category of “other persons” who “perform literary or artistic works.”²³⁹ Here e-sports departs from physical sports. Whereas many of the sports players discussed in the previous section, such as baseball or tennis players, are probably not performing a literary or artistic work in the course of competition, e-sports players are unquestionably generating such a work; indeed, they can only play by generating a literary or artistic work.

The treaty appears to preempt the question of scripting that was considered in the copyright broadcast discussion above.²⁴⁰ Players of physical sports may not fall under the treaty language because they are not performing a literary or artistic work. But for those who do perform such works, the lack of a defined or predetermined script should not be an impediment to recognizing performance rights. An agreed statement accompanying the treaty specifies that the performers covered by the treaty include those engaged in improvisational or unscripted performances.²⁴¹ Baseball action may not constitute a literary or artistic work, but this is a different question under the treaty than lacking a script.

²³⁶ See *id.* art. 2 (defining performers broadly to include “other persons who . . . play in, interpret, or otherwise perform literary or artistic works or expressions of folklore”).

²³⁷ See *supra* Section II.A.

²³⁸ Beijing Treaty on Audiovisual Performances, *supra* note 6, art. 2.

²³⁹ *Id.*

²⁴⁰ See *supra* Section II.F.

²⁴¹ Beijing Treaty on Audiovisual Performance, *supra* note 6, art. 2 n.3.

Even with regard to conventional cinema, one would expect the treaty terms to apply to mediated performances. One might for example ask whether neighboring rights under the treaty would accrue to puppeteers or marionetteers—the performance of the puppet character would have to be recorded as an audiovisual work, but this would not be unusual. It would be surprising if Frank Oz, who has staged puppet performances before the camera ranging from *The Muppets*' Fozzie Bear to *Star Wars*'s Jedi Master Yoda, did not qualify for neighboring rights in the cinematic antics of the characters he controls.

It is probably worth noting in this regard that the difference between a multiplayer computer game and a cinematic movie, considered as audiovisual works, is in the process of diminishing and may before long disappear altogether. Already a genre of “machinima” has developed, in which the characters and settings of multiplayer games are used to act out the scripts for short movies.²⁴² But even on the theatrical side of audiovisual production, much of what is seen in current feature films is computer-generated graphics, including backgrounds, objects, and character features. Whether Andy Serkis portraying Gollum in *The Lord of the Rings* or Mark Ruffalo portraying the Incredible Hulk in the *Avengers*, actors in front of green screens increasingly provide the basis for computer-enhanced or animated characters. Thus cinema is now to some extent the inverse of computer games: rather than graphic artists providing visual materials for manipulation by physical players, physical actors provide motion and context for manipulation by graphic artists. If the terms of the Audiovisual Treaty cannot be applied to computer game performances, it may be increasingly difficult to apply them to cinematic theater performances as well.

CONCLUSION

Much of my analysis here has been grounded in the materiality of intellectual property and the tension of such materiality with mediation of player performance in computer gaming. Copyright assumes fixation in a tangible medium to which discrete rights can be assigned, but at the same time excludes from its ambit the functional characteristics inherent in physical instantiation. Rights of publicity and neighboring rights share this assumption

²⁴² See Matt Kelland, *From Game Mod to Low-Budget Film: The Evolution of Machinima*, in *THE MACHINIMA READER* 23, 23-35 (Henry Lowood & Michael Nitsche eds., 2011). See also generally Henry Lowood, *High-Performance Play: The Making of Machinima*, in *VIDEOGAMES AND ART* 59 (Andy Clarke & Grethe Mitchell eds., 2007).

of physical persona. When the persona, performance, or work becomes digitized, the conceptual gaps in the relevant legal doctrines are exposed.

Taylor identifies this same tension between the physical and the virtual as a fundamental quandary for e-sports.²⁴³ The culture, practice, and business of traditional sports are built around the features of physical location; physical sports teams rely on the geographic loyalty of spectators that identify with a locally branded team; locations for stadiums and receipts from spectator attendance constitute important sources of revenue; construction of such venues is typically dependent on tax and subsidy benefits from local communities. The way forward for virtual play with a distributed audience is less clear, leaving the future configuration of e-sports in some doubt. However e-sports evolves, it cannot adopt quite the business, social, or legal posture of its physical analogs. Thus, investigation of proprietary rights in e-sports provides a window not only into an instance of evolving Internet commerce, but into the conceptual configuration of our current systems of intellectual property.

²⁴³ See TAYLOR, *supra* note 4, at 209-10.