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Lucille M. Ponte

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LEVELING UP TO IMMERSIVE DISPUTE RESOLUTION (IDR) IN 3-D VIRTUAL WORLDS: LEARNING AND EMPLOYING KEY IDR SKILLS TO RESOLVE IN-WORLD DEVELOPER-PARTICIPANT CONFLICTS

Lucille M. Ponte*

I. INTRODUCTION

As technology improves, bandwidth expands and devices proliferate,¹ hundreds of millions of people² are engaging with ever-more realistic and complex three-dimensional (3-D) immersive environments³ for up to thirty

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¹ Professor of Law, Florida Coastal School of Law. Professor Ponte wishes to acknowledge and thank her research assistants, Miles Weeks Mader, J.D., and Jeremiah Blocker, J.D. class of 2012, for their research on the ever-changing landscape of 3-D virtual worlds. In addition, the author thanks Dean Peter Goplerud and the Florida Coastal Summer Research Grant Program for supporting this research project.

1. Beth Simone Noveck, The State of Play, 49 N.Y.L. SCH. L. REV. 1, 2 (2004-2005); Virtual Worlds Forecast to Grow 23% Through 2015, STRATEGY ANALYTICS, (June 15, 2009), http://www.strategyanalytics.com/default.aspx?mod=PressReleaseViewer&a0=4745 [hereinafter SA Forecast] (copy on file with author). Harvey Cohen, President, Strategy Analytics, Inc., a global market research and consulting firm, stated that “[v]irtual worlds have largely overcome enabling restrictions in terms of broadband access, computing power, and ease of use, and are now experiencing significant interest among major brands, as well as traction among targeted demographics.” Id. See generally Noveck, supra at 6–11 (providing a historical overview of virtual worlds). In addition, a 2011 Unisfair survey found that sixty percent of 550 marketers surveyed planned to increase their expenditures on virtual activities, including training (forty-two percent) and internal collaboration (thirty-four percent). Aliza Sherman, Virtual Worlds: Immersive Training, Collaboration and Meetings, GIGAOM (June 1, 2011), http://gigaom.com/collaboration/virtual-environments-for-training-collaboration-and-meetings/.

2. It is estimated that there are about 186 million individual or unique registrations in virtual worlds as of June 2009. Peter J. Quinn, A Click Too Far: The Difficulty In Using Adhesive American Law License Agreements To Govern Global Virtual Worlds, 27 WIS. INT’L L.J. 757, 758 (2010). By 2015, Strategy Analytics, Inc. predicts that active users of virtual worlds will reach about 638 million users globally, a twenty-three percent increase between 2009 and 2015. SA Forecast, supra note 1. The greatest increase will come from the “tweens and teens” market with a projected twenty-one percent increase. Id. In addition, the think tank asserts that the value of micro transactions in virtual worlds will make up eighty percent of their revenues, growing from $1 billion in 2008 to $17.3 billion by 2015. Id. Also, it is estimated that, globally, about 3 billion hours a week are spent in gaming communities. JANE McGONIGAL, REALITY IS BROKEN, WHY GAMES MAKE US BETTER AND HOW THEY CAN CHANGE THE WORLD 3–4, 6 (2011). See Noveck, supra note 1, at 2.

3. See supra notes 1-2 and accompanying text. See also EDWARD CASTRONova, SYNTHETIC WORLDS, THE BUSINESS AND CULTURE OF ONLINE GAMES 1, 53, Table 1 (2005). See infra Table 1 and accompanying text. In general, the terms “virtual world,” “virtual reali-
The growing variety of online 3-D spaces allows individuals to try on new identities as avatars and to interact, explore, and shape their virtual experiences. Terms such as "immersive (or virtual) environment," "virtual world, reality, or space(s)" are used to describe these spaces where individuals are present through 3-D avatars that can explore, engage, and interact with other avatars synchronously.

There have been various estimates of the amount of time users spend in immersive environments—from twenty to thirty average hours per week for typical users. More recent figures, however, estimate that typical users play about one or two hours a day and only "hard-core" gamers play as much as twenty hours per week. Regardless of the number of hours played, about sixty-nine percent of heads of households and ninety-seven percent of youths play video or computer games in an estimated $68 billion industry.

An avatar is a "visual (or electronic) representation" of the individual user and may represent an aspect of the user's actual real world identity. An avatar is often a human figure with varied appearance and dress than the user, but may also take shape as animal, abstract, or fanciful forms. An avatar is the connection of the user to her online social community. Likewise, virtual reputations and trust are costly to generate, but easy to lose. If an avatar is identified as having harmed the community through interactions with a researcher, the human being behind the avatar will certainly suffer harm to her identity, reputation, and community.
either reality-based\(^6\) or fantasy-based online worlds.\(^7\) In some of these virtual worlds, the emphasis is on developing personal relationships through social networking,\(^8\) while others revolve primarily around achieving competitive game objectives.\(^9\) Participants may engage in a laundry list of mundane or whimsical activities from decorating your virtual home and chatting with fellow avatars to slaying mythical monsters or accomplishing quests in a hero’s journey.\(^10\) Some virtual world members seek to improve real world outcomes through cooperation on political or philanthropic efforts,\(^11\) while others view virtual worlds as new venues for deviance\(^12\) and tortious and

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10. Quinn, supra note 2, at 760–61. See supra notes 6–8 and accompanying text.


criminal activity. For some virtual world participants, these 3-D immersive environments—not their bricks-and-mortar residences—have become their true homes.

While Second Life presents a myriad of potentially positive applications, it also has its share of potentially degrading influences. Perhaps the most troubling concerns posed by virtual worlds are the dangers of addiction, dehumanization, and detrimental effects on relationships and values. In one columnist's words, Second Life is "98% stupid, overrun with sex clubs, discos, casinos, yard sales, tragic architecture, and more shopping malls than the San Fernando Valley." Another observer, analogizing Second Life to "a seedy, derelict carnival," found Second Life to be dominated by the "breakdown of inhibition," resulting in "the triumph of amusement and distraction over meaning and purpose."

Lin, supra note 11, at 107–08 (footnotes omitted).


14. In one survey, about twenty percent of responders indicated that online worlds were their "real" places of residence with the bricks-and-mortar world viewed as "just a place you go to get food and sleep." Noveck, supra note 1, at 2. More importantly, Professor Noveck stated that regular participants in virtual worlds spend more time in these virtual societies than they do on the job or engaged in their own communities. Whereas here they do not vote, they do not bowl, they do not participate, and they do not follow pol-
One activity typically missing within the contours of the virtual world is an effective, in-world conflict resolution process\textsuperscript{15} to handle developer (or owner)-participant (or player) conflicts within the contours of the virtual world.\textsuperscript{16} Despite the scholarly debate over the application of real world law to virtual world conflicts,\textsuperscript{17} it is clear that most of these disputes, if brought forward at all, end up in real world courts\textsuperscript{18} for final determination of party

id. at 2–3 (footnotes omitted). See Castronova, supra note 3, at 1–2. See supra note 3 and accompanying text.


16. There may be a variety of conflicts between game developers and regulatory government bodies or with outside third parties, but this article will focus on developer-participant disputes. See Fink, supra note 15, at 12–13 (discussing six potential kinds of disputes between developers, gamers, third parties, and governmental bodies).

