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THE STATE OF PLAY

BETH SIMONE NOVECK*

Before the World Wide Web, science fiction writer Neal Stephenson conceived of the Metaverse,[1] the first virtual world. The imaginary Metaverse is the model — the city on a hill — that programmers have been attempting to recreate for the "real" virtual world. In Stephenson's vision, the Metaverse was not just a place for play. His Dickensian main character, Hiro Protagonist, plugs into a virtual office where he interacts with other characters as well as with artificial intelligence *daemons*.[2]

We are just beginning to realize Stephenson's fantasy with virtual (sometimes called digital or synthetic) worlds that are currently used for play and social interaction but soon will be widely adopted as spaces for research,[3] education,[4] job recruiting,[5] and work life.[6]

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1. NEAL STEPHENSON, SNOW CRASH (1992).

2. For more on artificial intelligence characters, see STEFAN HELMREICH, SILICON SECOND NATURE: CULTURING ARTIFICIAL LIFE IN A DIGITAL WORLD (1998).

3. Hunter G. Hoffman, *Virtual Reality Therapy*, SCIENTIFIC AMERICAN, August 2004, at 58-65 (describing treatment advances in the use of virtual reality technology where patients get relief from pain or overcome phobias through immersion in a virtual world).

4. Aaron Delwiche, *Massively Multiplayer Online Games in the College Classroom*, N.Y.L. SCH. L. REV. (online publication) (2004), *at* http://nyls.edu/lawreview (referencing Turkle on the psycho-social moratorium of contemporary cyberspace); *see also* J.P. GEE, WHAT VIDEOGAMES HAVE TO TEACH US ABOUT LEARNING AND LITERACY (2003). The virtual world, Second Life, created by Linden Lab, reports that six university classes in disciplines ranging from urban planning to theatre use the gamespace to conduct class. Interview with Robin Harper, Senior Vice President of Community and Marketing, Linden Lab, in San Francisco, Cal. (Apr. 29, 2004).

5. U.S. Army, America's Army Videogame *at* http://www.americasarmy.com/. *See* Zhan Li, *The Potential of America's Army as Civilian Public Sphere* (2004) (unpublished Master's Thesis, Massachusetts Institute of Technology), *available at* http://www.gamasutra.com/education/theses/20040725/li_01.shtml (login required). "The development costs of the game - although moderately high compared to the average high-end commercial PC game - are marginal when considered in relation to the US Army's

Virtual worlds are the cyberspace we will "inhabit" within the next ten years. Our gateway to the Internet will look more and more like a videogame and less like a book.[7] In light of the fact that the U.S. military has commissioned a virtual replica of the earth as a virtual world, we may eventually inhabit virtual reality completely.[8] Many of the 20-30 million regular participants in virtual worlds spend more time in these virtual societies than they do on the job or engaged in their own communities.[9] Whereas here they do not vote,[10] they do not bowl,[11] they do not participate,[12] and they do not follow politics,[13] "there" they do.[14] "There"[15] people are gathering, not to shoot space invaders or munch blips on the screen, but to partici-

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$2.2 billion dollar annual recruiting budget. It is estimated that if the game motivates approximately an extra 400 recruits to join, then the project would have recouped its initial costs" (OEMA, 2003).

6. JULIAN DIBBELL, MY TINY LIFE: CRIME AND PASSION IN A VIRTUAL WORLD (1999); *see also* Julian Dibbell's "Play Money" website, *available at* http://www.juliandibbell.com/playmoney/2003_06_01_playmoney_archive.html#20043288; Julian Dibbell's website *at* http://www.juliandibbell.com/.

7. The Virtual Baghdad Project, *at* http://www.nv.cc.va.us/home/nvbrada/braddog/Links.htm; Margaret Wertheim, *Virtual Camp Trains Soldiers in Arabic, and More*, N.Y. TIMES, July 6, 2004, at F3.

8. Peter S. Jenkins, *The Virtual World as a Company Town - Freedom of Speech in Massively Multiple Online Role Playing Games*, 8 J. OF INTERNET LAW, *available at* http://ssrn.com/abstract=565181 (last visited Aug. 19, 2004).

9. THE THEMIS GROUP, THE THEMIS REPORT 2002: HOT TOPICS IN ONLINE GAMES, *at* http://www.themis-group.com/uploads/Funcom%20Case%20Study.pdf (hard core gamers described). On Internet addiction, see also the work of Nick Yee, including *Ariadne: Understanding MMPORG Addiction*, *at* http://www.nickyee.com/hub/addiction/home.html (last visited Aug. 19, 2004).

10. By any measure, voting, especially among young people, has declined. Youth Vote Coalition Statistics, *at* http://www.youthvote.org/stats/statistics.htm.

11. ROBERT PUTNAM, BOWLING ALONE (2000) (bowling used here as a shorthand for the kind of civic and social capital building Putnam discusses).

12. Only half of those surveyed have participated in a volunteer activity. KARL T. KURTZ ET AL., REPRESENTATIVE DEMOCRACY IN AMERICA: VOICES OF THE PEOPLE 5 (2003), *available at* http://www.ncsl.org/public/trust/citizenship.pdf (last modified Oct. 7, 2003).

