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VIRTUAL WORLDS AS COMPARATIVE LAW

JAMES GRIMMELMANN*

I. INTRODUCTION

One way of talking about virtual worlds¹ and law is to talk about the laws that might be applied to such worlds. This was the approach taken by many presenters at the State of Play conference.² In various combinations, they discussed possible sources of legal control over virtual world game spaces and reasons to support or oppose such legal control.

I intend to do something different. For purposes of this Article, I would like to take seriously the claims of virtual world games to be genuinely new societies, at least for awhile. 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,³ perhaps we can also learn from studying the legal systems of virtual law worlds.

In some cases, these legal systems track our own surprisingly well. In other cases, the contrasts are striking. Both the similarities

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1. Following Dan Hunter & F. Gregory Lastowka, *The Laws of the Virtual Worlds*, 92 CAL. L. REV. 1 (2004). I will use the term “virtual worlds” to describe these spaces. Like them, I am mostly concerned with large multiplayer online games, and will sometimes refer simply to “games” when the meaning is clear from context.

2. See, e.g., Edward Castronova, *The Right to Play*, 49 N.Y.L. SCH. L. REV. 185 (2004); Julian Dibbell, *Owned! Intellectual Property in the Age of Dupers, Gold Farmers, eBayers, and Other Enemies of the Virtual State*, at <http://www.nyls.edu/docs/dibbell.pdf> (last visited June 23, 2004); Cory Ondrejka, *Escaping the Gilded Cage: User-Created Content and Building the Metaverse*, 49 N.Y. L. SCH. L. REV. 81 (2004); Susan Crawford, *Who's in Charge of Who I Am?: Identity and Law Online*, 49 N.Y. L. SCH. L. REV. 211 (2004). Jack Balkin, Rebecca Tushnet, and Yochai Benkler also gave presentations discussing how real-world law might or might not adapt to handle games.

3. See RUDOLF B. SCHLESINGER ET AL., *COMPARATIVE LAW 2* (David L. Shapiro et al. eds., 1998) (“By the use of the method of comparison, it becomes possible to make observations and to gain insights that would be denied to one whose study is limited to the law of a single country.”).

and differences between real-life law and virtual law are instructive. They can teach us something about what is really going on in virtual worlds, and they can teach us something about what is really going on in our own world.

This Article is therefore a thought experiment; an attempt to lay the necessary conceptual foundations for talking coherently about “in-game” law. I will identify four recurring problems in virtual worlds, and discuss what we might gain by thinking about these problems as legal ones.

Part II of this Article will discuss virtual property, which has been one of the most spectacularly successful features of massively multiplayer games. Studying the mechanics and meaning of “ownership” within games has the potential to tell us a great deal about the mechanics and meaning of law in virtual worlds more generally.

Part III will discuss the forms of investment and exchange governed by contract law in the real world. Virtual economies seem to be humming along without extensive bodies of contract law. Explaining this absence provides us a useful framework for thinking about wealth and society and how these concepts do or do not change as they go online.

Part IV explores the social dynamics of groups of players, specifically, how they prevent undesired conduct by others and how they band together for common purposes. Here, the challenge is to find good analogies to similar problems of real-life law.

Finally, Part V turns to one of the most discussed problems in game design: How do we reassure players that designers’ overwhelming powers over game spaces will not be used maliciously? If we look at the corresponding problem from real-life law — how to restrain seemingly unrestrainable sovereign powers — we see that law has a good deal to say about the practical techniques by which a lasting and trusting relationship between seeming unequals can be established.

II. VIRTUAL PROPERTY

If one had to choose a single canonical feature of multiplayer online games, there would be no contest. Property is invariably among the first features implemented in any game; only the abilities to communicate with other players and to move around the

game world are as widespread.⁴ Even though it would be technically just as easy to make all virtual items pure public goods, no game has ever gone this route.

Further, virtual property has been an enormous success in two related ways. First, these propertized spaces have been commercial successes as games because people enjoy fiddling with virtual property enough to play games that feature it.⁵ Second, this virtual property has been a success as property. A Chinese court has considered such property real enough to order its restitution⁶ and players in general consider it reliable enough to sustain a large and lucrative trade in virtual items.⁷

Dan Hunter and Greg Lastowka make a strong case that virtual property replicates many of the incidents of real world property and satisfies the normative demands made by the major theories justifying property.⁸ Their argument, in essence, is that the fact that this new virtual property is created and protected by computer code does not disqualify it from being property. They are principally concerned with the demands made on property by real-life law.

We might also ask, however, how this new form of property functions within the “legal” context of the virtual worlds that define it. A common perspective is that property law mediates between the natural world of things and the made world of human social practice. Typical of this perspective is the law and economics ac-

4. See, e.g., *EverQuest Manual*, at <http://eqlive.station.sony.com/manual/> (last visited May 30, 2004); see also *EverQuest Manual Chapter 3: Quick Start*, at <http://eqlive.station.sony.com/manual/manual.jsp?chapter=3> (last visited May 30, 2004) (explaining, in order, how to move, communicate, attack, use magic, and pick up items); *Ultima Online Playguide*, at <http://guide.uo.com/index.shtml> (last visited May 30, 2004); see *Starting Up*, at http://guide.uo.com/start3d_0.html (last visited May 30, 2004) (explaining installation, moving, communicating, and picking up items); *Dark Age of Camelot Manual*, at <http://support.darkageofcamelot.com/> (last visited May 30, 2004).

5. See, e.g., *The Themis Report on Online Gaming 2004*, at http://www.themis-group.com/view_news.phtml?id=24 (Jan. 6, 2004) (predicting more than \$1.1 billion in revenue from virtual worlds in 2004); Bruce Sterling Woodcock, *An Analysis of MMOG Subscription Growth*, at <http://pw1.netcom.com/~sirbruce/Subscriptions.html> (last visited May 30, 2004).

6. *Online Gamer in China Wins Virtual Theft Suit*, REUTERS, Dec. 20, 2003, available at <http://www.cnn.com/2003/TECH/fun.games/12/19/china.gamer.reut/>.

7. See Edward Castronova, *On Virtual Economies*, GAME STUDIES vol. 3, no. 2 (Dec. 2003), available at <http://www.gamestudies.org/0302/castronova/>.

8. Hunter & Lastowka, *supra* note 1, at 56-66.

count, which generally pushes for efficient rules. Such rules allow these two worlds to fit together with little disruption.⁹

Virtual world designers make some, but often quite limited, attempts at optimizing their “laws” for efficiency. The theory of property law helps explain these attempts and their limits. In the process, it provides information both about virtual worlds and property law.

A. *Property and Computer Code*

The basic theoretical problem for this caricature of law and economics in virtual worlds is that there is no meaningful distinction between the natural world of things and rules of law. Both are equally and identically enforced by software. What the software does not allow is impossible.¹⁰ In this sense, there is seemingly no mediation problem and the laws of the virtual world can be rewritten until they are optimally efficient. Put another way, there is no room for mediation because any “legal” mediation embodied in the software immediately becomes part of the “natural” world.