17. Scholars have hotly debated over how to properly identify and define the boundaries of virtual worlds in the context of real world laws and regulations. See, e.g., Richard A. Bartle, Virtual Worldliness, 49 N.Y.L. Sch. L. Rev. 19 (2004-2005) (asserting that courts should not interfere with discretion and rights of game developers); Edward Castronova, The Right to Play, 49 N.Y.L. Sch. L. Rev. 185 (2004-2005) (arguing for “law of iteration” in which legislation should protect closed, synthetic worlds from state intervention); Joshua A.T. Fairfield, The Magic Circle, 11 Vand. J. Ent. & Tech. L. 823 (2009) (contending that online worlds are not enclosed within “magic circle” beyond the reach of real worlds, but porous entities capable of real world legal consequences); Fink, supra note 15, at 18–19, 28 (stating that normative practice of “griefing” plays important role in maintaining social order in Second Life); Michael Risch, Virtual Rule of Law, 112 W. Va. L. Rev. 1 (2009) (posing that EULAs and code are the strongest possibilities for effective rule of law in virtual worlds). See generally Duranske, supra note 3, 19-26; Noveck, supra note 1, at 11–18 (both sources offer an overview of key perspectives in debate over application of real world law to virtual worlds).

rights and responsibilities under the terms of use of these virtual worlds. Most of these virtual environments require adversarial conflict resolution either in traditional courts or arbitration to process disputes between game developers and members. A few sites’ terms of use refer vaguely to “non-appearance based” conflict resolution options without further explanation of the nature of these processes. In other instances, developers can

scapegaming.com); Zynga Game Network, Inc. v. John Does 1-50, Case No. CV-02957-HRL (N.D. Cal., June 19, 2009) (Zynga sued unnamed parties for allegedly selling virtual game chips in violation of Zynga’s trademarks); Taser Int’l v. Linden Lab, 2:09-cv-00811 (D. Ariz., Apr. 20, 2009) (Taser brought infringement case against Second Life adult-themed stores selling virtual laser guns which was ultimately dismissed without prejudice); Minsky v. Linden Res., Inc., Civil Case No. 08-CV-819 (N.D.N.Y., July 29, 2008); Bragg v. Linden Research, Inc., 487 F. Supp. 2d 593 (E.D. Pa. 2007) (determining that Second Life’s arbitration provision requiring a venue of San Francisco, California is unconscionable in light of the website’s national presence); Hernandez v. Internet Gaming Entm’t, Ltd., 2007 U.S. Dist. Ct. Pleadings 21403 (S.D. Fla. June 1, 2007) (class action brought on behalf of WoW players against Hong Kong “gold farming” operation for trading in virtual game assets for profit and substantial impairment of asset use and WoW player enjoyment associated with consumer agreements between Blizzard Entertainment and subscribers); Eros, LLC v. Leatherwood, Case No. 8:07-CV-1158-SCB-TGW (M.D. Fla., July 3, 2007) (default judgment in case when plaintiff sued avatar Volkov Catteneo for copyright infringement of Eros’s virtual sex bed); Eros, LLC et al. v. Simon, Case No. 07-CV-4447-SLT-JMA (E.D.N.Y., Oct. 24, 2007) (case settled in which Eros sued avatar, Rase Kenzo, for copyright and trademark infringement of adult-oriented virtual clothing, furniture, and other virtual objects); Marvel Enters. v. NCsoft Corp., 2005 U.S. Dist. LEXIS 8448 (C.D. Cal. Mar. 9, 2005) (Marvel brought trademark and copyright infringement against company whose online game permitted users to create and name their own online characters for game play in 3-D City of Heroes universe of Paragon City); Davidson & Assocs. v. Internet Gateway, 334 F. Supp. 2d 1164 (E.D. Mo. 2004), aff’d Davidson & Assocs. v. Jung, 422 F.3d 630 (8th Cir. 2005) (finding in favor of Blizzard as to copyright, DMCA, and breach of contract/terms of use against former subscribers and others in illicitly emulating Blizzard’s Battle.net site). Notably, a Chinese civil court was the first to recognize the value of virtual property when it ordered “Red Moon” game developer to restore virtual goods and game status to an online gamer whose account was hacked into due to poor game security. CASTRONOVA, supra note 3, at 166; Jay Lyman, Gamer Wins Lawsuit in Chinese Court Over Stolen Virtual Winnings, TECHNEWSWORLD (Dec. 19, 2003), http://www.technewsworld.com/story/32444.html?wlc=1315771673. See generally Joshua A.T. Fairfield, The God Paradox, 89 B.U. L. REV. 1017, 1025–60 (2009) (providing an overview of likely bases for game developer liability, including copyright and trademark infringement, DMCA violations, contract and property claims, and tort liability).

19. See infra Table 1 and accompanying text.
20. Id. See infra note 128 & Table 1 and accompanying text.
21. Id. See infra notes 129–32 & Table 1 and accompanying text.
22. See infra notes 129, 153 & Table 1 and accompanying text. Based on this phrasing, Web 1.0 online dispute resolution (ODR) technologies could be employed such as e-mail, automated software programs, or video conferencing outside of the virtual world, but typically not utilizing the 3-D technologies within the contours of these virtual worlds. See Lucille M. Ponte, Throwing Bad Money After Bad: Can Online Dispute Resolution (ODR) Really Deliver the Goods for the Unhappy Internet Shopper?, 3 TUL. J. TECH. & INTELL. PROP. 55, 65–86 (2001); Jennifer Sackin, Online Dispute Resolution With China: Advantageous, But At
unilaterally take action against players through a variety of self-help remedies, which have led to further court challenges.

Incongruously, these virtual realities often teach some of the key skills necessary for collaborative conflict resolution methods outside of traditional litigation, including strategic analysis of one's own and third party interests, understanding other perspectives through shifting online identities, balancing collaborative and competitive interactions with other parties, and exploring creative solutions to achieve objectives. Yet these virtual spaces seldom offer any meaningful opportunity for these skills learned in-world to be applied using the existing 3-D infrastructure to resolve these disagreements.

This article calls for a new conflict resolution approach: the utilization of “immersive dispute resolution (IDR)” to leverage both the communication and graphical technological advancements in 3-D virtual worlds and the collaborative and strategic thinking skills virtual participants readily acquire in these digital experiences. In this paper, Part II will discuss research on learning in virtual worlds with a special emphasis on the key collaborative conflict resolution skills garnered through exploration, engagement, and play in virtual environments. Part III examines current dispute resolution processes in forty-five 3-D worlds which emphasize adversarial methods and illustrate a failure to leverage the 3-D immersive technologies or the collaborative skills learned in these immersive environ-

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23. See infra note 128 & Table 1 and accompanying text.
25. See infra notes 94–95 and accompanying text.
26. See infra note 103 and accompanying text.
27. See infra notes 102–08 and accompanying text.
28. See infra notes 109–16 and accompanying text.
29. See infra notes 128, 146 & Table 1 and accompanying text.
30. See infra notes 153–66 and accompanying text.
31. See infra notes 109–12 and accompanying text.
32. See infra notes 27, 65, 89, 97 and accompanying text.
33. See infra Part II and accompanying text.
34. See id.
ments. Part IV will call for established dispute resolution for professional and organizational providers to spearhead greater integration of 3-D technologies with facilitative IDR processes to help leverage player-acquired collaborative skills in resolving owner-participant conflicts.

II. ACTIVE LEARNING OF COLLABORATIVE SKILLS IN 3-D VIRTUAL WORLDS

Learner engagement, or active learning, is considered essential to effective teaching, knowledge construction, and retention. Pedagogical experts opine that too much of education is focused on the symbolic presentation of facts and abstract concepts separated from either an appropriate context or a practical application. When information is divorced from context and practice, learners can become disengaged and are not able to retain information about or gain mastery of a subject matter. Researchers have also found that play can be a vital pedagogical tool for enhancing substantive learning.

However, to ignite effective learning, the play needs to be connected to challenging and meaningful tasks. Competitive online gaming is intention-
ally structured with "progressively more difficult tasks that challenge players at the 'edge of their region of competence' and require the learning of new strategies."\footnote{42}

Recently, there has been a surge of interest in the development of educational, or "serious," immersive games to increase learner engagement,\footnote{43} including the law school environment.\footnote{44} Some of this interest in virtual environments reflects the realization that today's students have grown up in a digital environment and are comfortable with emerging technologies.\footnote{45} This generation of students learns differently and finds it more difficult to learn in the traditional teach, test, and repeat way that baby boomers learned concepts.\footnote{46} Generally, these digital era students tend to prefer exploring ideas in solve... "wicked-problems" that have no simple closed solution. In itself, this is a benefit to the game... a complex, difficult and problematic challenge.

Facer et al., \textit{supra} note 37, at 408.
\footnote{42. Wideman et al., \textit{supra} note 37, at 3–4. See GEE, \textit{supra} note 37, at 67-68; McGONIGAL, \textit{supra} note 2, at 36.}
\footnote{44. See Proposal from David R. Johnson & Tanina Rostain to the Future of Legal Education Conference, Seriously Gamifying Legal Learning (Feb. 27, 2011), \url{http://dotank.nyls.edu/futureed/2011proposals/03sgll.pdf} [hereinafter Gamifying Proposal].}
\footnote{45. Facer et al., \textit{supra} note 37, at 399; Lim et al., \textit{supra} note 37, at 212; Marc Prensky, \textit{Digital Natives, Digital Immigrants}, 9 ON THE HORIZON 1, 1–3 (Oct. 2001).}
\footnote{46. GEE, \textit{supra} note 37, at 172–73; Prensky, \textit{supra} note 45, at 2-4; John Seely Brown, \textit{Growing Up Digital}, 32 \textsc{CHANGE} 10–20 (Mar./Apr. 2000) (ProQuest unpaginated). Professor Prensky stated that}

Today's students – K through college – represent the first generations to grow up with this new technology. They have spent their entire lives surrounded by and using computers, videogames, digital music players, video cams, cell phones, and all the other toys and tools of the digital age. Today's average college grads have spent less than 5,000 hours of their lives reading, but over 10,000 hours playing video games (not to mention 20,000 hours watching TV). Computer games, email, the Internet, cell phones and instant messaging are integral parts of their lives.