13. Of those under 26 surveyed, 82% could identify the Simpsons' hometown of Springfield but only 10% could identify the Speaker of the House. *See Representative Democracy in America: Voices of the People*, *at* http://www.ncsl.org/public/trust/citizenship.pdf.

14. Sony Online's Star Wars Galaxies, for example, has weekly mayoral elections for its cities, described in its player manual *at* http://starwarsgalaxies.station.sony.com/manual_detail.jsp?chapter=15 (last visited Aug. 11, 2004).

15. There.com is another popular virtual world, *at* http://www.there.com.

pate in building new social universes.[16] They go to Britannia or Norrath or Second Life to engage in the complex social practices of creating characters, swapping stories, solving problems, paying taxes, enacting rules, and breaking them.[17] They engage in political activism such as the Second Life tax revolt[18] or anti-war peace protests,[19] like the Ultima Online protest against inflation[20] or the Black Sunday protest against the status of Meta-Physicists in Anar-

16. Seth Schiesel, *Voyager to a Strange Planet*, N.Y. TIMES, June 12, 2003, at G1 (describing down-and-out computer repairman in Wisconsin who lives alternate life as genetically-engineered mutant and celebrity, Thedeacon).

17. As Hunter and Lastowka point out, "a significant number of users even claim primary citizenship in virtual worlds. In Castronova's study, 20% of participants in a large survey of EverQuest's users attested to living their lives mostly in EverQuest's Norrath, 22% expressed the desire to spend all their time there, and 40% indicated that if a sufficient wage were available in Norrath then they would quit their job or studies on earth." F. Gregory Lastowka & Dan Hunter, *The Laws of the Virtual Worlds*, 92 CAL L. REV. 1, 9 (2004).

18. Dan Hunter, Terranova blog posting: *The Revolution Will Be Televised* (Sept. 12, 2003), *at* http://terranova.blogs.com/terra_nova/2003/09/the_revolution_.html; *but cf.* Randall Farmer, *RE: [MUD-Dev] The State of Play: On the Second Life Tax Revolt*, (Sept. 23, 2003), *available at* http://www.kanga.nu/archives/MUD-Dev-L/2003Q3/msg00867.php (Randall Farmer, creator of LucasFilm's Habitat, who was also a consultant to Second Life, considers the so-called tax revolt to be much ado about nothing).

19. James Wagner Au, embedded journalist in the Second Life virtual world, web posting, *The War of the Jessie Wall* (July 7, 2003), *at* http://secondlife.com/notes/2003_07_07_archive.php. ("The Lindens intended the Outlands to be the place where Lifers could let their id rage, and on that standard, they've really succeeded. Because in April and May — right after the war in Iraq, which is an important factor to this story, as it turns out — the Outlands became a free speech fire zone, where political debate raged in three dimensions, accompanied by property destruction, robot turrets, and close-quarter combat . . . What happened at the Jessie wall — everything leading up to it, and everything after — strikes me as a microcosm. It's about what happens when cultures clash and territories are disputed; when people misinterpret rules, or misapply them. It's about political debate, and what we believe to be political at all, depending on where we're from, and what assumptions we take with us, when we come here. And because you often learn the most about yourself when you come into conflict and maybe make peace with someone else, it's also about the Second Life community's first challenge, to define what they were. And in all this, there's a lot to be concerned over — but a lot to be hopeful about, too.").

20. Elizabeth Kolbert, *Pimps and Dragons*, THE NEW YORKER, May 28, 2001, at 88 (describing Ultima Online protest). *See also* the interview with Kolbert about the writing of the article, *available at* http://www.newyorker.com/online/content/?010528on_online only01_ (last visited Aug. 11, 2004).

chy Online.[21] Inhabitants of virtual worlds go beyond activism to engage in new forms of collective action and creation.[22] Players are opting out of here to become citizens there.[23]

These uniquely social cyberspaces not only provide a convenient place to simulate the offline world but their unique characteristics enable the emergence of entirely new modes of communication, interaction, and social ordering.[24] It is therefore not surprising that Judge Richard Posner recently suggested that legal scholars study the issues surrounding videogames.[25] This volume is designed to do just that.

This is the first collected exploration of law and virtual worlds for the wider legal and scholarly community. This special Symposium issue of the *New York Law School Law Review* grows out of the first annual State of Play Conference, held at New York Law School from November 13-15, 2003. The State of Play, organized by the Information Society Project at Yale Law School and the Institute for Information Law and Policy at New York Law School, brought together leading legal scholars and practitioners with game designers and software industry professionals, as well as cognitive psychologists, communications experts, computer scientists, visual artists, and game players to explore the new frontier of cyberspace: the virtual world.

The State of Play and the resulting essays in this volume address the law's role in fostering virtual worlds as vibrant places for free expression, creativity, and sociability. At the same time, they explore from various disciplinary perspectives how the three-dimen-

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21. Seth Schiesel, *Voyager to a Strange Planet*, N.Y. TIMES, June 12, 2003, at G1, (describing five hour hike to complain of inadequate powers granted to Meta-Physicists; in response to the protest, the game gods turned the sky black).