As applied to virtual property, this equivalency means that code-based property rights can be, and often are, absolute. If I “own” an enchanted sword, I am guaranteed to be the only player who can use that sword. No other player can use my virtual personality, let alone take it from me.¹¹ The game’s interface typically

9. See, e.g., RICHARD A. POSNER, *THE ECONOMIC ANALYSIS OF LAW* 36 (Richard A. Epstein et al. eds., 1998) (“The proper incentives are created by parceling out mutually exclusive rights to the use of particular resources among the members of society . . . [I]ndividuals will endeavor by cultivation or other improvements to maximize the value of land. Land is just an example. The principle applies to all valuable resources.”).

10. See Lawrence Lessig, *The Law of the Horse: What Cyberlaw Might Teach*, 113 HARV. L. REV. 501, 531 (1999) (“Its [software’s] obligations instead flow automatically from the structures imposed in the code.”). See generally LAWRENCE LESSIG, *CODE AND OTHER LAWS OF CYBERSPACE* (2000) [hereinafter *CODE AND OTHER LAWS*].

11. This is not universally true among games. Ultima Online has a “steal” feature that lets thieves take random items from victims. However, like all of Ultima Online’s anti-social features, this feature does not work in certain safe areas (including cities), requires physical proximity, is disabled entirely on some servers, and contributes to an evil reputation. See *noctalis.com: Ultima Online: Stealing*, at <http://noctalis.com/dis/uo/o-steal.shtml> (last visited May 30, 2004); *UO Stratics Reputation FAQ*, at <http://uo.stratics.com/content/reputation/main.shtml> (last visited May 30, 2004). Sections within the FAQ can be accessed through the links under “reputation” on the right sidebar. In particular, note the “thievery” section at <http://uo.stratics.com/content/reputation/thievery.shtml>. This feature is tightly confined and very precisely defined.

won't even have a command allowing another player to attempt to use the sword; such a concept is inexpressible within the game's interface.

We might, however, more accurately describe the rights of players in enchanted swords as "possessory," rather than as "property," because they attach to the holder of an object for as long as the item is carried. As soon as it is set down on the ground, it becomes unowned and whoever picks it up next becomes the new owner.¹² Dropping constitutes abandonment.

Of course, this striking simplicity brings us to another thread in the economic analysis of property law: that much of the value of property rights, even highly secure ones, comes from their granularity.¹³ Unless they match the uses people wish to make of things, many productive transactions will be foregone as too risky or impossible to express. There is a natural pressure on designers to provide more detailed code-based property rules than the simple "possession-is-all rule."

Getting these details right, however, is a startlingly complex affair. Take the example of virtual homeownership, a feature supported in many games.¹⁴ The most basic rule for virtual real estate is to allow all players access to all areas at all times, a rule that renders ownership impossible and meaningless.¹⁵ The next most basic rule allows only the owner of a virtual home to enter.¹⁶ However, this rule is unhelpful to the owner who wants to have guests over for a virtual party without giving them the keys to the door or the deed to the house itself. The virtual fee simple is too monolithic to be useful.

12. See, e.g., *Ultima Online Playguide*, at http://guide.uo.com/start3d_9.html (last visited Oct. 14, 2004) ("A dropped item will stay where it is until it deteriorates naturally or someone picks it up").

13. See, e.g., Thomas W. Merrill & Henry E. Smith, *Optimal Standardization in the Law of Property: The Numerus Clausus Principle*, 110 *YALE L.J.* 1, 35-39 (2000) (discussing both the importance of "frustration costs" resulting from insufficient granularity and also countervailing factors).

14. See, e.g., *Dark Age of Camelot Manual*, at <http://www.camelotherald.com/housing/manual/index.php> (last visited Oct. 14, 2004).

15. EverQuest, for example, does not support private ownership of real estate.

16. See, e.g., *Dark Age of Camelot Manual*, at <http://www.camelotherald.com/housing/manual/chapter4.php> (last visited Oct. 14, 2004) (defaulting to no access to home by anyone other than owner).

Thus, every major game that allows ownership of real estate also gives owners the ability to choose who is allowed entry.¹⁷ In property law terms, such games take the virtual fee simple and carve out a new estate — let us call it the “right of visit.” The right of visit is perpetual, non-transferable, and subject to revocation by the owner of the underlying fee simple. Thanks to this right, owners can use homes for parties. The ability to pass out rights of visit makes the underlying virtual fee simple more valuable.

While the right of visit solves one problem of coarse property rights, it exposes another. It is not *a priori obvious* how personal property should interact with the right of visit. At a virtual party, you’d like guests to be able to drink the refreshments but not walk off with the silverware. When designers implement a right of visit, they consider whether there needs to be some way to drop an item, even if only in one’s home, while retaining enough ownership to stop anyone else from picking it up.¹⁸

This change, however, raises another issue. If a guest with a right of visit enters a house and drops an item, does it remain theirs, become the homeowner’s, or become a *res nullius*? What if the owner revokes the right of visit while a guest is in the home and carrying items picked up inside? What if the owner sells the house with items and guests inside? Some answers to these questions seem better than others. For example, no game of which I am aware follows the rule that items dropped inside a dwelling become the property of the owner. My point is that these questions inevitably come up, no matter how complex the system of code-based property rights may be. And they can become quite complex. For example, *Dark Age of Camelot* defines ten separate estates: Visitor, Guest, Resident, Tenant, Acquaintance, Associate, Friend, Ally, and Partner, in addition to owner. Further, each of these roles can be customized with respect to a number of permissions, and home-

17. See, e.g., *UO Stratics Homeowner’s Guide: Managing Your Household*, at http://uo.stratics.com/homes/betterhomes/hg_manage.shtml#security (last visited May 30, 2004) (discussing management of “access lists” that allow or prohibit entry to private homes in *Ultima Online*).

18. See, e.g., *Dark Age of Camelot Manual*, at <http://www.camelotherald.com/housing/manual/chapter5.php> (last visited Oct. 14, 2004) (using “vaults” to protect particular items from guests allowed entry but not access to the contents of vaults inside).

owners can use various kinds of special objects with their own special rules.¹⁹

This form of radiating complexity is of course by no means unique to software. As intricate as these rules may be, they pale in comparison to the Internal Revenue Code.²⁰ The process of writing down exceptions and exceptions to exceptions can produce systems of breathtaking intricacy. However, there is a crucial difference between a highly-detailed system of legal rules and a highly-detailed system of software rules; one rooted in the fundamental distinction between law and software.²¹ A law depends on humans for its enforcement, which means that human cognitive biases will inevitably creep into the enforcement process as a law is applied to particular cases. Thus, as the complexity of a legal doctrine increases, so does its indeterminacy. As the number of provisions touching a given point of law increases, so to do the opportunities to pick and choose, to shade one statutory interpretation or another. The cumulative effect of many small ambiguities can be enormous. Complexity inherently begets ambiguity and creates space for creative lawyering and judicial discretion.

But in the world of software, increasing complexity does not bring with it increased discretion. This is so because software operates by itself: the only human in a position to determine its decisions is its programmer. Even as code-based property rights become increasingly complex, with more exceptions and special cases, they never become any less hard-nosed in their application. The tests are always binary and objective. One may need to sort very carefully through the list of rules to determine which applies, but, in principle, the outcome is always clear and free from doubt.²² Software, by its nature, does not have discretion in the same sense that a judge does. We can commit decisions to a computer, but we cannot commit decisions to the reasoned discretion of the computer. In telling a computer which factors it should take into ac-

19. See *Dark Age of Camelot Manual*, *supra* note 16.

20. See Michael J. Graetz, *100 Million Unnecessary Returns: A Fresh Start for the U.S. Tax System*, 112 YALE L.J. 261, 272-74 (2002).