It is now clear that as a result of this ubiquitous environment and the sheer volume of their interaction with it, today's students \textit{think and process information fundamentally differently} from their predecessors. These differences go far further and deeper than most educators suspect or realize. "Different kinds of experiences lead to different brain structures," says Dr. Bruce D. Perry of Baylor College of Medicine. ... [I]t is very likely that \textit{our students' brains have physically changed} – and are different from ours – as a result of how they grew up."
a collaborative and interactive context with customizable, rather than static, content.\textsuperscript{47}

Since the 1990s, education researchers have examined the potential value of virtual worlds in the learning process.\textsuperscript{48} Research on training programs in 3-D synchronous and asynchronous virtual environments shows great educational potential in such varied fields as medicine,\textsuperscript{49} military,\textsuperscript{50} science,\textsuperscript{51} law,\textsuperscript{52} engineering,\textsuperscript{53} business,\textsuperscript{54} and computer science training.\textsuperscript{55}

Prensky, supra note 45, at 1 (emphasis added).

47. GEE, supra note 37, at 188; McGONIGAL, supra note 2, at 26-27; Lim et al., supra note 37, at 214, 223; Writing, Essay on What Kids Learn That's POSITIVE From Playing Video Games, MARCPRENsky.COM, 4 (2002), http://www.marcprensky.com/writing/; Brown, supra note 46. Ms. McGonigal, an accomplished video game designer and futurist, indicates that successful video games do not explain their rules upfront, but require the participant to puzzle out what they are supposed to do and how they are supposed to play the game. McGONIGAL, supra note 2, at 26. She states that

[...] this kind of ambiguous play is markedly different from historical, predigital games. Traditionally, we have needed instructions in order to play a game. But now we're often invited to learn as we go. We explore the game space, and the computer code effectively constrains and guides us. We learn how to play by carefully observing what the game allows us to do and how it responds to our input. As a result, most gamers never read game manuals.

Id.

48. Hobbs et al., supra note 38, at ¶ 1.3.2. One of the first virtual world communities used in an educational context was the University of Central Florida's ExploreNet Experiment. Id. See generally Charles E. Hughes & J. Michael Moshell, Shared Virtual Worlds for Education: The ExploreNet Experiment, 5 ACM MULTIMEDIA 145, 145-54 (Mar. 1997), http://www.cs.ucf.edu/~ExploreNet/papers/VA.Experiment1195.html (creation and testing of "Habitat" 2-D virtual world in which 100 elementary students learned how to construct virtual worlds in order to teach instructor-chosen concepts to their peers in 1995).


51. GEE, supra note 37, at 55-57; Facer et al., supra note 37, at 409-02; Yoav Yair, Rachel Mintz & Shai Litvak, 3D-Virtual Reality in Science Education: An Implication for Astronomy Teaching, 20 J. OF COMPUTERS IN MATHEMATICS AND SCI. TEACHING 293, 293–305 (2001), available at
Although still in its early stages, current pedagogical research illustrates that immersive game play has tremendous and often untapped potential for improving learner engagement and excitement about active learning. Unlike a standard classroom, these environments aid learning through both learner immersion in a 3-D world and interaction with peers and content in these environments. In these immersive spaces, participants can use avatars to shed a sense of self-consciousness and anxiety about grasping new information and skills. In some instances, a fantasy or mythical setting or other
context that the learner cannot possess or inhabit in the real world heightens
the sense of immersion and increases learner motivation and active learn-
ing.60 Further, virtual world participants become so immersed that they often
lose track of time when participating61 with "the game the only relevant real-
ity"62 which increases levels of engagement. Success over obstacles empow-
ers participants and fuels their desire to remain immersed in these online
worlds.63 In commercial games, high quality interfaces, graphics, and
sounds create a truly realistic sensory experience that promotes participant
suspension of belief and immersion in 3-D worlds.64 Immersive learning
environments can help to connect the traditional classroom with constructiv-
ist and situated learning and to aid curricular objectives through the use of
collaborative and interactive settings.65

Some academics may scoff at the value of immersive game play in edu-
cational institutions as lacking rigor66 and serving as just another fad in
"edutainment."67 However, pedagogical experts contend that serious games,
particularly 3-D immersive simulations, dovetail with three key learner-centered theories on the study of knowledge: cognitive constructivism, social constructivism, and situated cognition or learning.

Cognitive constructivism eschews traditional objectivist learning theory based on a transmission of information from instructor to student or as truths objectively discovered in the learning process. Constructivism focuses primarily on the notion that an individual constructs knowledge through first-person experiences and interaction with information. Through these interactions, learners construct and attach personal meaning to concepts from these experiences. This approach views learners, not as passive recipients of information, but as gaining knowledge through experiences.

[g]ames technologies . . . have for some time struggled to be taken seriously within the educational arena. Games, with their emphasis on fun and pleasure, and their often (to an adult eye) repetitive challenges, have until recently been seen as a distraction from the more serious business of computer aided learning. . . [I]t is only relatively recently that sustained educational research has been carried out in this area. What research that does exist, however, is increasingly pointing towards the potential of computer games to offer children powerful opportunities not only to learn through experience, but to develop meta-level reflections on strategies for learning.

Id. (citations omitted).


69. See infra notes 72–77 and accompanying text.

70. See infra notes 78–83 and accompanying text.

71. See infra notes 84–90 and accompanying text.

72. Dickey, supra note 38, at 449.

73. Almala, supra note 59; Powell & Kalina, supra note 68.

74. Almala, supra note 59, at 441; Facer et al., supra note 37, at 400; Powell & Kalina, supra note 68; Quay, supra note 68, at 106–07, 109; Wideman et al., supra note 37, at 3–4.

75. Dickey, supra note 38, at 440; Powell & Kalina, supra note 68; Wideman et al., supra note 37, at 2–3. See McConigal, supra note 2, at 49.

76. Almala, supra note 59, at 35. Professor Almala indicated that constructivism is a post-modern approach to learning and indicates that the five main aspects of constructivism are “(1) a complex and relevant learning environment; (2) social negotiation; (3) multiple perspective and multiple modes of learning; (4) ownership in learning; and (5) self-awareness and knowledge construction.” Id. He added that these five factors are essential to an effective online learning course. Id.
Experiential education or apprenticeship opportunities where individuals “learn by doing” are other examples of the cognitive constructivist perspective. In virtual realities, participants can roam a wide range of both realistic environments, like The Sims Online or Second Life, or fantasy environments, such as medieval World of Warcraft or space age EVE Online. Residents of virtual worlds experience and interact with in-world content learning about the world, its norms, and limitations.

Another branch of constructivism, social constructivism, indicates that learning is at its core a social activity or experience. Social constructivism moves beyond individual experiences and suggests that learning emanates from collaboration and social interaction between small groups of learners. These small group interactions between students or students and an instructor will help transcend and amplify the individual’s ability to learn on their own. This perspective moves the role of teacher from “sage on the stage” to “guide on the side.” The social aspects of virtual worlds can be learned through interacting and allying one’s self with other participants in-world as well as learning through interactions on numerous ancillary web sites, discussion boards, and online forums and exchanges.

77. Quay, supra note 68, at 109; John Seely Brown et al., Situated Cognition and the Culture of Learning, 32 EDUC. RESEARCHER 39, 39-40 (Jan.-Feb. 1989); Wideman et al., supra note 37, at 4. Professor Wideman states that Learning in advanced gaming occurs largely as an iterative process in which concrete experience is observed and reflected on, leading to the development of mental models and inferences that are then applied to the environment to test emergent conclusions, generating further concrete experience. This “trial-and-error” approach to meeting the types of challenges common to most recreational games has been seen as supporting the development of logical thinking and problem-solving skills. The process embodies Kolb’s four-stage model of effective experiential learning; it is how children naturally learn outside of the school context, and it forms the basis for many types of expert practice.

Id. at 3 (citations omitted). See infra note 110 and accompanying text.