22. Beth Simone Noveck, *Democracy, Technology and the Future of Collective Action, or Why on the Internet Everyone Knows You're a (Pack of) Dogs, available at* http://www.ssrn.com (arguing that the crucial measure of technology is its impact on groups).

23. For example, Church of Fools, the "pixel pulpit" virtual church with a "Revatar" boasts: "Some 5,000 people log on to Church of Fools each day. A survey reveals that over 80% of current visitors go to physical church less than four times a year." Church of Fools, *Tony Campolo To Preach At Special Service, at* http://www.shipoffools.com/church/stories/story_9.html (last visited Aug. 15, 2004).

24. Noveck, *supra* note 22.

25. Richard Posner, *Back to the Matrix*, Weblog posting to the Lessig blog, August 26, 2004, *available at* http://lessig.org/cgi-bin/mt/mt-tb.cgi/411.

sional, persistent, graphical, and interactive environments of virtual worlds impact the future of law and democracy.

From the broader question of the appropriate relationship between traditional lawmaking and the new cyberspace of virtual worlds, three discernable themes emerge.

First, virtual worlds are "walled gardens" in cyberspace, built by private companies for their subscribers and controlled by the games' creators. As these games evolve into online societies, should the law step in to protect their inhabitants from the whims of the "game gods" and the all-encompassing end-user license agreements (EULAs) that proclaim their power? Must the creators of the games be free to reign supreme within the confines of the virtual world or should the law prevail over the virtual Leviathan? Richard Bartle, Jack Balkin, and Ted Castronova tackle this key question.

Second, what will be the impact of virtual worlds on the future of law? In other words, how does real world law apply to virtual worlds? Tal Zarsky explores the qualitative legal distinctions for privacy law. Dan Hunter and F. Greg Lastowka address this question in the context of criminal law while Cory Ondrejka inquires about the appropriate intellectual property regime for virtual creations within the gamespace. Douglas Rushkoff posits that games change the very enterprise of lawmaking itself.

Finally, another set of papers addresses how the three-dimensional, graphical, and immersive interfaces affect social conditions and social ordering. These authors are interested, in part, in the way virtual worlds change law but, to a greater extent, they reflect on the emergence of law in its broadest sense in the virtual world. Susan Crawford addresses the impact of synthetic universes on identity. Ethan Katsh asks how the affordances of these new screens create opportunities for enhancing dispute resolution while David Johnson speculates about their impact on the future of corporate life. Michael Froomkin and Caroline Bradley propose the use of virtual worlds as legal test beds. Jacqueline Stevens describes the theory behind a new game that would upend conventional legal assumptions about kinship and family. James Grimmelmann theo-

rizes the newest Law of the Horse by examining property, contract, crime, and power within virtual worlds.[26]

I. BACKGROUND: THE RISE OF VIRTUAL WORLDS

Virtual worlds evolved out of the text-based social environments of multi-user dungeons (also known as multi-user domains or dimensions) such as MUD1 (1979)[27] or LambdaMOO (1990).[28] MUDs and MOOs functioned both as chat rooms and as spaces for collective, fantasy role-playing. Text-based commands allowed a user to communicate actions to other users and thereby to act out fantasies and scenes across a distance like an on-line Dungeons and Dragons.[29] In a MUD, the fantasy is described exclusively through words. Subsequently, other designers, such as Randall Farmer and Chip Morningstar, created graphical role-playing worlds like Habitat, the first multi-user domain with a graphical interface.[30]

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26. This is a reference to the now-classic article, Frank Easterbrook, *Cyberspace or the Law of the Horse*, 1996 U. CHI. L. FORUM 207 (arguing that law of cyberspace or law of Internet should not be fields of legal scholarship or inquiry but, rather, that technology can best be understood through traditional legal notions of contract, property, and constitutional law).

27. In 1979, Bartle and Trubshaw created the first social textual world at Essex University. For a history of MUD and of virtual worlds, generally, see RICHARD BARTLE, DESIGNING VIRTUAL WORLDS, 1-32 (2003) (manual on building a virtual world).

28. LambdaMOO created in 1990 by Pavel Curtis of Xerox Research in Palo Alta. Pavel Curtis, *Mudding: Social Phenomena in Text-Based Virtual Realities*, INTERTEK 3.3 (Winter) 26-34 (1992); *see also* Jennifer Mnookin, *Virtual(ly) Law: The Emergence of Law in an On-Line Community*, 2 J. COMPUTER MEDIATED COMM. 1 (1996), *available at* http://www.ascusc.org/jcmc/vol2/issue1/lambda.html (last accessed Aug 19, 2004) (special issue on Emerging Technologies and the Law).

29. In 1973, David Arneson and Gary Gygax first created the fantasy, role-playing game inspired by J.R.R. Tolkien's Lord of the Rings, known as Dungeons and Dragons. The game was first commercially marketed in 1980. Millions of young people, including the author, were influenced by this game-playing genre, which inspired the creation of subsequent videogames. For a fantastic and concise chronicle of the rise of virtual worlds and their cultural influences, see Raph Koster, *Online World Timeline, at* http://www.legendmud.org/raph/gaming/mudtimeline.html, and EDWARD CASTRONOVA, ON VIRTUAL ECONOMIES (CESifo Working Paper No. 752, 2002), *available at* http://www.ssrn.com (Figure 1 Development of Avatar Games offers a visual timeline). *See also*, Jessica Mulligan, *History of Online Games, at* http://www.kanga.nu/archives/MUD-Dev-L/1999Q4/msg00083.php.