21. See generally CODE AND OTHER LAWS, *supra* note 10.

22. See DONALD E. KNUTH, *THE ART OF COMPUTER PROGRAMMING* 1-6 (3rd ed. 1997).

count and how it should weight them, we pre-decide every possible case.

Property law in virtual worlds is a helpful place to ground this rather abstract jurisprudential point because property law in the real world has been a fruitful place for grounding it. The tension between rules and standards in property law has a distinguished academic history.²³ The absence of one traditional hallmark of standards, post hoc discretion, is an invitation to rethink both the rule-standard dichotomy and the nature of software-enforced “law” itself in virtual worlds.

B. The Taking of Wild Monsters

On the other side of this mediation, specifically the relationship between positive law and actual social practice, virtual worlds again have the potential to serve as data points or as natural experiments. There is excellent evidence from a significant number of games on how players (and player communities) shape their norms around the software rules that are given to them, and on how these norms then feed back into the decisions made by game designers. We can incorporate evidence on actual practice from games into discussions on law in the same way that we incorporate evidence on actual practice among neighbors and competitors into such discussions.

The capture of wild animals, even if not always of the greatest practical importance, has a certain consistent attraction for scholars and casebook editors. Foxes²⁴ and whales²⁵ have become focal points for theories about property, such as whether labor or possession is more important, which rule will maximize incentives for productive investment, or which rule will avoid costly negotiations.²⁶ Where property rights are being created, rather than merely trans-

23. *E.g.*, Carol M. Rose, *Crystals and Mud in Property Law*, 40 STAN. L. REV. 577 (1988).

24. *E.g.*, *Pierson v. Post*, 3 Cai. R. 175 (N.Y. Sup. Ct. 1805).

25. *E.g.*, *Ghen v. Rich*, 8 F. 159 (D. Mass. 1881).

26. *E.g.*, Richard Epstein, *Possession as the Root of Title*, 13 GA. L. REV. 1221 (1979); Robert C. Ellickson, *A Hypothesis of Wealth-Maximizing Norms: Evidence from the Whaling Industry*, 5 J.L. ECON. & ORG. 83 (1989); Carol M. Rose, *Possession as the Origin of Property*, 52 U. CHI. L. REV. 72 (1985).

ferred, the particular content of those rights and the rules by which they are initially assigned are especially important.

Cases that are curiosities in the real world, however, are of central importance in many online games. In the large crop of quasi-medieval games, with their strongly fantastic overtones, the capture of wild animals is nothing less than the principal source of wealth.²⁷ The single most profitable “industry” is hunting monsters and looting their corpses. Unsurprisingly, the property rules governing acquisition by capture are highly worked out, and yet essentially every game that supplies code-based property to the killers of monsters sees these code-based rules supplanted by understandings among players.

For example, EverQuest automatically awards the experience produced by killing a monster to that team of players which has done the most damage to the monster.²⁸ Therefore, at a code level, EverQuest propertizes the experience to the people who have done the majority of the work of the kill and turns the treasure into unowned property which can be claimed by any finder. Among the EverQuest player community, however, this rule is not considered normatively binding. Instead, a group which is actively engaged in fighting a monster, even if it has done little damage, is considered to have a prospecting property right because attacking the monster (unless the first group abandons the effort) is considered “kill stealing” and is taboo.²⁹ Sony considers kill stealers to be engaged in

27. See Edward Castronova, *Virtual Worlds: A First-Hand Account of Market and Society on the Cyberian Frontier*, available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=294828 (Dec. 2001); *EverQuest Manual*, *supra* note 4, at § 3.8 (“By far the best way to gain that money is by defeating enemies. In the areas just outside of the city that you start in you will be able to find small creatures, often in plague proportions. You can aid your fellow citizens and earn cash in the process by defeating these pests and looting their corpses.”).

28. This rule is not officially stated by Sony, which keeps the details of its experience-granting algorithms secret. It has, however, been reverse-engineered by players. See, e.g., Jon “Jeh” MacLellan, *Please? Maybe a Thank You?*, at <http://www.gamespy.com/editorials/april01/everquest/> (last visited June 21, 2004).

29. See, e.g., *id* (discussing “kill stealing”); *Psalm of the Dragon Policies*, at <http://www.psalmoftthedragon.org/?view=policies> (last visited June 4, 2004) (“No Ninja Looting, Kill Stealing, and Bottomfeeding”); *Fellowship of Justice Guild Rules and Regulations*, at <http://www.fellowshipofjustice.com/rules.php> (last visited June 4, 2004) (“No kill stealing will be tolerated by this guild.”). A similar problem arises with respect to the tangible items and money a monster drops; “ninja looting” is a term of art equivalent to “kill stealing” for such items.

“griefing,” a term usually understood to mean deliberately annoying other players, and will suspend their accounts if it receives too many complaints.³⁰

Now, compare this rule to Asheron’s Call’s rules on kills. There, experience is divided up in direct proportion to the amount of damage a player does, so that if three players each independently do equal damage, each receives a third of the experience.³¹ These rules might have been written deliberately to fix EverQuest’s normative problem. By allowing partial though not majority wounding to keep experience in proportion to the damage they deal, these rules create no danger of later hunters taking away the work that earlier hunters have done.³² Yet despite this rule, Asheron’s Call still has a kill stealing problem, in the sense that players feel the need to define a code of conduct that forbids kill stealing and to complain to the gamemaker when other players violate that code.³³ Players get upset when other, more powerful, groups come in, like bullies at the beach kicking sand in the faces of the weaklings and stealing their beautiful monsters. It seems that the kind of hot pursuit necessary to establish a normative right to the spoils is quite weak. One need not have imminent success, or even substantial progress, or even, perhaps, a high likelihood of ultimate success.

Every game has a property rule on the spoils of killing monsters embodied in its software. Players, however, will deviate from this rule based on their own social understandings. The idea that customary interactions will frequently depart from the law on point is not a new one. Robert Ellickson’s study of norms among neighboring ranchers makes this point quite forcefully.³⁴ His observation that people will often ignore an inappropriate or inefficient legal rule has a special force in games, where the “law” is enforced

30. *EverQuest Rules of Conduct 1.1.1*, at http://eqlive.station.sony.com/support/customer_service/cs_rules_of_conduct.jsp (last visited June 4, 2004).

31. *Asheron’s Call Stratics — Frequently Asked Questions*, at <http://ac.stratics.com/php-bin/faq/faq.php> (last visited June 4, 2004).

32. See Ellickson, *supra* note 26, at 83.

33. See, e.g., *Cairdeas AC2 Code of Conduct*, at <http://www.cairdeas.net/ac2/ac2coc.aspx> (last updated Feb. 4, 2003); *Mu’s Asheron’s Call Rants*, at <http://mu.ranter.net/asheron/acrants7.html> (last visited June 4, 2004); *Charter of the House of Colier*, at <http://www.houseofcolier.org/index.php?content=charter> (last visited June 4, 2004).