78. Almala, supra note 59, at 35; Dickey, supra note 38, at 440, 445; Hobbs et al., supra note 38, at ¶ 1.1; Lim et al., supra note 37, at 218, 223; Powell & Kalina, supra note 68; Quay, supra note 68, at 106–07. See McGONIGAL, supra note 2, at 49.

79. See supra note 75 and accompanying text. See GEE, supra note 37, at 187 (discussing social nature and team work inherent in online games and worlds). Research has also shown that children who play games that require them to help others to succeed are much more likely to exhibit helpful attitudes in their real world interactions. McGONIGAL, supra note 2, at 113–14.

80. Dickey, supra note 38, at 441, 44849; Powell & Kalina, supra note 68; Quay, supra note 68, at 106–07.

81. Lim et al., supra note 37, at 229; Learning Theories and Transfer of Learning, OTEC, http://otec.uoregon.edu/learning_theory.htm (last visited Sept. 29, 2011).

82. Hobbs et al., supra note 38, at ¶¶ 3.1, 3.3, 4; Lim et al., supra note 37, at 212; Quay, supra note 68, at 107–08; Wideman et al., supra note 37, at 4–5. See Almala, supra note 59.
help guide newcomers early on through hints that may appear on screen as the player becomes more acquainted with the world.83

Situated cognition or learning largely values the importance of learning by active participation, rather than just experiences, in a broader authentic social or cultural context.84 This learning theory looks to opportunities for learners and teachers to participate in challenging, problem-solving activities, to take on multiple roles and perspectives,85 and to model the behavior of mentors who are experts in the domain.86 The situated learner is both influenced by and influences the learning environment, first as a novice and then learning and adapting toward greater mastery and fuller participation in an interconnected domain.87 A newcomer starts out on the periphery of a world but, through practice and participation, acquires greater knowledge and stronger connection between the learner and other individuals carrying out similar or shared activities in a “community of practice.”88 As a commu-

83. See Hobbs et al., supra note 38, at ¶ 3.3; Lim et al., supra note 37, at 222.
84. Gee, supra note 37, at 8-9; Dickey, supra note 38, at 448; Quay, supra note 68, at 107–08; Wideman et al., supra note 37, at 3–4. In reviewing an Active Worlds 3-D modeling class, Professor Dickey stated,

[The] class also supported many characteristics of situated learning. Underlying situated learning is the belief that “knowledge is contextually situated and is fundamentally influenced by the activity, context, and culture in which it is used.” Characteristics of situated learning include authentic context and activity, access to expert modeling, multiple roles and perspectives, and scaffolding and mentoring.

Dickey, supra note 38, at 447–48 (citations omitted)
85. Gee, supra note 37, at 54–55; Dickey, supra note 38, at 448-49; Wideman et al., supra note 37, at 3.
86. Dickey, supra note 38, at 448-49; Hobbs et al., supra note 38, at ¶ 3.3; Lim et al., supra note 37, at 218, 229; Wideman et al., supra note 37, at 4–5.
87. Quay, supra note 68, at 107–08; Wideman et al., supra note 37, at 4–5.
88. This tentative beginning at the edges is referred to as noted theorists Jean Lave and Etienne Wenger’s “concept of legitimate peripheral participation.” Quay, supra note 68, at 107. See Gee, supra note 37, at 123–24. Professor Gee notes that effective games allow novices to work through “subdomains” of the online world that are basic training modules for the fuller world and are not merely “thrown into the ‘real’ thing—the full game—and left to swim or drown.” Id. at 123–24.
89. Researchers Lave and Wagner are also credited with this idea. Hobbs et al., supra note 38, at ¶ 2.1; Quay, supra note 68, at 108, 111; Wideman et al., supra note 37, at 4–5.

Communities of practice are groups of people who share a concern or a passion for something they do, and learn how to do it better as they interact regularly. The benefits include engagement with activities, feelings of connectedness, increased satisfaction[, ] belonging and trust, support, increased confidence, personal development and even a sense of fun. Such groups are defined by what members do together, and are seen to develop around ‘things that matter’, such as learning and the kinds of open ended problems that benefit from informal col-
nity of practice is developed, it is strengthened by overlapping relationships between participants, activities, and worlds over a period of time.90

For example, a novice in a 3-D world may only be tangentially involved in an online community at the start. To gain knowledge, the new user may consult manuals and ancillary chat rooms or message boards to learn more about and to problem-solve through the different aspects or levels in the world.91 Through continued engagement, the participant learns through practice and interactions with in-world content and through greater connectedness with more experienced members participating in that virtual world.92 Eventually, the novice becomes a more experienced, knowledgeable member of the community who may influence or shape its future through participation, interaction, and offering advice to both less and more experienced members of the world.93

Overall, 3-D worlds provide fertile grounds for learning under these various learning theories. Within the context of these virtual worlds, commercial game developers expect and design for learning to take place in order for that knowledge to be applied to in-world activities.94 In online gaming and virtual realities, participant learning cycles generally follow four basic steps: 1) gathering information through interaction; 2) analyzing information and identifying relationships between interactive information; 3) problem-solving and making decisions about the information gathered; and, 4) selecting options and taking action based upon the collected knowledge and prior practice.95 Throughout this cycle, players must interact, collaborate, strategize, and problem-solve to progress through the game or proceed through the world.96 Although world developers never intended it,
this iterative cycle tracks closely the key steps of collaborative methods of dispute resolution, such as interest-based negotiation and mediation.\footnote{See infra notes 98–116 and accompanying text. See also Sackin, supra note 22, at 267–68 (author notes importance of mediation as “dominant method” of conflict resolution in China).}

In a virtual world, participants must gather information through their exploration of and experiences in-world, their interaction with other players and in-world content and their consultation of play guides, discussion boards, chat rooms, and other informational sources.\footnote{See supra notes 88, 92–93 and accompanying text.} Some information may not be known or readily identifiable, and a player may need to use strategic thinking to determine how to find this information.\footnote{Fabricatore, supra note 40, at ¶ 3.2; Lim et al., supra note 37, at 214.} Similarly, in preparing for and participating in a real world negotiation or mediation, parties must also collect information either through their personal experience or by a review of relevant documentation.\footnote{See infra notes 98–116 and accompanying text. See also Sackin, supra note 22, at 267–68 (author notes importance of mediation as “dominant method” of conflict resolution in China).} There may be information that is missing because it is in the hands of another party or not recognized by either party as important to their conflict. Once in the session, parties may gather additional information through interactions with the other party, such as party opening statements, discussions of disputed facts, and accumulation of other relevant documents.\footnote{Martín A. Frey, Alternative Methods of Dispute Resolution 84 (2003); Ponte & Cavenagh, supra note 22, at 38, 54; Lucille M. Ponte & Thomas D. Cavenagh, Alternative Dispute Resolution in Business 62–63, 70–71 (1999).}

Once information has been collected, then a party must analyze that information to determine its strategic relevance in accomplishing certain tasks or quests to advance to the next level or to more fully participate in a virtual world.\footnote{See supra note 100, at 84, 1523; Ponte & Cavenagh, supra note 100, at 70–71, 99.} Players may take on multiple identities through avatars to examine information from differing perspectives to determine its meaning and value as to in-world tasks or quests.\footnote{See supra notes 92–93 and accompanying text.} The player may also decide to form allianc-

A key feature of virtual worlds is their flexibility about identity. They allow players to assume multiple identities and take on new social roles. Multiple identities and role playing are hardly unique to virtual worlds. Nevertheless, the graphical representation of avatars is one of virtual worlds' most salient characteristics, and it creates a wide range of interesting problems about identity and personal privacy. Virtual spaces encourage people to adopt new and multiple identities, which are often very different from their real-world identity. The rules of the space, controlled by the game gods, regulate what kinds of identities peo-
es and collaborate with others in an effort to improve their comprehension of key facts and in-world rules and norms as well as further their common objectives. In an actual negotiation or mediation, participants also need to analyze information and determine its relevance in processing their dispute. Parties will also have to consider another party's interests, at times putting themselves in another's shoes, to test their understandings and analyses of the issues. The parties will need to collaborate with each other and/or with a third party neutral to generate options for achieving party interests. In multi-party disputes, parties may also decide to form alliances with others to promote their understanding of key concerns and to advance their interests.

Whether acting individually or in concert with others, the utilization of problem-solving skills are fundamental to both leveling up or advancing in online role-playing games as well as successfully concluding real world

\begin{quote}
STATE OF PLAY, supra note 3, at 10. See GEE, supra note 37, at 49–50 (discussing notions of virtual, real world and projective identities in online role-playing games).