30. In 1985, Chip Morningstar and Randy Farmer developed Habitat to run on the Commodore 64. Posting of Chip Morningstar, chip@fudco.com, to http://www.fudco.com/habitat/ (July 31, 2004) (copy on file with author). *See also*, CASTRONOVA, *supra* note 29 (description of Habitat in the history of virtual worlds); Philip Giordano,

With the increase in processor power, the improvement in video and sound technology, and the advent of better graphical rendering tools, MUDs and MOOs were followed by visually rich role-playing games like Quake[31] and Doom[32] in the early 1990s. In 1993, Id Software released an online version of Doom where it was possible to interact with (and kill) real people in a real-time multiplayer (but not persistent) environment. These games were huge successes and made the industry clamor for more interactive titles. Ultima Online, created by Richard Garriott,[33] linked the graphics of videogames[34] to the social and role-playing culture[35] of MUDs to the Internet in what is considered to be the first persistent, massively-multiplayer commercial success. Ultima went live in 1998 and boasted subscriptions of up to a quarter-million for its two-dimensional interface,[36] while its progeny, Lineage, attracted 4 million subscribers, particularly in Asia.[37] Everquest, developed by Sony Online Entertainment, launched in 1999 with a three-dimensional perspective.

The boost in available bandwidth for home users and the increasing penetration of Internet connectivity (helped by a move to flat-rate pricing), allowed these role-playing fantasy games to go online with networked play via the Internet. The development of multiplayer online role-playing games (MPORGs) and then massively

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Invoking Law as a Basis for Identity in Cyberspace, 1998 STAN. TECH. L. REV. 1 (describing quasi-legal institutions developing in LambdaMOO).

31. Quake Videogame, *available at* http://www.idsoftware.com/games/quake/quake3-gold/ (created by Id Software).

32. Doom Videogame, *available at* http://www.doom3.com/ (created by Id Software).

33. JOHN BORLAND & BRAD KING, DUNGEONS & DREAMERS: THE RISE OF COMPUTER GAME CULTURE FROM GEEK TO CHIC (2003) (history of videogames).

34. RICHARD BARTLE, DESIGNING VIRTUAL WORLDS (2003) (leading text on virtual world design).

35. DANIEL MACKAY, THE FANTASY ROLE-PLAYING GAME: A NEW PERFORMING ART (2001) (describing role-playing nature of new games); GARY ALAN FINE, SHARED FANTASY: ROLE-PLAYING GAMES AS SOCIAL WORLDS (1983) (on the phenomenon of role playing games and their sub-culture).

36. An analysis of subscription statistics for Massively Multiplayer Online Games, MMOGs, *at* http://pw1.netcom.com/~sirbruce/Subscriptions.html

37. CASTRONOVA, *supra* note 29.

multiplayer online role-playing games (MMPORGs) took off in the late 1990s with such titles as Final Fantasy.[38]

Large-scale investment began to pour into the creation of virtual worlds, which demand enormous development teams to create dozens of levels of play, vast graphical landscapes, sophisticated game physics (the functionality of the game), and new challenges to hook and retain players over time. The social interaction offered by these virtual worlds (unlike non-interactive console games) allowed game companies to charge subscription fees in addition to a one-time charge for the software. Recurring revenue is the holy grail of every industry. The lure of ongoing profit streams drives increasing investment into the creation of virtual worlds, which cost between $5 to $7 million to design.[39] But rewards are being reaped in both profits and numbers of subscribers.[40] For example, Sony's Everquest enjoys close to half a million subscribers[41] in the U.S.

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38. An analysis of subscription statistics for Massively Multiplayer Online Games, MMOGs, *at* http://pw1.netcom.com/~sirbruce/Subscriptions.html

39. This figure from J.C. Herz, *Multi-Player Worlds Online*, in GAME ON 87 (Lucien King, ed.) (2003). *See also* Raymond Padilla, *Microsoft Goes Triple X*, Gamespy (Mar. 25, 2004), *at* http://archive.gamespy.com/gdc2004/xna (as an example he pointed to the average costs of game development in 1982, 1994, and 2004; the numbers have soared from $100,000 to $1,000,000 to $5,000,000, respectively) (last visited Aug. 19, 2004); DFC Intelligence, *The Business of Computer and Video Games 2004* (Mar. 1, 2004), *at* http://www.dfcint.com/game_article/feb04article.html (as an average game reaches development costs of $5 million, DFC Intelligence estimates the breakeven point is reaching 500,000 units. Unfortunately, only about 5% of SKUs will reach that level in the U.S. This means to be successful it is critical that companies 1) develop for multiple platforms and 2) release titles on a worldwide basis), *and* Matt Krantz, *Video game college is 'boot camp' for designers*, USA Today, Dec. 3, 2002 *at* http://www.usatoday.com/money/media/2002-12-03-video_x.htm (As the games get more dazzling and carry production costs ranging from $1 million to $8 million, programmers with increasingly specialized skills are needed).