34. ROBERT C. ELICKSON, *ORDER WITHOUT LAW: HOW NEIGHBORS SETTLE DISPUTES* (1991).

through software. A judge might at least hope to sort through conflicting versions of a story, while software is necessarily blind to the social meaning of events.

Consider again the case of the monster under attack by group A when group B comes along and starts whaling on it. Presumably, this shift is an affront to group A's hard work and wrongful as against group A. That is, unless group A made a commitment to allow group B to go ahead and supplant it, or to split the loot. But what kind of commitment? Perhaps this deal was negotiated using the game's chat mechanism. This possibility alone removes this case from the possibility of software adjudication. Computerized language processing is far too crude to parse text well enough to understand that "We'll go 50-50 on the plat with you if you help us out, but we'll keep anything else" is such a commitment.

Our knowledge of the meaning of these comments is deeply embedded in our social competence. We know the content of this transaction because of our long experience being alive and engaging in similar ones. Trying to reduce such knowledge to computer-intelligible form has been one of the many great failures of computer science.³⁵ Every law student knows why legal rules are so difficult to automate — a professor using the Socratic Method often plays the part of the computer, acting dumb and taking the student's every word at literal face value.

C. Conclusion

The problem here is that, almost by definition, multiplayer games are endowed by their players with a rich layer of social meaning. Players make friendships, tell jokes, and fill out their virtual existences with their own ideas and interpretations.³⁶ The game's code (and even often the game's designers) is ignorant of it all. If every iota of this meaning were reduced to code, there would be no

35. See, e.g., Stuart M. Shieber, *Lessons from a Restricted Turing Test*, in COMM. ASS'N FOR COMPUTING MACHINERY, vol. 37, no. 6, 70-78 (1994) ("The AI problem, like the problem of human-powered flight in the Renaissance, is only addressed directly and dismissed as imminently solvable by those who underestimate its magnitude.").

36. See JULIAN DIBBELL, *MY TINY LIFE: CRIME AND PASSION IN A VIRTUAL WORLD* (1999). See generally HOWARD RHEINGOLD, *THE VIRTUAL COMMUNITY: HOMESTEADING ON THE ELECTRONIC FRONTIER* (MIT Press rev. ed. 2000) (1993) (commenting on the human ability to create rich social meaning in online spaces).

game. The gaming conception of “possession-as-property” depends fundamentally on players having a meaningful social understanding of property. Probing those social understandings is a large and open topic for further study.

III. WEALTH, STATUS, AND CONTRACT

Reliable contract law — along with reliable property law — is the intuitive basis of a functional market economy. If property gives individuals economic security, then contract allows them to put their property to use through productive exchange.³⁷ But, while online games have quite strong protections for property, they have nothing that we would recognize as a comparable body of contracts law. Most games have no way to draft any contract more complex than an immediate sale of goods for cash.³⁸

This anomaly is even more striking in that most virtual worlds possess a fully-functioning market economy, complete with merchants, long distance trade, arbitrage, and recognizable macroeconomic trends.³⁹ We need an account of how these extensive economies flourish without the promissory protections that we think of as being central to contract law.⁴⁰

A. *Contract, Relation, and Status*

This discussion naturally begins where the discussion of property left off. Everything noted above about the impossibility of enforcing through code all of players’ social understandings of property rights applies with even more force to contracts. The very nature of contracting involves extensive attention to the particular

37. Historically, property and contractual rights were never far out of step with each other. See S.F.C. MILSOM, *HISTORICAL FOUNDATIONS OF THE COMMON LAW* (Butterworth-Heinemann 1981) (1969).

38. Ultima Online’s concept of “vendor,” through which players can set prices at which they will automatically sell items they own, is about the state of the art for in-game contracting. In legal terms, Ultima Online has reasonable support for option contracts for the sale of goods. See *Ultima Online Playguide*, at http://guide.uo.com/trade_4.html (last visited Oct. 14, 2004).

39. Castronova, *supra* note 27.

40. See, e.g., CHARLES FRIED, *CONTRACT AS PROMISE* (1982) (on the connection between promise and contract). *But cf.* Alan Schwartz & Robert E. Scott, *Contract Theory and the Limits of Contract Law*, 113 *YALE L.J.* 541 (2003) (excluding from the field of “contract” all agreements between individuals).

social understanding of the parties⁴¹ — precisely the sort of task to which software is ill-suited.

Even representing contracts in a computer intelligible form is a near intractable problem. Enormous effort and expense have been poured into automating contracts between businesses in the real world, but even there, code is still at least five centuries behind history.⁴² The most ambitious current proposals involve price negotiations for suppliers of goods and licensing regimes for consumer media. A quick tour through any contracts casebook reveals how slight these ambitions are when compared with the wide variety of agreements represented therein.⁴³

Expressing contracts is just one problem — enforcing them is even more complex. After all, in deciding a contractual dispute, the decisionmaker is necessarily dealing with rules written by the parties themselves and specific to the case at hand. Determining whether conduct constitutes compliance or breach requires understanding of the communicatory, contextual meanings of that conduct. Such basic contractual issues as waiver,⁴⁴ curing defects in nonconforming goods,⁴⁵ and assurance⁴⁶ will not be capable of automatic enforcement until we have true artificial intelligence.

But this is hardly the end of the matter. Property norms in games are enforced by players and designers as well as through code. Kill-stealers are attacked, shunned, and even expelled from games. It seems at least plausible that oath-breakers could be simi-

41. For example, the doctrine of misunderstanding specifically inquires into whether the parties' subjective understandings of the contract are in accord, and will void contracts if those understandings differ materially. RESTATEMENT (SECOND) OF CONTRACTS § 20 (1981).

42. See, e.g., Simon Peyton Jones et al., *Composing Contracts: An Adventure in Financial Engineering*, 5 PROC. ACM SIGPLAN CONF. ON FUNCTIONAL PROGRAMMING 280 (2000) (formalizing basic option contracts); Deirdre Mulligan et al., *Supporting Limits on Copy-right Exclusivity in a Rights Expression Language Standard*, at http://www.law.berkeley.edu/cenpro/samuels/papers/other/OASIS_Submission_090602.pdf (Aug. 13, 2002) (noting the difficulty of embedding currently-common limitations on licensed rights in computer-expressible form).

43. E.g., JOHN P. DAWSON ET AL., CONTRACTS: CASES AND COMMENT (7th ed. 1998); FRIEDRICH KESSLER ET AL., CONTRACTS: CASES AND MATERIALS (3rd ed. 1986).

44. RESTATEMENT (SECOND) OF CONTRACTS § 84 (1981).

45. UNIFORM COMMERCIAL CODE § 2-508 (1998) [hereinafter U.C.C.].

46. RESTATEMENT (SECOND) OF CONTRACTS § 251 (1981).

larly disciplined.⁴⁷ In fact, it is not so much that oath-breakers in games roam freely⁴⁸ as that very little ever reaches the stage of oaths. There is something about virtual worlds that does not mix well with contracting.