104. CASTRONOVA, supra note 3, at 114–15; GEE, supra note 37, at 37–38; McGONIGAL, supra note 2, at 13, 361; Beth Simone Noveck. Democracy-The Video Game, Virtual Worlds and the Future of Collective Action, in STATE OF PLAY, supra note 3, at 2585 9. Some experts contend that the collaboration found in online worlds and gaming can be utilized to help solve a myriad of real world problems. McGONIGAL, supra note 2, at 266-95; Noveck, supra, at 276–79.

105. FREY, supra note 100, at 83-84, 152–53; PONTE & CAVENAGH, supra note 100, at 62–63, 70–71.

106. FREY, supra note 100, at 86, 91, 152-53; PONTE & CAVENAGH, supra note 100, at 62–63, 70–71.

107. FREY, supra note 100, at 86-89, 95, 153; PONTE & CAVENAGH, supra note 100, at 63, 70, 73–74, 99.

108. See Alana Knaster, GREEN LEADERSHIP (UN)CONFERENCE: Resolving Conflicts Over Climate Change Solutions: Making the Case for Mediation, 10 PEPP. DisP. RESOL. L.J. 465, 469–71, 479–80 (arguing for use of mediation in multi-party environmental disputes where parties seek to reach consensus amongst varied interests and within existing community or business relationships).

109. GEE, supra note 37, at 78, 187; McGONIGAL, supra note 2, at 130–31; Facer et al., supra note 37, at 408; Hobbs et al., supra note 38, at ¶¶ 3.1, 3.3, 4; Wideman et al., supra note 37, at ¶2, 3. See supra note 41 and accompanying text. Professor Wideman and his peers indicate that

\[10\] to capture and hold player interest, games are now being created that engage players in a wide range of potentially rewarding activities and challenges, requiring them to actively investigate the game environment and apply different problem-solving strategies. Game play in genres such as role-playing, simulation, and real-time strategy now calls on considerable in-situ learning and the application of a range of cognitive and metacognitive skills. In addition, the increasingly popular genre of multiplayer games require players to employ social learning
negotiation and meditation sessions. Whether it is a team effort in a virtual world or closing the gap between disputing interests, parties must weigh their interests and objectives and decide strategically what their next steps will be to accomplish their objectives. Filtering various options through a trial-and-error approach can be integral to finding strategies and outcomes suitable for gamers carrying out in-world tasks as well as for opposing parties trying to resolve disputes in interest-based negotiation and mediation conferences.

skills in support of collective problem solving, social negotiation, and distributed learning.

Wideman et al., supra note 37, at ¶2 (footnote and citation omitted). See McGONIGAL, supra note 2, at 3031, 230–31, 309–10 (discussing various aspects of collaborative play from team raids in World of Warcraft and cooperative fun in Castle Crashers to civic-minded community efforts in Wikipedia and World Without Oil).

110. Frey, supra note 100, at 86-89, 153–54; Ponte & Cavenagh, supra note 100, at 63, 73–74, 100–01.

111. Fabricatore, supra note 40, at ¶ 4. Professor Fabricatore indicates that strategic thinking is at the heart of the decision-making stage in online environments.

In this stage, the player has already gathered and analyzed all the information that she considers necessary to "make the next move", has drawn all her conclusions about the status of the virtual world, and consequently she faces the task of deciding what to do. In this context, strategic thinking is very probably the most important talent required. In videogames very few decisions are made based on the certainty of their outcome, and usually the player decides based on her belief of how the results of her course of action will affect her struggle to achieve the goals of the game, and based on the resources available and needed to act. Therefore, making decisions usually imply managing risks and resources, which in turn stresses the importance of strategic thinking, and how the decision-making stage is an ideal context to develop it. Additionally, decisions are never free: as mentioned in the previous section, every game as [sic] rules, and whatever the player wishes to do, she will always be subject to the rules. Therefore, known rules are always considered as a fundamental element to make decisions. Furthermore, unknown rules may be a good teacher to refine strategic thinking, once the player analyzes a strategy that did not lead to the expected outcome, and determines why and how the unknown rules (and eventually other unexpected events) determined the failure of her strategy.

Fabricatore, supra note 40, at ¶ 3.2.

112. Gee, supra note 37, at 65, 217; Facer et al., supra note 37, at 407; Wideman et al., supra note 37, at 3. See supra note 76 and accompanying text. Professor Facer and her research team found that especially in "massively multiplayer online games, players are fully able to develop strategic and critical thinking [skills] ... as part of a gaming community in which the dominant pedagogic approaches consist of just-in-time learning, trial and error and participation in activities with more knowledgeable others." Facer et al., supra note 37, at 407. See supra notes 77 and accompanying text.
Lastly, gamers must then choose their options and take action, sometimes being successful in their strategies, other times failing and returning back to a lower level by losing points or prestige they previously earned. Immersive environments reward persistence in practicing skills over and over until one achieves expertise. Similarly, disputing parties may make positive headway in a negotiation or mediation session applying certain strategies. However, at other times their chosen strategies may cause setbacks in the process or completely wipe out any common ground the parties may have initially achieved. By continuing to persist in seeking out common ground, disputing parties may be able to achieve consensus and settlement in real world disputes.

The game designs of many immersive environments often track key steps and skills needed for collaborative dispute resolution methods. Yet with all of this emphasis on collaboration and strategic thinking, it is unfortunate that few virtual worlds make any meaningful use of this game-based learning or immersive technologies in handling conflicts between developers and participants.

III. DEVELOPER-PLAYER CONFLICTS AND ADVERSARIAL DISPUTE RESOLUTION OPTIONS IN MAJOR VIRTUAL WORLDS

In immersive environments, End User Licensing Agreements (EULAs) typically specify the rights and responsibilities of virtual world developers and players in-world. These EULAs may be informally supplemented through the development of in-world norms or superseded by real world civil and criminal laws. Normally, these agreements focus on the preservation of intellectual property rights and the maintenance of developer

113. Fabricatore, supra note 40, at ¶ 4. See supra notes 92–93 and accompanying text.
114. See supra notes 92–93 and accompanying text.
115. See supra notes 77, 87, 93 & 110 and accompanying text.
116. FREY, supra note 100, at 86-88; 100; PONTE & CAVENAGH, supra note 100, at 63, 70–74, 76–77, 100–101.
117. CASTRONOVA, supra note 3, at 157; Fairfield, supra note 17, at 1022; Jankowich, supra note 5, at 1, 2, 5, 9–12; Quinn, supra note 2, at 759, 772–74; Risch, supra note 17, at 2, 27–28. See supra note 17 and accompanying text.
118. CASTRONOVA, supra note 3, at 157; Risch, supra note 17, at 3, 10–12, 33–36. See supra note 17 and accompanying text. The resolution of disputes between players, perhaps with the assistance of a mediator, are generally not addressed in EULAs, but might occur informally through in-world norms. See Schmitz, supra note 22, at 213–14 (author notes development of "community courts" to handle buyer-seller disputes on eBay India).
119. See supra note 13 and accompanying text. Risch, supra note 17, at 42–43.
120. Fairfield, supra note 17, at 1018, 1022; Jankowich, supra note 5, at 79; Quinn, supra note 2, at 759, 772–773, 780. Mr. Quinn notes that
control over the continued operation of, and player behavior in, the immersive environment. World owners usually maintain a unilateral self-help right to terminate individual participation for any or no reason at all. Because EULAs, like most online agreements, are clickwrap contracts of adhesion, there are no opportunities for world residents or consumers to negotiate any terms, including dispute resolution options. EULAs are routinely criticized for being heavily weighted toward the protection of developer rights and remedial options while offering little to no protection of participant rights.

The universe of immersive environments is an ever-changing one. This author chose forty-five immersive worlds with an effort to represent sites for children, teens, and adults, as well as 3-D worlds with both gaming versus social networking objectives. Each selected site was reviewed to identify:

The licensors of these virtual worlds, overwhelmingly American corporations, have chosen to preemptively address all potential questions of virtual property or general user rights of virtual worlds via adhesion contracts, commonly known as clickwrap licenses. These license agreements are exhaustive and as aggressively drafted as U.S. consumer contract law allows. They usually require the licensee to disclaim all potential property rights and the right to sue. Additionally, the agreements grant absolute authority over the licensee's ability to access the world and control virtual assets to the licensor. This structure effectively installs another level of alternative dispute resolution prior to arbitration. These agreements constitute an extremely contractarian approach to the online Wild West.

Quinn, supra note 2, at 759.