40. Multiplayer game worlds such as EverQuest and The Sims Online look set to generate more than $1 billion for the first time in 2004. According to a report from the market analysts, The Themis Group, massive multiplayer games will generate $1.3 billion over the next twelve months. The bulk of this will come from subscriptions, but a growing proportion will be generated by the sale of virtual property and in-game items. The analyst group expects the revenues generated by games to grow to more than $4 billion by 2008. *Online Games Making Serious Money*, BBC News, Jan. 19, 2004, *at* http://news.bbc.co.uk/1/hi/technology/3403605.stm. *But cf.* Randall Farmer, *The Business of Social Avatar Worlds*, posting July 15, 2004, *at* The Habitat Weblog, http://www.fudco.com/habitat/archives/2004_07.html (Farmer is not so sanguine about the prospects).

41. Sony recently claimed 420,000 subscribers. *See Everquest Celebrates Fifth Birthday*, *at* http://www.gamespot.com/news/2004/03/15/news_6091457.html.

while Rangnarok, the newest virtual world to gain a foothold in Asia, is estimated by some to have 17 million players worldwide (other estimates are closer to 2 million).[42] Ragnarok has become so popular that Thai authorities had to ban its nighttime use to ensure that children did their homework.[43] By August 2004, there were 3,872,760 registered players in America's Army, the official U.S. military videogame, who had played over 940 million 10-minute missions;[44] this number, perhaps bolstered by the Iraq War, more than doubled over the previous year.

In the latest generation of virtual worlds, such as The Sims,[45] Second Life,[46] City of Heroes,[47] and There.com[48] players can create more and more of their own content, fostering in-world creativity and productivity but also cutting down on development costs associated with building content.[49] While having fun and investing them-

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42. *Ragnarok Online Reaches 17 Million Subscribers Worldwide, at* http://www.popcultureshock.com/news.php?id=630 (March 16, 2004). For the 2 million figure, see Bruce Sterling Woodcock, *An Analysis of MMOG Subscription Growth – Version 9.0, available at* http://pw1.netcom.com/~sirbruce/Subscriptions.html (modified Aug. 2004).

43. Cnet, *Thai Government Bans Online Games at Night, at* http://news.zdnet.co.uk/internet/0,39020369,2137269,00.htm

44. Live statistics are available on the America's Army Website "AA:SF Top Level Stats" *at* http://www.americasarmy.com.

45. EA Games, The Sims Online Website, *at* http://thesims.ea.com/us/index.html (last visited Aug. 19, 2004).

46. Second Life is made by Linden Lab and can be found at http://www.secondlife.com.

47. Cryptic Studios & NCsoft Corp., City of Heroes Website, *at* http://www.cityofheroes.com/ (last visited Aug. 19, 2004).

48. There.com is made by There Inc. and can be found at http://www.there.com.

49. Posting of James Grimmelman, to LawMeme Blog, *State of Play: On the Second Life Tax Revolt*, Sept. 21, 2004, *available at* http://research.yale.edu/lawmeme/modules.php?name=news&file=article&sid=1222; *See also* Andy Eddy, *Changing Avatar Midstream*, GAMESPY, June 30, 2003 *available at* http://archive.gamespy.com/bizbuzz/june03/bizbuzz72/ ("When you enter Second Life, you find yourself as an avatar in the world. In a very Snow Crash-like manner, the makeup of this world exists solely at the whim of its citizens. It provides various building and scripting tools that enable the creation of elaborate — though intended to be easy to make — structures and installations. While the first look around Second Life shows off wild architecture, such as a castle, a house hanging in midair and a giant toilet, a deeper look shows the potential for much more. A casino has slots and other games. A disco has the requisite flashing dance floor, but it also features a mixing board with various sound samples — that anyone can manipulate for the others in the room to hear. There's also an enclosed site called "JetBall" that features a basketball-like game, though requiring the addition of a jet shooter to each avatar's hand and the need to jump in the low-gravity room in order to make a basket.").

selves (literally) in the community, they are doing the job of the designers.

Virtual worlds are fast becoming highly evolved and densely populated societies. Like any new technology, virtual worlds replicate the status quo. In Second Life, the residents, not the company, have built virtual sidewalks even though avatars can "teleport" or fly from place to place. At the same time, the special features of virtual worlds permit innovations that shape the range of possible individual behavior and collective action. We can break free from the constraints of reality. Death can be coded away. Gravity is programmable and can be turned on or off.[50] This tectonic technological shift opens up the imagination to new possibilities for social organization.