We might plausibly ask how much practical difference rich contractual protection would make. The single most important commercial transaction — the present sale of goods — can be handled without formal contracts.⁴⁹ Even in the complete absence of trust, two characters can meet, open up a window to display their offers, and then, when each has “inspected” the other’s goods, click to confirm the trade and move on.⁵⁰ The common contingencies many contracts are drafted to avoid are simply not possibilities. For example, there is typically no danger of defective goods because items in games typically don’t have hidden attributes.⁵¹ In fact, many games, recognizing the centrality of cash sales of goods on hand, have implemented special facilities for these common transactions.⁵²

If we think about the other kinds of transactions for which we use contract law extensively in the real world, their underlying motivations are often absent in game worlds. There is comparatively little practical use to contracts for sales at some later time because

47. ELLICKSON, *supra* note 34 (discussing the distinction among self-help, community norm enforcement, and legal intervention).

48. Actually, there are some games where scammers seem to roam free, most notably The Sims Online. See *TSO Fans*, at <http://www.tsofans.com> (last visited June 25, 2004) (listing common scams to avoid). No game seems totally immune to the problem, especially where new players are concerned. See also *Stratics Central — Motor City Online — Scam Avoidance*, at <http://www.stratics.com/content/portals/mco/content/gameplay/bigben/scam.php> (on file with the New York Law School Law Review); *Ultima Online Scam Prevention*, at <http://support.uo.com/scam.html> (last visited June 6, 2004); *The EverQuest Newbie Zone*, at <http://newbiezone.freewebspace.com/newbieFAQ.html> (last visited June 6, 2004).

49. For example, most provisions in Article 2 of the U.C.C. deal with nonperformance, noncomplying goods, and ambiguous contractual terms — issues that are largely irrelevant to present sales with the possibility of perfect inspection.

50. *EverQuest Manual*, *supra* note 4, at § 8.5.

51. See U.C.C. §§ 2-312 to 2-315.

52. EverQuest allows players to put items in their possession up for auction. The item is automatically sold to the highest bidder after a set time. A variant, called the “merchant bag,” lets players set a fixed price for immediate sale. Ultima Online takes this concept one step further. Through “vendors,” players can in effect establish virtual storefronts, selling goods at prices set by the player even when her character is elsewhere in the game.

game worlds are highly predictable.⁵³ The harvests are reliable, monsters appear in set locations and on set schedules, there are no natural disasters, and no political turmoil ever threatens property or closes off the main roads.⁵⁴ There is also little practical use for the large institutional contracts used in the real world to mobilize capital and put it to productive use because games lack major investment opportunities of the sort that would require contractual borrowing.⁵⁵ There are no mines, factories, aqueducts, or other capital intensive projects capable of paying for themselves. Nor, for that matter, do we see family-relations contracts. Players frequently “marry” each other in-game,⁵⁶ but they almost never draw up pre-marital agreements.⁵⁷

This last example is suggestive. To generalize it slightly, it seems that games frequently have rules, either in code or in player norms, governing status and adjustments to status. The game allows players to pick one profession or another,⁵⁸ and players devise extensive lists of qualifications as prerequisites for joining guilds.⁵⁹ Yet games do not seem to exhibit a particularly rich contractual penumbra around these incidents of status. The dissatisfied spouse declares himself “divorced,” the dissatisfied guild expels an unruly member, and the game does not negotiate at all with the dissatis-

53. These contracts are roughly those governed by Article 2 of the U.C.C.

54. See, e.g., *The Owner's Ultima Online Cheats Guide*, at <http://www.theowner.org/> (on file with the New York Law School Law Review) (offering to sell a guide listing “complete with mapped location of every rare [item] and their spawn times!”).

55. See Schwartz & Scott, *supra* note 40 (describing these agreements as fit for “contract law”).

56. See *EQ Weddings*, at <http://www.expage.com/weddingscripts> (last updated Jan. 13, 2002) (containing scripts for weddings between different character classes in EverQuest); Nicholas Yee, *The Norrathian Scrolls: A Study of EverQuest*, at <http://www.nickyee.com/eqt/relate.html> (last visited June 21, 2004) (surveying EverQuest players about role-playing romantic relationships); Nicholas Yee, *An Ethnography of MMORPG Weddings*, at <http://www.nickyee.com/daedalus/archives/000467.php> (last visited Oct. 4, 2004).

57. I suspect that the lack of in-game births, true joint or community property, and true death (and therefore no need for estate planning) has much to do with the rarity of pre-marital agreements.

58. See, e.g., *Star Wars Galaxies Manual* § 5.5 — *Skills and Professions*, at http://starwarsgalaxies.station.sony.com/manual_detail.jsp?id=56845 (last visited Oct. 14, 2004) (including such professions as “droid engineer,” “image designer,” and “pikeman”).

59. E.g., *Science of War Application Requirements*, at <http://www.scienceofwar.net/appform/> (last visited June 6, 2004) (listing seventeen criteria for admission, together with profession-specific requirements).

fied farmer. Self-help and ongoing negotiation are more the order of the day than enforceable agreements.⁶⁰

One model, then, would be that games represent worlds that are relational rather than contractual. Certainly the extensive gift economies that flow through many games, often coexisting quite comfortably with market economies, express something of this sense.⁶¹ The norm of generosity to newbies is quite pervasive.⁶² Even in Ultima Online's early Wild West days, when new players were considered easy marks, they were often still the beneficiaries of repeated gifts from more experienced players.

Guilds, where patron-client networks are perhaps strongest,⁶³ also illustrate this through their relationship with their members. While guilds have been compared to organized crime gangs,⁶⁴ it might be more accurate to think of them as quasi-feudal. Certainly, the tendency among top EverQuest guilds towards evaluating members for periods that verge on indentured servitude in exchange for spoils and protection has something of the lord-vassal relationship.⁶⁵

Perhaps we cannot see contract law when we look at games because the contract is not the right abstraction for expressing the nature of relationships in virtual worlds. In terms of Henry Maine's famous dichotomy,⁶⁶ it is at least plausible to claim that these games are worlds of "status," not of "contract." In a formal sense, everything pertaining to a character is wrapped up in a few thousand

60. See ELLICKSON, *supra* note 34.

61. See generally MARCEL MAUSS, *THE GIFT* (1954) (providing information on gift economies). NATALIE ZEMON DAVIS, *THE GIFT IN SIXTEENTH-CENTURY FRANCE* (2000) (giving an example of the potential coexistence of gift and contractual economies).

62. See, e.g., *The Gift and Generosity of Buffs*, at <http://www.mythicrealms.com/forums/index.php?showtopic=1022> (last updated Oct. 13, 2003); Lizard, *Kill Bunnies, Sell Meat, Kill More Bunnies*, WIRED 6.05 (1998), available at http://www.wired.com/wired/archive/6.05/bunnies_pr.html.

63. See, e.g., *Everlore — A Deeper Look into EverQuest*, at <http://www.everlore.com/links/default.asp> (last visited June 6, 2004) (stating, under Arcane and Honor, "We often give gifts to each other. We believe that gifts should be passed to other members when no longer needed. We believe that gifts should never be sold without permission of the giver.").

64. Mikael Jakobsson & T.L. Taylor, *The Sopranos Meets EverQuest: Social Networking in Massively Multiplayer Online Games*, FINEART FORUM 17:8 (2003), available at http://www.fineartforum.org/Backissues/Vol_17/faf_v17_n08/reviews/jakobsson.html.