121. Fairfield, supra note 17, at 1023-24; Jankowich, supra note 5, at 712; Quinn, supra note 2, at 759, 773, 780. Mr. Jankowich noted that "[t]ension permeates the governing agreements because virtual worlds are controlled by authoritarian proprietors and are populated by crowds of participants who seek unscripted interaction." Jankowich, supra note 5, at 7. See Quinn, supra note 2, at 759.

122. Fairfield, supra note 17, at 1023; Jankowich, supra note 5, at 18-20, 43-48; Quinn, supra note 2, at 759, 773, 780. See infra Table 1.

123. Fairfield, supra note 17, at 1022; Jankowich, supra note 5, at 7, 49-50. Many users do not read these agreements because of their complex legalese and inability to make any changes to these virtual world agreements. Jankowich, supra note 5, at 49-50. The continuing standardization of terms of service in virtual worlds means that participants who few alternative options to oppressive EULAs. Id.

124. See generally Fairfield, supra note 17, at 1018-24, 1063-68 (asserting that "game gods" claim too much control in virtual worlds and should be viewed as similar to telephone companies under minimalist common carriage framework); Jankowich, supra note 5, 7-54 (criticizing various aspects of EULAs as oppressive and one-sided form of government in virtual environments); Quinn, supra note 2, at 780-89 (calling for application of European Union's approach to consumer contracts which provides broader protections from unfair terms in contracts of adhesion); see also Annalee Newitz, Dangerous Terms: A User's Guide to EULAs, ELECTRONIC FRONTIER FOUNDATION (Feb. 17, 2005), http://www.eff.org/wp/dangerous-terms-users-guide-eulas.

125. See infra Table 1. Only currently active sites as of November 4, 2011 were considered. Sites that were only in beta form were excluded.
(1) whether or not the terms of service permitted owners to terminate players unilaterally, regardless of the continued existence of the immersive environment; (2) whether the terms of service included any clause about the resolution of disputes between the site’s owner and participants; (3) what dispute resolution processes are identified for player-developer disputes; and (4) what choice of law was mandated in the terms of service. Although many 3-D virtual environments are located in the United States, sites with national bases outside the United States were considered as well because many expressly target English-speaking users.

Although game-based learning promotes collaboration, few worlds ever leverage their 3-D capabilities or their players’ collaborative skills in order to cooperatively resolve in-world disputes. When disputes arise between developers and end-users, most immersive worlds still look to adversarial processes in the real world to resolve these conflicts. A majority of the selected sites require the use of traditional world courts in the developer’s home country or home state without any reliance on immersive technologies. Nearly all of the immersive worlds considered retained a unilateral right to terminate participants for any or no reason.

Those sites that do not demand litigation often select adversarial arbitration methods. Depending upon the site, these arbitrations may be in-person, by telephone or other non-appearance-based methods, such as e-mail or written submissions. Some sites opting for arbitration before the American Arbitration Association (AAA) required the use of its commercial rules, while others allowed for the use of its consumer rules, which are better-suited for typical players or end-users. Despite the technological complexity of these sites, most 3-D worlds did not typically include hyperlinks, video clips, or podcasts to educate or more fully inform the public.

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126. See infra Table 1.
127. Id.
128. Id.
129. Id.
about arbitration processes. In some instances, sites did provide a link to the American Arbitration Association with little further direction.\textsuperscript{132}

Several sites made limited use of informal negotiation, such as requiring a party to negotiate with a developer’s law department or customer service before filing a claim for arbitration.\textsuperscript{133} However, these sites do not indicate how this method will proceed or provide any explanatory information to users. In addition, it is difficult to see how facts will be independently determined or verified\textsuperscript{134} or how a typical consumer will fare without adequate negotiation, training, or experience against more seasoned customer service or legal staff\textsuperscript{135}. While online mediation might help the parties to more objectively determine facts and even the playing field between participants and developers, none of the reviewed immersive sites identified mediation as a dispute resolution option.\textsuperscript{136}

These 3-D worlds are nearly uniform in seeking to outsource their adversarial conflict resolution mechanisms to entities outside of the immersive environment; primarily the courts and arbitration services providers.\textsuperscript{137} Even in those virtual worlds that utilize informal negotiation, parties are directed to the company’s law firm or customer service organization outside of the immersive realm.\textsuperscript{138} Only one immersive world indicated an opportunity to

\begin{itemize}
\item See, e.g., The Sims 3, supra note 127; Battle.Net Terms of Use, BLIZZARD ENTERTAINMENT, http://us.blizzard.com/en-us/company/about/termsofuse.html (last updated June, 7 2012) (terms of use website for 3-D game of mythical battles and cooperative group raids).
\item See Risch, supra note 17, at 36–37.
\item See infra Table 1.
\item Id.
\item See, e.g., Aion User Agreement, NCsoFT, http://us.ncsoft.com/en/legal/user-agreements/aion-user-agreement.html (last visited Dec. 29, 2011) (thirty-day negotiation period with customer service before arbitration may be sought); City of Heroes User Agreement, NCsoFT, http://us.ncsoft.com/en/legal/user-agreements/city-of-heroes-user-agreement.html (last visited Dec. 29, 2011) (thirty-day negotiation period with legal department which process owner may extend to ninety days before arbitration may be sought); Everquest Terms of Service, SONY ONLINE ENTERTAINMENT,
resolve disputes through an in-world adversarial process, Active Worlds. Its terms of service refer to mandatory arbitration either in Boston, Massachusetts, at the AAA offices, or before the Active Worlds Tribunal. However, the Active Worlds site offers no further public explanation or information about the procedures utilized in this immersive tribunal.

IV. PROPOSAL FOR GREATER USE AND INTEGRATION OF IDR PROCESSES INTO DEVELOPER-PARTICIPANT DISPUTES

The results of Table 1 make it clear that most virtual world sites are either unwilling or unable to utilize IDR involving collaborative or facilitative dispute resolution methods. Part of this reluctance may stem from concerns about the time and costs involved in developing, operating, and maintaining in-world dispute resolution processes. Other sites may be concerned about detracting from their fantasy or role-playing environments with real world problems. Many sites may simply prefer to rely upon courts to set precedent in their conflicts in hopes of supporting their legal position. The costs of court and arbitration proceedings and travel to distant states or nations may also be a way for some virtual worlds to deter small-dollar claims by consumers from ever being brought.

Regardless of the reason, it is obvious that facilitative dispute processes are largely nonexistent to resolve owner-player disputes in virtual environments. The emphasis has been on adversarial processes that may only serve to further alienate disgruntled users from developers and to harm these continuing commercial relationships. One important step forward would be to offer and promote in-world mediation services that draw upon users'
collaborative and strategic skills garnered from game-based learning in virtual worlds. These virtual worlds could hyperlink to sites or offer video clips or podcasts explaining the mediation process.149

Most end-users have little experience with or knowledge of collaborative dispute resolution methods. Therefore, any impetus to use facilitative processes in IDR will need to come from existing dispute resolution providers. Currently, most dispute resolution professionals and organizations seem to be sitting passively on the sidelines of 3-D virtual worlds.150 Yet organizations such as the AAA151 or the Better Business Bureau Online152 have tremendous experience mediating disputes between consumers and businesses. In many instances, they already possess connections with a broad range of industries, including virtual worlds. These types of entities have professional administrative staff, lists of experienced mediators, and established rules of procedure that have been tested for years. Rather than rest on traditional approaches, dispute resolution providers need to reach out to a new generation and to recognize the natural synergies between their services and the skills and abilities learned in immersive environments. These organizations could work with virtual worlds to develop in-world dispute resolution centers that have often been suggested but seldom carried out in full measure. These organizations could also provide opportunities for members of the public to learn about and practice facilitative dispute resolution pro-

149. See Bragg v. Linden Research, Inc., 487 F. Supp. 2d 593, 607 (E.D. Pa. 2007) (court found dispute resolution clause unconscionable and indicated that virtual world owner should provide hyperlink in terms of service to rules and costs of arbitration).


cesses in immersive environments. While game-based learning has laid the foundation for collaborative skills and strategic thinking, these providers could breathe life into IDR processes by setting up shop in virtual worlds or allowing developers and participants in the avatar form to handle their disputes using immersive technologies on their sites.