We are witnessing an evolution toward more visual and interactive technologies. These tools reintroduce a sense of the self and the body through the electronic representation of the avatar mask. Users can design their features down to the shape of the eyebrow and the length of the fingers.[51] Some games even let characters see what offspring from a particular character will look like.[52] Identity, while mutable and distinct from identity in the real world, takes on a corporeal form. They therefore allow me to see myself and to see others. Because virtual worlds are three dimensional, graphical rendering of space and place are possible (and are improving in two-dimensional interfaces as well). Property — both real and personal — can be created.[53] By reintroducing place in cyberspace,

50. In Second Life, each player can decide whether to allow the law of gravity to reign on her land.

51. Most virtual worlds allow players to create customized characters with unique outfits, special powers, and unique attributes. The "About Us" section of any game website gives examples of the range of avatar creation powers. For example, see Second Life's description and gallery of avatar images at http://secondlife.com/about/features.php (last visited Aug. 11, 2004). See also the fan site Second Look, which features a gallery of avatar images at http://2ndlook.org/ (last visited Aug. 11, 2004).

52. The Sims 2, sequel to the best-selling Sims videogame, advertises: "In the The Sims™ 2, you direct your Sims over a lifetime and mix their genes from one generation to the next . . . . Mix Genes: Your Sims have DNA and inherit physical and personality traits. Take your Sims through an infinite number of generations as you evolve their family tree." *See* Sims 2 Website, *at* http://thesims2.ea.com/about.php (last visited Aug. 11, 2004).

53. F. Gregory Lastowka & Dan Hunter, *The Laws of the Virtual Worlds*, 92 CAL. L. REV. 1, 7 (2004) (property in virtual worlds carries real value).

virtual worlds allow people to appear to be next to one another virtually even when they are far away in reality. Virtual worlds permit a much wider range of opportunities for representing information, not only as text, but also as graphical objects with attendant color, shape, size, and location. In virtual worlds, information can also be "mapped" or charted in ways that cannot be done in real space. Moreover, the increasingly sophisticated game physics allow players to engage in a range of behaviors and, for the most part, to behave naturally. They can talk, gesture, wink, blink, run, walk, and chew gum. While the landscape of the virtual environment may be fictitious, it is possible to engage in real practices of participation. As in real life, people can gather, deliberate, decide, and even protest, or engage in new forms of delegation of roles and tasks within the group.[54] Physical space is simulated but social action is real. Whether the law should recognize virtual property or virtual crime may be a subject for debate, but the social dynamics of interaction between avatars in the virtual world are the product of intentional behavior.

These three-dimensional, physical, interactive, and immersive spaces can be called "virtual reality" in a way that was never applicable for two-dimensional, disembodied, text-based cyberspace. The membrane between the real world and the virtual world is becoming more porous as a wider range of activities and emotions can be acted out online. As Hunter and Lastowka put it, "it is now possible to work in a fantasy world to pay rent in reality."[55] These worlds represent unique social systems with systems of decisionmaking and choice. Their special characteristics that replicate real world sociability enable collective action that was previously only possible in physical space. Virtual worlds, unlike older videogames, mimic whole cultures with their myriad institutions and social traits.

II. How Synthetic Worlds Change the Law

The development of these complex online cultures is giving rise to the development of new forms of social ordering within virtual worlds. James Grimmelmann (*Virtual Worlds as Comparative*

54. Kolbert, *supra* note 20, and accompanying text.

55. F. Gregory Lastowka & Dan Hunter, *The Laws of the Virtual Worlds*, 92 Cal. L. Rev. 1, 11 (2004).

Law) explores how virtual societies are spawning new forms of virtual world law. His is an expressly comparative inquiry designed to probe the uniqueness of law within the gamespace. As Grimmelmann inquires, "Societies have laws, so why should virtual societies be any different? My topic, then, will not be the law of virtual worlds, but rather law in virtual worlds. If lawyers can learn from studying the legal systems of common-law and civil-law countries, perhaps we can also learn from studying the legal systems of virtual law worlds." To this end, Grimmelman delves into the way power and meaning are ascribed in a purely digital environment between game players and game creator and among players. He navigates the uncharted terrain of virtual world law, offering the reader a map of its contours.

Michael Froomkin and Caroline Bradley (*Virtual Worlds, Real Rules*), too, style theirs as a comparative law approach, choosing, like Grimmelmann, to apply the methodology of comparative legal inquiry to understanding these virtual jurisdictions. Froomkin and Bradley suggest that with virtual worlds we can go beyond learning from the customs of this other place and, instead, can use the terrain of virtual worlds as a legal test bed. Precisely because virtual worlds still exist apart from our own legal system, they represent an ideal and inexpensive environment to test legal rules prior to their institutionalization in real space. While Brandeis viewed the states as crucible for democratic experimentalism, Froomkin and Bradley see virtual worlds as another more efficient tool of localism in which a wider variety of decisional rules can be tested.

Ethan Katsh (*Bringing Online Dispute Resolution to Virtual Worlds: Creating Processes through Code*) also views synthetic environments as places for legal experimentation. Katsh explores the application of virtual worlds to online dispute resolution. In an online environment both disputes and their resolution are informational processes. For this reason, Katsh argues, virtual worlds might offer a useful testing ground for pioneering new forms of dispute resolution. "Virtual worlds are intriguing because they present us with new fora and new fusses. They also present us with opportunities to develop new tools that might be employed in both online and non-online environments." A longtime scholar of online dispute resolution, Katsh, like many of the scholars in this volume, sees virtual

worlds as holding particular promise beyond that of earlier technologies, for legal innovation.