65. See MILSOM, *supra* note 37, at 88-126.

66. See HENRY MAINE, *ANCIENT LAW* (1861).

bytes of data stored on one of the game's servers. Who is Adelaida? What are her legal rights? How does the game treat her? Those thousand bytes of status supply all the answers. This status defines most of her position within player society as well. Her appearance, her level, her experience — all of these qualities are visible, objective, and inalienable. She can hide her wealth or transfer it, but it too is a number on a server somewhere. Most factors that would draw other players to her are inherent in herself, not in her relationships with others.

B. Deliberate Unrealities and Conspicuous Consumption

This discussion of the importance of status and relation raises a larger question about the reality of virtual economies. Returning to the observation that games are worlds of status and not of contract, observe that level and skills are meaningless if all levels and all skills are equal. The very possibility of greater or lesser success is part of what makes a game a game.⁶⁷

There is something subtly askew between games and reality in this respect, however. Every player in a virtual world starts out a pauper.⁶⁸ Upward mobility in terms of the objective indicia of status (wealth, level, skills) is not just possible or typical, but almost inevitable. Players demand this possibility as part of a narratively satisfying game experience. This sort of universal progress can only be provided through truly enormous economic subsidies. Start with the welfare program; no one can starve — no one.⁶⁹ Home-

67. Edward Castronova, *On Virtual Economies*, GAME STUDIES vol. 3, no. 2 (Dec. 2003), available at <http://www.gamestudies.org/0302/castronova/> (“[I]n a normal market the demanders are willing to pay money to have constraints removed, but in a games market they will pay money to have constraints imposed.”); Robert Shapiro, *Fantasy Economics: Why Economists Are Obsessed With Online Role-Playing Games*, at <http://slate.msn.com/id/2078053/> (last updated Feb. 4, 2003). Cf. ADAM SMITH, THE THEORY OF MORAL SENTIMENTS 51-60 (Liberty Fund 1984) (1759) (connecting material ambition to the desire to be looked upon favorably by others).

68. See, e.g., *EverQuest Manual*, *supra* note 4, at § 3.3 (stating that new players begin with “20 Bread cakes and 20 skins of milk” and a weapon).

69. This fact, startling in real-life terms, is generally considered so obvious in virtual worlds that it is rarely mentioned. See *Adrenaline Vault Featured Game Interview*, at <http://www.avault.com/featured/everquest/interview4.asp> (last visited June 21, 2004) (“Food and drink are important if you want your endurance to regenerate, which is important because it allows you to fight more effectively and also to flee from battle. But you don’t actually starve to death, or take damage from lack of nourishment.”) Cf.

lessness is not a problem; no one ever dies from exposure. Not only do players have few daily expenses, they often have all but guaranteed incomes, thanks to the price supports offered by non-player merchants. After Ultima Online's famous (and disastrous) experiment with limiting the supply side,⁷⁰ few games are willing to impose strict conservation laws on the scarcity of items or money.⁷¹ When a government lets the money supply increase like this, the natural result is severe inflation.⁷² The Norrathian plat loses a quarter of its value annually.⁷³ It is not only money that loses value. With enough time, everything in a game's market becomes worthless as the supply expands to meet even the most marginal demand.⁷⁴

The typical designer response is to expand the world, adding new quests, monsters, items, and other status markers.⁷⁵ These new

Greg Lastowka, *Maslow Short-Circuited*, at http://terranova.blogs.com/terra_nova/2003/10/maslow_shortcir.html (Oct. 13, 2003) ("The avatar's typist can surely starve and die, but nothing in a virtual world will feed or protect the typist.").

70. The history of that experiment is recounted, most memorably, in Elizabeth Kolbert, *Pimps and Dragons: How An Online World Survived A Social Breakdown*, THE NEW YORKER, May 28, 2001, http://www.newyorker.com/fact/content/?010528fa_FACT.

71. Some recent games have tried to break out of this model with property-based taxation and redistribution. See James Wagner Au, *Tax Revolt in Americana!*, at http://secondlife.com/notes/2003_08_11_archive.php#20030812 (last updated Aug. 12, 2003); James Grimmelmann, *On the Second Life Tax Revolt*, at <http://research.yale.edu/lawmeme/modules.php?name=news&file=article&sid=1222> (Sept. 21, 2003). There has also been a decrease in the number of game-set prices. See, e.g., Raph Koster, *Economic Models*, at http://terranova.blogs.com/terra_nova/2003/10/economic_models.html (Oct. 14, 2003) ("SWG uses a faucet/drain but with the interesting wrinkle that the only game-set prices in the entire thing are for a few drains, and a minor (and statistically insignificant, at the moment) source of income from junk dealer shopkeepers.").

72. Technically, because the supply of goods is also untethered, the in-game prices may not necessarily change. But the value of both in-game money and in-game goods will be falling against outside measures, such as the US dollar.

73. Compare Castronova, *supra* note 27, at 33-35, with Edward Castronova, *New Bout of Inflation in EverQuest*, at http://terranova.blogs.com/terra_nova/2003/12/new_bout_of_inf.html (Dec. 16, 2003).

74. See, e.g., Slithy_Tove, *Comments on # 15953*, at <http://www.metafilter.com/mefi/15953#251709> (Mar. 30, 2002) ("[T]here seemed to be a steady, mild, deflationary trend for large items."). Such "large items" are the ones requiring significant time or investment to acquire, and are therefore useful as wealth or as status markers.

75. See, e.g., *EverQuest Expansions*, at <http://www.everquestplatinum.net/expansions/> (last visited June 21, 2004) (listing, in chronological order, major expansions to EverQuest); *UO Stratics — Age of Shadows Official FAQ*, at <http://uo.stratics.com/content/aos/officialfaq.shtml> (last visited June 21, 2004) (describing Age of Shadows expansion to Ultima Online); *Shadowbane Reader Review*, at <http://rr.pc.ign.com/rr/003/>

markers will be just as subject to rapid collapses in value as the old ones, but at least initially, they are quite scarce, simply because almost no one will have gotten their hands on them. Even later, at any given point in time, they are comparatively scarcer than the old symbols. This shift makes them more valuable and insures that there remains at least something of value in the game, even if its identity is shifting. Sometimes, these new items are placed into the game through direct sale, at exorbitant prices, with the goal of sucking some of the money back out of the game.⁷⁶ Ultima Online responded to a bug that glutted its money supply overnight by introducing fabulously expensive hair dye, completely useless for anything except showing that a player had enough money to afford it.⁷⁷ Having introduced horses — to ride them, players needed to purchase expensive bridles. EverQuest introduced giant rideable lizards — to ride them, players needed to purchase equally expensive drums.⁷⁸

Game designers often refer to these expansions as “keeping the game interesting for the advanced player.”⁷⁹ That they certainly do. But once the advanced players have mastered the challenges of a particular expansion and are clamoring for another, the expansion still remains in the game for the almost-advanced players, the not-quite-almost-advanced players, the intermediate players, and so on.⁸⁰

003487.html (Nov. 27, 2003) (complaining about “minimal content” in “pathetic” expansion to Shadowbane).

76. See, e.g., Tom Chick, *MMOs: Building Whole Societies*, at <http://www.gamespy.com/amdmog/week5/index2.shtml> (last visited June 21, 2004) (quoting a Dark Age of Camelot designer as saying, “You got classes, in the Marxist sense of the word. Naturally, starting a game where you’re lower-lower class is not very inspiring. What we tried to do was offer luxury goods that were so overpriced that they drained money from the game.”).