Some commentators might wonder why simply using telephone, online video conferencing, e-mails, or other non-appearance-based adversarial proceedings are not sufficient to handle these in-world conflicts. Three key reasons exist for supporting facilitative IDR processes to resolve in-world disputes. First, unlike other forms of interaction, research shows that virtual worlds promote collaboration, creativity, role-playing, and strategic decision-making. As discussed earlier, immersive environments develop skills essential to effective facilitative dispute resolution methods. Further, the use of an avatar-mediator will help to level the playing field between developer and player, to more objectively determine the relevant facts and to aid the parties in exploring options and fashioning mutually acceptable outcomes. This approach may also allow for community norms to develop around collaboration and strategic thinking to improve overall community life and cooperative norms in the virtual world. Through fair and effective dispute resolution programs, developers may also end up improving overall customer satisfaction and maintain greater player loyalty to their 3-D sites.

Second, any formal dispute resolution process would be alien to many users of virtual worlds and experienced parties, such as a developer’s customer service personnel or legal representatives, would have a clear unfair advantage over the average consumer. The anonymity of the avatar and the screen of technology may help some participants to more candidly participate in the process than if they had to expose their own identities or be subjected to personal scrutiny. Whether it is an informal negotiation or a

153. See supra note 22 and accompanying text.
154. See Part II, supra and accompanying text.
155. See supra notes 94–116 and accompanying text.
156. See PONTE & CAVENAGH, supra note 22, at 62–65.
157. See supra notes 104 & 118 and accompanying text.
159. See supra notes 133, 135 & 138 and accompanying text.
160. See PONTE & CAVENAGH, supra note 22, at 24–25; Galves, supra note 135, at 44–45; Schmitz, supra note 22, at 203-04. Professor Schmitz stated that computer-mediated communications may create comfort and empowerment benefits for consumers by providing a sense of anonymity and allowing them to submit and respond to evidence and
full-blown adversarial process, laypeople may feel more at ease behind the masks of their avatar and less comfortable in processes grounded in direct conflict engagement.\textsuperscript{161} The IDR process may move forward more smoothly if an individual's lack of confidence or self-consciousness about conflict is reduced or alleviated in the immersive proceeding.\textsuperscript{162}

Third, the use of 3-D technologies is more likely to heighten party engagement in the conflict resolution process than flat two-dimensional (2-D) approaches.\textsuperscript{163} Typical 2-D communication methods in prior ODR use, such as testimonies from the comfort of their computers. . . . Some individuals become more defensive, adversarial, and even offensive when they are F2F with opponents. Defensive posturing can lead parties' discussions off-course and dilute the substance of case presentations. . . . Privacy and anonymity may also lead parties to be more forthright and truthful in their statements. Although it seems that anonymity would prompt dishonesty, it actually may create a space for comfortable but contained communications. (footnotes omitted).

Schmitz, \textit{supra} note 22, at 203–04.

161. \textit{See supra} note 160 and accompanying text. Professor Galves notes that using an online dispute resolution (ODR) process allows consumers to interact in an environment with which they are familiar and comfortable—the Internet. Traditional courtrooms and conference rooms of mediators and arbitrators involve legal formalities and an "us versus them" environment that often intimidates parties involved in a dispute. Additionally, many e-commerce consumers have far less experience in dealing with attorneys and the process of litigation or ADR than their counterparts who might be institutional sellers from large companies. . . . Placing the parties in a comfortable and familiar forum tends to allow for a faster and more relaxed resolution of the dispute that is focused on the merits. . . .

ODR also avoids the common problem of party confrontations that are inherent in traditional courtrooms and ADR conference rooms. Parties do not have the opportunity to look into each other's eyes and try to intimidate one another, or force each other into submission with their obvious attributes of wealth, or have lawyers cross-examine the parties in a confrontational manner. Rather, the only thing being considered in ODR are the merits of the dispute . . . The dispute is stripped down to the essence of the parties' interests and positions.

Galves, \textit{supra} note 135 at 44–45 (footnotes omitted).

162. \textit{See supra} notes 159–60 and accompanying text.

163. Fairfield, \textit{supra} note 3, at 1021. Professor Fairfield stated that

From a two-dimensional interface, virtual worlds provide a three-dimensional context. Humans instinctively think in three dimensions, and this new context has proven extremely attractive to millions of players worldwide. Yet despite the widespread adoption of virtual world technology, legal analysis of the issues arising in virtual worlds is still in its early stages.

\textit{Id.}; \textit{see supra} note 64 and accompanying text.
as e-mail, automated software programs, or video conferencing, never effectively captured or maintained public interest in these systems. Game-based learning has shown that participants are more likely to persist in tasks and remain engrossed if high quality interfaces, graphics and sounds create an immersive sensory experience. Participants in these virtual environments have come to expect these quality immersive experiences, which could be replicated within the contours of the game through a 3-D dispute resolution center or processes or by dispute resolution providers on their own sites.

As more and more individuals gain collaborative and strategic abilities in 3-D worlds, it would be unfortunate to see those skills ignored aside once a conflict arises between an end-user and a developer. With millions already inhabiting virtual worlds and millions more expected to do so in coming years, the skills and technological foundation for IDR has already being laid in 3-D immersive games and social networking sites and hold the promise for future experimentation and development in the conflict resolution field. It is up to forward-thinking dispute resolution providers and professionals to recognize the natural connections between their facilitative services and the collaborative skills and strategic thinking abilities learned in immersive environments every day. A new digital generation continues to live, learn, and collaborate in virtual worlds. While ODR processes never truly won meaningful public support, IDR could effectively bring together 3-D immersive technologies with facilitative dispute resolution skills. With proper support from and planning by conflict resolution professionals and organizations, immersive dispute resolution can become the next major evolution of dispute resolution in the coming decades.

164. See supra note 22 and accompanying text; see generally PONTE & CAVENAGH, supra note 22, at 144-50 (authors spell out main issues that must be resolved in order to improve public awareness and use of online dispute resolution).

165. Schmitz, supra note 22, at 216; Sackin, supra note 22, at 258. See generally PONTE & CAVENAGH, supra note 22, at 144-50 (authors spell out main issues that must be resolved in order to improve public awareness and use of online dispute resolution); see supra note 22 and accompanying text.

166. See supra note 64 and accompanying text.


168. Fairfield, supra note 17, at 1021. Professor Fairfield indicated that 3-D virtual worlds "may become the next iteration of Internet technology." Id. See supra note 165 and accompanying text.
Table 1: Nature of Dispute Resolution (DR) Clauses in Forty-Five Imersive Environments**

(as of Nov. 4, 2011 - listed alphabetically)