David Johnson (*How Online Games May Change the Law and Legally Significant Institutions*) describes the affordances of the new virtual world interfaces. The computer screens of online games are giving rise to the conditions for the creation of organizations and groups that can make decisions, control assets, and accomplish goals together. These virtual organizations may demand and deserve new forms of legal personhood. Johnson does not simply ask how does corporate law apply to virtual worlds but, rather, explores the way virtual worlds are producing new forms of corporate life to which the law must eventually respond.

Like Johnson, Susan Crawford (*Who's In Charge of Who I Am? Identity and Law Online)* is interested in the interfaces of cyberspace. For Crawford, the central question, however, is the way technology shapes the construction of human identity. Identity is central to human autonomy and self-fulfillment. Yet, the law is of limited use in regulating it in this context where the online intermediary, namely the game god, has ultimate power over identity. The law, which conceives of identity as unitary, is a blunt instrument in a world in which multiple identities can positively coexist. For Crawford, virtual worlds highlight something about identity that is true offline as well, namely that the myriad social groups to which we belong define our identity and, as a result, Crawford argues, groups should be empowered technologically and legally to wield control over the disposition of identity. Groups can help fill in the legal void in these spaces where law does not and should not apply.

Jacqueline Stevens (*Legal Aesthetics of the Family and the Nation: agoraXchange and Notes toward Re-Imaging the Future),* much like Froomkin and Bradley, views the gamespace as an alternative legal reality where a different set of assumptions can be tried and tested. AgoraXchange involves the public in designing an online universe where "governments do not legislate distinctions of birth" as a way to test whether, as she argues, inequality results fundamentally from law's reliance on various natural fallacies. Traditional lawmaking effaces its socio-biological assumptions about family and kinship — assumptions which the process of game-creation lays bare.

III. LAW AND VIRTUAL WORLDS

While the above scholars focus on the impact of virtual worlds on law, others address the impact of law on the development of virtual worlds. Cory Ondrejka (*Escaping the Gilded Cage*) discusses how intellectual property law prompted his company, Linden Lab, contrary to standard industry practice, to decline taking exclusive intellectual property rights in the digital works created by players in their world.[56] If participants can have rights in their own works and exploit them,[57] the argument is, they will be more likely to create and, by creating, to become more attached to the place that gives them the tools to build.[58] Let players build the metaverse for themselves. By safeguarding the intellectual property rights of players, game companies foster creation, rather than mere crafting or tinkering, argues Ondrejka. This is the way to homestead the new virtual frontier. Ondrejka's thesis stands in marked contrast to those who argue that IP rights are a necessary incentive to build the virtual world in the first place or to those who posit that intellectual property law is altogether unnecessary in a digital environment of cheap reproduction and distribution.

Dan Hunter and F. Gregory Lastowka (*Virtual Crimes*), too, take seriously the notion that mere virtuality does not make the act of creating property any less meaningful or valuable. After all, intangible intellectual property of all kinds has value. People invest significantly in creating synthetic things. This gives rise to the question of whether the law should penalize the theft of such property and other virtual crime. This is further complicated, they point out, by virtue of the fact that crime takes place in the context of a game, where "theft" and "murder" may be the object.

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56. Linden Lab, *Second Life Residents to Own Digital Creations,* Press Release for State of Play *at* http://lindenlab.com/press_story_12.php (last visited Aug. 19 2004).

57. For example, in Second Life, there is a fashion designer who develops and tries out fashion lines in-world before producing and marketing the clothing in the real world. *See* interview *at* http://www.rpgwh.net/content/editorials-secondlifeinterview.php (last visited Aug. 19, 2004).

58. Cory Ondrejka, *Escaping the Gilded Cage,* 49 N.Y. L. SCH. L. REV. 81 (2004) ("At the end of May 2004, users had created more than one million objects, over 300,000 objects with scripted behaviors, and over 300,000 pieces of clothing. Well over 99% of the objects in *Second Life* are user created, and user has responded positively to the idea of creating the world that they live in.").

Like Hunter and Lastowka, Tal Zarsky (*Information Privacy in Virtual Worlds: Identifying Unique Concerns Beyond the Online and Offline World*), asks whether and how the law should recognize contraventions of privacy in virtual worlds, where all is knowable and visible to the game administrator. The problems that virtual worlds pose for privacy are quantitatively and qualitatively different than cyberspace, generally. The panopticon of virtual worlds gives rise both to information misuse by game operators and to the danger of intrusions into private life by players.

Douglas Rushkoff (*The New Alphabet*), too, is so taken by the new creativity and crafting of virtual worlds as to suggest that the impact of games on our civilization "is no less profound than that of literacy." Like literacy, games make law more accessible by allowing players to participate in making the rules. We now move "from being receivers to being interpreters to being authors," and this changes our relationship to law writ large by undermining the role of the expert-lawyer as the sole legitimate interpreter of the law. In virtual realms, we are the lawmakers and the authors of our own reality.