77. See Kolbert, *supra* note 70.

78. Sylvene Firebrand, *An EverQuest Guide to Horses*, at <http://eq.stratics.com/content/gameplay/guides/horses.shtml> (last visited June 21, 2004).

79. Wes Connell, *Re: [MUD-Dev] Expansion Packs*, at <http://www.kanga.nu/archives/MUD-Dev-L/2002Q4/msg00453.php> (Dec. 9, 2002) (“The majority of expansion packs are aimed for the advanced player of that specific game . . . Usually, by the time the player “needs” an expansion pack the player has the ability to “use” the expansion pack.”).

80. See, e.g., Thott, *The Kunark Problem*, at <http://www.afterlifeguild.org/Thott/kunark.php> (last visited June 21, 2004) (complaining about the quantity of new content in Ruins of Kunark, the first expansion pack for EverQuest, in the context of a rant

It seems that elite players, pushing at the bounds of what has been done within the game, signal their elite status by acquiring rare items, which gradually become less rare and leak down to other players. By combining continual expansion of the game universe (necessary to keep high-level players supplied with new ways to signal their high status) with continual expansion in the “supply” of all achievements (necessary to keep lower-level players supplied with the ability to raise their own status) game designers effectively lock their games into a treadmill of competitive consumption.⁸¹ The use to players of dyed red hair and riding lizards is primarily as symbols of their owner’s wealth, and indirectly as symbols of the player’s skill in playing the game.

C. Conclusion

This section has told three stories about contract law in games. First, contracts do not exist in virtual worlds because the institutional prerequisites for contractual enforcement are absent. Second, contracts are a poor fit to the relational, status-based nature of interaction in these game worlds. Third, the absence of contracts in virtual worlds is a result of the significant skew between the social function of game wealth and its actual value. Any, or all, of these stories could be right, or wrong. Better research along these lines will tell us something deeper about the nature of these virtual economies.

IV. VIRTUAL CRIMINAL LAW AND ADMINISTRATION

As I will explain shortly, I am not particularly interested in the content of criminal law in virtual worlds. Thanks to some very sharp work by others at the State of Play conference, virtual criminal law is basically a solved problem. I do, however, think that talking about the problems of imposing effective punishments on wrongdoers opens up a whole slew of interesting and interrelated issues. In this Part, I will sketch two of them.

First, what does it take to make punishments effective? Here, virtuality imposes some interesting constraints, ones that might be

about the speed at which players can achieve the new, higher, maximum “level” opened to players with Kunark).

81. See THORSTEIN VEBLÉN, *THE THEORY OF THE LEISURE CLASS* (1899).

usefully reflected upon in thinking about criminal law elsewhere. Second, who defines what counts as “wrongdoing” and how do they define it? Trying to decipher how individual player opinions become the opinions of some larger local community of players leads to tough problems about the nature of guilds and other voluntary associations in virtual worlds. Both of these discussions will stray far from the theme of “criminal law,” but it provides a useful jumping-off point.

A. *Virtual Crime and Punishment*

Greg Lastowka and Dan Hunter’s article for the conference,⁸² in conjunction with some of Raph Koster’s observations,⁸³ has not only defined the field of substantive virtual criminal law, but has also largely sewn up the doctrinal outlines. All that remain are game-specific details of less theoretical interest.

Lastowka and Hunter define all virtual crime as some form of grieving,⁸⁴ a definition that makes sense. On the one hand, thanks to the wildly varied set of rules and conventions for games, it is not possible to identify specific acts as right or wrong in a way that holds true across games. Games with extensive player-versus-player features, for example, simply do not understand avataricide as murder.⁸⁵ On the other hand, virtually any act can become an offense in the right context. Raph Koster uses the example of standing in the wrong place, if that place happens to be blocking someone else’s door.⁸⁶ The right response to the question of “what is a vir-

82. Dan Hunter & F. Gregory Lastowka, *Virtual Crimes* (Draft 3) (Nov. 6, 2003), available at <http://www.nyls.edu/pdfs/lastowka.pdf>.

83. Raph Koster, *A Philosophical Statement on Playerkilling*, at <http://www.legendmud.org/raph/gaming/pkphilosophy.html> (last visited June 21, 2004); Raph Koster, *The Man Behind the Curtain*, at <http://www.legendmud.org/raph/gaming/es-say5.html> (May 11, 1998) [hereinafter *Man Behind the Curtain*].

84. See Hunter & Lastowka, *supra* note 82, at 14-21.

85. Indeed, in the limiting case — first-person shooters — killing other avatars is the entire object of the game. See also Richard A. Bartle, *A Wish List for Massive Multiplayer Games*, at <http://www.mud.co.uk/richard/og01.htm> (Sept. 2001) (“The problem, as with player death, is *unsolicited* PvP.”).

86. *Man Behind the Curtain*, *supra* note 83.

tual crime?” turns out to be “any activity that genuinely bothers most players of the game in question.”⁸⁷

Notice how this definition (appropriately, I think) renders futile the task of developing any general doctrine of virtual criminal law.⁸⁸ It asks us to look to the circumstances of a particular game and its gaming community to see what the model player of that game regards as wrongful conduct.⁸⁹ Every game has some notion of community and anti-social conduct, and therefore, some notion of punishing such conduct. However, beyond these bare outlines it is hard to say very much about which actions will be considered criminal and on what basis.⁹⁰

When we look at the mechanisms by which players might enforce their notions of fair play and good behavior, an odd paradox emerges. The set of unpleasant and wrongful acts players might wish to deter is identical to the set of unpleasant and effective sanctions available as deterrence. To prevent violence, annoyance, and non-cooperation, players can engage in violence, annoyance, or non-cooperation.

Of course, this symmetry applies to real life crimes as well, but in real life, there are incredibly severe punishments available — murder is by no means the worst weapon in the human arsenal. The state’s monopoly on violence has several functions, one of which is to ensure that most crimes can be punished with sanctions more severe than the crime itself. In a game world, on the other hand, there is simply less at stake. It is impossible to punish a criminal beyond the value she places on continuing to remain in the game because she can always respond by quitting.⁹¹

87. Hunter & Lastowka, *supra* note 82, at 15 (“Griefing is . . . all behaviors which are perpetrated within virtual society merely with the express intent [to] bring sadistic pleasure to the perpetrator through the suffering and emotional distress of others.”).

88. *Id.* Indeed, Hunter and Lastowka observe that this definition is a close (if not exact) fit with “disorderly conduct,” as defined by the Model Penal Code. The entirety of virtual criminal law, then, has been subsumed within § 250.2 of the Code.

89. *Id.* at 16 (“[W]e need some basis for concluding whether given actions are criminal by the standards of the [virtual] community.”).

90. See Castronova, *supra* note 2, at 8; Edward Castronova, *Theory of the Avatar*, available at http://papers.ssrn.com/sol3/paper.cfm?abstract_id=385103 (Feb. 2003); See generally KATIE SALEN & ERIC ZIMMERMAN, RULES OF PLAY: GAME DESIGN FUNDAMENTALS, ch. 27 (2003), available at <http://www.nyls.edu/docs/zimmerman.pdf> (describing the “immersive fallacy” and pointing out the constructed nature of virtual spaces).