<table>
<thead>
<tr>
<th>Immersive Environment (Game Developer's National Base)</th>
<th>No Owner-Player DR Clause</th>
<th>Unilateral Termination Clause</th>
<th>Negotiation</th>
<th>Binding Arbitration</th>
<th>Litigation and/or Choice of Law</th>
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<tbody>
<tr>
<td>3D Planets (US/Canada)</td>
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<td>State court of MI or provin-</td>
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<td>Canada; MI or Ontario law</td>
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<td>Active Worlds (US)</td>
<td>✓</td>
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<td>Mandatory; AAA in</td>
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<td>Boston, MA or Active</td>
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<td>Worlds Tribunal</td>
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<td>Aion (South Korea)</td>
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<td>Informal negotiation</td>
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<td>required 30 days before filing for</td>
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<td>person, online,</td>
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<td>or telephone;</td>
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<td>outside US,</td>
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<td>in Austin, TX;</td>
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<td>no class</td>
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<td>actions</td>
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<tr>
<td>Avination (UK)</td>
<td>✓ Has clause but does not specify any DR method only choice of law</td>
<td></td>
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<td>If arbitration</td>
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<td>not elected</td>
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<td></td>
<td></td>
<td>then courts of Austin, TX; TX law</td>
<td></td>
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<tr>
<td>Blue Mars (US)</td>
<td>✓</td>
<td></td>
<td></td>
<td>Mandatory; Claims &lt;</td>
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<td>$10,000; nonappear-</td>
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<td>ance-based; AAA under consumer rules; by</td>
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<td>telephone,</td>
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<td>Claims &gt; $10,000;</td>
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<td></td>
<td>courts in city and county of San Francisco, CA; CA law</td>
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<tr>
<td>Game</td>
<td>Jurisdiction</td>
<td>Online or Writing</td>
<td>Dispute Resolution Options</td>
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<tr>
<td>Call of Duty – MW 3 (US)</td>
<td>State or federal courts of LA county, CA</td>
<td>✓</td>
<td>Informal negotiation required 30 days before filing for arbitration; owner may extend process up to 90 days</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chit Chat City (Canada)</td>
<td>Provincial court in Montreal, Quebec, Canada; laws of Quebec</td>
<td>✓</td>
<td>Informal negotiation required 30 days before filing for arbitration; owner may extend process up to 90 days</td>
<td></td>
<td></td>
</tr>
<tr>
<td>City of Heroes (South Korea)</td>
<td>State or federal courts of Manhattan, NY; NY &amp; US law</td>
<td>✓</td>
<td>Informal negotiation required 30 days before filing for arbitration; owner may extend process up to 90 days</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Club Penguin (US)</td>
<td>State or federal courts of Manhattan, NY; NY &amp; US law</td>
<td>✓</td>
<td>Informal negotiation required 30 days before filing for arbitration; owner may extend process up to 90 days</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dark Age of Camelot (US)</td>
<td>State or federal courts of Manhattan, NY; NY &amp; US law</td>
<td>✓</td>
<td>Informal negotiation required 30 days before filing for arbitration; owner may extend process up to 90 days</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Immersive Environment (Game Developer's National Base)</td>
<td>State or federal courts of Manhattan, NY; NY &amp; US law</td>
<td>✓</td>
<td>Informal negotiation required 30 days before filing for arbitration; owner may extend process up to 90 days</td>
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<tr>
<td>Dragon Oath (China)</td>
<td>State or federal courts of Manhattan, NY; NY &amp; US law</td>
<td>✓</td>
<td>Informal negotiation required 30 days before filing for arbitration; owner may extend process up to 90 days</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dream of Mirror</td>
<td>State or federal courts of Manhattan, NY; NY &amp; US law</td>
<td>✓</td>
<td>Informal negotiation required 30 days before filing for arbitration; owner may extend process up to 90 days</td>
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<td></td>
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<tr>
<td>Online (US)</td>
<td></td>
<td></td>
<td>$10,000: nonappearance-based; by telephone, online or writing</td>
<td>county, CA; CA law; $1,000 penalty for improper filings</td>
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<tr>
<td>Entropia Universe (Sweden)</td>
<td></td>
<td></td>
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<td>Courts and laws of Sweden</td>
<td></td>
</tr>
<tr>
<td>Eve Online (Iceland)</td>
<td>√</td>
<td></td>
<td></td>
<td>Laws of Iceland</td>
<td></td>
</tr>
<tr>
<td>Everquest III (US)</td>
<td>√</td>
<td>Informal negotiation required 30 days before filing litigations</td>
<td>State or federal courts of San Diego county, CA; CA law</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fantasy Westward Journey (China)</td>
<td>√ Players must observe laws of China</td>
<td></td>
<td>Players must observe laws of China</td>
<td></td>
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</tr>
<tr>
<td>Final Fantasy XI (Japan)</td>
<td>√</td>
<td>Informal negotiation required 30 days before filing litigations</td>
<td>State or federal courts of LA county, CA; CA law</td>
<td></td>
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<tr>
<td>Free Realms (US)</td>
<td>√</td>
<td>Informal negotiation required 30 days before filing litigations</td>
<td>State or federal courts of San Diego county, CA; CA law</td>
<td></td>
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<tr>
<td>FusionFall (US)</td>
<td>√</td>
<td></td>
<td>State or federal courts of Atlanta, GA; GA law</td>
<td></td>
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<tr>
<td>Gaia Online (US)</td>
<td>√</td>
<td></td>
<td>State or federal courts in Santa Clara county, CA; CA law</td>
<td></td>
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<tr>
<td>Guild Wars (South Korea)</td>
<td>√</td>
<td></td>
<td>State or federal courts of Travis county, TX; TX law</td>
<td></td>
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<tr>
<td>HiPiHi (China)</td>
<td>√ No terms of use link</td>
<td></td>
<td>No terms of use link and no choice-of-law clause</td>
<td></td>
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<tr>
<td>IMVU (US)</td>
<td>√</td>
<td></td>
<td>State or federal courts in CA; CA law</td>
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<tr>
<td>InWorldz</td>
<td>√</td>
<td></td>
<td>First US law,</td>
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<tr>
<td>(US)</td>
<td>Kaneva (US)</td>
<td>State or federal courts of Fulton county, GA; GA law</td>
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<tr>
<td>Immersive Environment (Game Developer's National Base)</td>
<td>No Owner-Player DR Clause</td>
<td>Unilateral Termination Clause</td>
<td>Negotiation</td>
<td>Binding Arbitration</td>
<td>Litigation and/or Choice of Law</td>
</tr>
<tr>
<td>Legend of Mir III (South Korea)</td>
<td>√</td>
<td></td>
<td></td>
<td></td>
<td>State or federal courts of King county, WA; WA law</td>
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<tr>
<td>Lineage II (South Korea)</td>
<td>√</td>
<td></td>
<td></td>
<td></td>
<td>State or federal courts of Travis county, TX; TX law</td>
</tr>
<tr>
<td>Moove (Germany)</td>
<td>√</td>
<td>√</td>
<td></td>
<td>No choice of law clause</td>
<td></td>
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<tr>
<td>Mu Online (US)</td>
<td>√</td>
<td></td>
<td></td>
<td>Courts of Santa Clara county, CA; CA law</td>
<td></td>
</tr>
<tr>
<td>Nickelodeon Virtual Worlds/3-D Games (US)</td>
<td>√</td>
<td></td>
<td></td>
<td>Federal and state courts, state and county of New York.</td>
<td></td>
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<tr>
<td>Onverse (US)</td>
<td>√</td>
<td></td>
<td></td>
<td></td>
<td>State or federal court in Maricopa County, AZ; AZ law</td>
</tr>
<tr>
<td>Perfect World (China)</td>
<td>√ Only cites DMCA/IP notices by e-mail to customer service</td>
<td></td>
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<tr>
<td>Ragnarok Online 2 (South Korea)</td>
<td>√</td>
<td></td>
<td></td>
<td>Courts and laws of US</td>
<td></td>
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<tr>
<td>Runescape (UK)</td>
<td>√</td>
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<td>Courts of UK; English law</td>
<td></td>
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<tr>
<td>Second Life</td>
<td>√ Voluntary;</td>
<td></td>
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<td>Courts in city</td>
<td></td>
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<tr>
<td>Game</td>
<td>Owner-Player DR Clause</td>
<td>Unilateral Termination Clause</td>
<td>Negotiation</td>
<td>Binding Arbitration</td>
<td>Litigation and/or Choice of Law</td>
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<tr>
<td>Sims 3 (US)</td>
<td>√</td>
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<td>Informal negotiation required 30 days before filing for arbitration</td>
<td>Mandatory; AAA consumer rules; by telephone, online or writing; excludes residents of Quebec, Russia, Switzerland and EU from arbitration</td>
<td>Laws of Germany</td>
</tr>
<tr>
<td>Smeet (Germany)</td>
<td>√</td>
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<tr>
<td>Star Wars (Clone Wars Adventures &amp; Old Republic) (US)</td>
<td>√</td>
<td></td>
<td>Informal negotiation required 30 days before filing litigation</td>
<td></td>
<td>State or federal courts of San Diego county, CA; CA law</td>
</tr>
<tr>
<td>Tian Long Ba Bu (China)</td>
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<td>English courts; laws of England and Wales</td>
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<tr>
<td>Toontown (US)</td>
<td>√</td>
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<td></td>
<td></td>
<td>State or federal courts of Manhattan, NY; NY &amp; US law</td>
</tr>
<tr>
<td>Immersive Environment (Game Developer's National Base)</td>
<td>No Owner-Player DR Clause</td>
<td>Unilateral Termination Clause</td>
<td>Negotiation</td>
<td>Binding Arbitration</td>
<td>Litigation and/or Choice of Law</td>
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<tr>
<td>Utherverse (UK)</td>
<td>√</td>
<td></td>
<td>Inconsistent clause – exclusive use of online dispute resolution forum and exclusively</td>
<td></td>
<td>Courts and tribunals located in Vancouver, British Columbia, Canada; laws of British Co-</td>
</tr>
<tr>
<td>Environment</td>
<td>EU members - courts and law of England; US members - federal or state court of Northern District of CA; CA law</td>
<td>Global courts of San Francisco county, CA; CA law</td>
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<td>Ultima Online (US)</td>
<td>√</td>
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<td>vSide</td>
<td>√</td>
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<td>World of Warcraft (US)</td>
<td>√</td>
<td>Informal negotiation required 30 days before filing for arbitration</td>
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<tr>
<td>Whyville (US)</td>
<td>√</td>
<td>State or federal courts of LA county, CA; CA law</td>
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