IV. GAME GODS VERSUS THE LAW

Finally, we return to the fundamental problem raised by the cultivation of walled gardens: how the law should respond to the power of the technologist to control the code of the game. We are fortunate to have a contribution in this volume by MUD's original co-creator, Richard Bartle. Bartle (*Virtual Worldliness*), in addition to providing some of the history of MUD, argues strongly in favor of respecting the rights of the game gods. External interference, especially by courts, jeopardizes the creator's incentive to design, claims Bartle. To appreciate Bartle's argument it is important to understand that every aspect of life within a virtual world exists at the pleasure (and whim) of the game's creator[59] who can eject or erase

59. Richard Bartle, *Virtual Worldliness*, 49 N.Y.L. SCH. L. REV. 19 (2004) ("You may be able to pick and choose which cultural norms to obey, but you don't get to pick and choose which rules of the virtual world's physical universe to obey – and the administrator's authority in a virtual world is *embodied* in those rules.").

characters or pull the plug on the game altogether.[60] The attributes of the virtual world — whether avatars can fly instead of walk or have purple skin — are a function of a programming choice. Even the decision to delegate choice back to the players is still, initially, done at the discretion of the game god without any intervention from courts or requirements imposed by law.

By contrast, Jack Balkin (*Law and Liberty in Virtual Worlds*) argues that despite the constitutional mutability of virtual worlds and the fact that they are run by private parties, the law will step in against the game gods.[61] There are three kinds of liberty in virtual worlds that roughly correspond to the constitutional rights of freedom of speech, expression and association. While there is no First Amendment protection in virtual worlds, there are free speech values that are prevalent and which ought to be safeguarded. By virtue of the fact that game owners and players seek property protection for goods created online, real world law will eventually enter virtual worlds. Commercialization and commodification will invite the law in and give rise to legal protections for player rights.[62]

Virtual world economist Ted Castronova (*The Right to Play*) also addresses the appropriate boundary between real world law and virtual world play. He comes out between Balkin and Bartle with a provocative and innovative suggestion. Castronova argues that we must distinguish between open worlds, whose boundaries are porous to real world law, as cyberspace is now, and closed, synthetic worlds set aside as gamespaces where real world law will not apply. The latter should be established by special laws of "Interration," a kind of corporate charter that delimits such spaces and protects the rights of users within them while holding the courts at bay. Like a corporation, the gamespace will be governed not simply by a private EULA, but by statutory by-laws.

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60. James Grimmelman, *Virtual Power Politics, in* THE STATE OF PLAY: LAW AND VIRTUAL WORLDS (forthcoming NYU Press 2005) (discussion of penalizing players for engaging in "exploits").

61. Raph Koster, *Declaring the Rights of Players, at* http://www.legendmud.org/raph/gaming/index.html (last accessed Aug. 17, 2004) (Koster argues in favor of the rights of avatars).

62. Elsewhere Balkin argues that like the company town of old, virtual worlds represent a new form of hybrid environment. These are private spaces that serve a public function. As a result, courts will and should come to recognize the need to safeguard constitutional rights even as against the game's creators.

V. Law for Virtual Worlds and Law in Virtual Worlds

The thirteen papers[63] that comprise this volume represent a giant leap forward into the unknown intellectual terrain of law and virtual worlds. The State of Play conference and these essays put definitively to rest the question of whether virtual worlds are different from the World Wide Web, though they make clear that we do not yet understand what defines them.

At some level, virtual worlds exacerbate problems for privacy, identity, and crime already encountered by the shift from a paper-based, physical world to the virtual world of the Internet and the Web. Digital worlds, by virtue of being more nuanced social environments yet completely under the control of their creators, give rise to dystopic legal problems. The story of intellectual property in virtual worlds is even more complicated. All of the same difficulties we encounter in balancing the public right of access to cultural products with protection of the creator's property rights and moral rights in her works of authorship arise in virtual worlds, too. But, on top of the legal quandaries posed by Napster, CleanFlicks, and TiVo, virtual worlds layer on the question of whether to have intellectual property protection at all. In these spaces, players wield the most powerful tools we have seen to "rip, mix, and burn." They can not only modify and create cultural artifacts, they can interact with other people and collaborate in the creation of art, knowledge, and society. Nonetheless, the rights of players to create, speak, and play are still in flux.

The proposals outlined in this volume for which laws and which institutions should apply in the virtual world to maintain order and ensure their flourishing, if any, will soon be tested by courts, legislatures and game designers.

At the same time, we also have to focus on the utopian scenarios — the positive prospects for the world we can build in virtual spaces to make them habitable, sociable, democratic, and fun. The visual and social interfaces of virtual worlds go vastly beyond the World Wide Web in creating opportunities for community. We are witness to the emergence of new forms of collective action and civic engagement. As social scientists, we must observe the impact of this

63. Also contained in this volume are student pieces that address privacy and free speech issues in the digital world.

technology on social life. As legal theorists and lawyers, we have to look for ways to make affirmative change happen and create the framework for democracy and liberty in the virtual world. We may disagree about how to make this new frontier of cyberspace most hospitable to the practices of democracy — namely, the participation, engagement, and activism that are already so characteristic of life in the virtual world.

The conversation is only beginning.[64]

64. The State of Play 2 took place Oct 28-31, 2004. This and all future State of Play conferences can be found at http://www.nyls.edu/stateofplay.