91. See *infra* note 123 and accompanying text.

Further, in real life, one of the principal justifications for incarceration is its usefulness as a form of incapacitation: A criminal in prison is a danger only to others in prison. By contrast, in a game community designed for the mass consumer market, incapacitation, even through expelling players, is largely ineffectual. The annoyed player can simply quit the game and start a new account; present technology does not easily allow a game company to detect such behavior.⁹²

What is really going on, then, in virtual worlds, is a very delicate balancing act in terms of the amount of power players have to pester each other. Too little or too much and the griefers will run wild, either because they can wreak enormous amounts of havoc before they are stopped or because they cannot be stopped at all.⁹³ In deterrence terms, what a virtual world needs, in some sense, is a properly graded scheme of punishments.⁹⁴ For conduct that is only bothersome to one player, only mild sanctions need to be at that player's disposal, such as verbal ripostes and perhaps minor destructiveness. But conduct that the community decides is wrong needs to be punishable with more severe sanctions, such as banishment from the company of other players or the complete blocking of the wrongdoer's individual progress in the game. The key is that the community as a whole needs sanctions not available to individuals.

Raph Koster has hypothesized that the wider the range of responses available to players, the more effective community self-reg-

92. I am mostly concerned with player self-regulation. Game designers, of course, have freer hands. See J.R. Suler & W. Phillips, *The Bad Boys of Cyberspace: Deviant Behavior in Online Multimedia Communities and Strategies for Managing It* (Sept. 1997), at <http://www.rider.edu/~suler/psyber/badboys.html>. But too much use (or abuse) of designer power creates its own problems. See *infra* Part V.

93. This is the situation in deathmatch-style first-person shooters, in which it is essentially impossible to build up any accomplishment that cannot be taken away with one well-placed grenade. Taking away the accomplishments of others with well-placed grenades is the competitive point of such games; looking to them for examples of player self-regulation through judicious use of force is looking in the wrong place. A better example of such out-of-control contexts would be chatrooms on services without "ignore" features, where one foul-mouthed visitor can ruin everyone else's experience. It is not surprising that successful IM services and MUDs almost always have an ignore feature.

94. See, e.g., JEREMY BENTHAM, *Principles of Penal Law*, in *THE WORKS OF JEREMY BENTHAM*, pt. II, bk. 1, ch. 6 (Athlone Press 1962) ("Rule IV. The punishment should be adjusted in such manner to each particular offence, that for every part of the mischief there may be a motive to restrain the offender from giving birth to it.").

ulation will be.⁹⁵ There is some plausible evidence from various games' experiments with having different rule sets on different servers to support this hypothesis. It is an open secret that Sony devotes significantly less in customer service resources to EverQuest servers that allow players to commit acts of violence against each other, suggesting that the increased possibility of player control over others reduces the need for administrative intervention.⁹⁶ A more detailed study of this problem across the whole slate of current games is likely to be quite fruitful in pointing out the characteristics of good game design.

B. *The Puzzle of Guilds*

So far in this discussion, I have been acting as though "the community" has no difficulty acting in concert against genuine wrongdoers. But such an account is highly problematic. Many games have had trouble getting this balance right because griefers form communities too.⁹⁷ There is a critically important, if not very well understood, connection between player grouping and individual behavior. I submit that whoever understands the nature of guilds will understand the nature of community and community norm-enforcement in modern virtual worlds.

Every major game has some variant on the guild concept.⁹⁸ EverQuest has guilds and raid parties,⁹⁹ Asheron's Call has allegiance hierarchies,¹⁰⁰ Star Wars Galaxies has player associations,¹⁰¹ and many games have more complex systems. Across these dispa-

95. *Man Behind the Curtain*, *supra* note 83.

96. On this question, see Vladimir Cole, *Re: [MUD-Dev] A Question on PvP and PK*, at <http://www.kanga.nu/archives/MUD-Dev-L/2002Q3/msg00124.php> (July 15, 2002). Ultima Online, after great hand-wringing, split into a PvP server and a non-PvP server. See Kolbert, *supra* note 70. See generally *WoW Warcry — Content — PvP*, at <http://wow.warcry.com/content/pvp/> (last visited June 21, 2004) (listing various types of player-vs-player schemes).

97. See JC Soprano, *Now the City is Mine: Interview with Urizenus*, THE ALPHAVILLE HERALD, Jan. 14, 2004, at <http://www.alphavilleherald.com/archives/000089.html>; *Ultima Online Travelogues*, at <http://www.aschulze.net/ultima/stories9/release1.htm> (last updated Sept. 2002).

98. I will call all such groups "guilds" for convenience.

99. *EverQuest Manual*, *supra* note 4, at §§ 19-20.

100. *Asheron's Call — Tips — The Allegiance Primer*, at <http://classic.zone.msn.com/asheronscall/tips/ASHEtipsallegiance.asp> (last visited June 21, 2002).

101. *Star Wars Galaxies Manual*, *supra* note 58, at §§ 10, 15.5.

rate games, guilds almost always have several important features in common: the games make some explicit provision for their existence, the powers granted to them by the games are very weak, and yet they are somehow key to the social energy of a virtual world.

Scholars of virtual worlds need to develop theories about the emergent properties of guilds. We need an account of why guilds seem to be so important in server-level politics and of how players inside guilds interact. Further, we need to understand how game software becomes social, specifically, how the choices made by game designers in creating guild systems turn into the surprisingly prominent guilds we know and love. An account of this form, I believe, will tell us what is really going on as the Sims Shadow Government and the Sims Mafia struggle to define what is “right” and what is “griefing” in The Sims Online.¹⁰²

First, there is the null hypothesis that people join guilds for the same reason they join any other group. On this view, guilds don’t present any special problems; they’re just another example of general phenomena in the study of social groups. People are hard-wired to be social, so any software environments capable of supporting sociability will intrinsically also support, and indeed create, social groups.¹⁰³ Guilds will often be created by people who know each other in real life.¹⁰⁴ Accordingly, there is no important way in which they differ from other groups.

102. At the time of the State of Play conference, the consensus was that the SSG was in the ascendant and would soon dominate server politics. See Mia Wallace, *History of the Sims Shadow Government, Part 1: The Prehistory of SSG: Interview with Urizenus*, THE ALPHAVILLE HERALD, Dec. 14, 2003, at <http://www.alphavilleherald.com/archives/000059.html>. That expectation, however, seems to have been unfounded; the SSG has since collapsed, leaving a potential power vacuum. See Urizenus, *Snowwhite and — Storm Resign SSG: Is It the End?*, THE ALPHAVILLE HERALD, Jan. 12, 2004, at <http://www.alphavilleherald.com/archives/000084.html>; Urizenus, *Interview With Former SSG General, Storm*, THE ALPHAVILLE HERALD, Jan. 13, 2004, at <http://www.alphavilleherald.com/archives/000086.html>; Urizenus, *Alphaville Braces for Mafia Wars*, THE ALPHAVILLE HERALD, Jan. 14, 2004, at <http://www.alphavilleherald.com/archives/000088.html>.

103. See Clay Shirky, *Social Software and the Politics of Groups*, at http://shirky.com/writings/group_politics.html (May 9, 2003).

104. See, e.g., *Emerald Templars — An Everquest Guild*, at <http://www.emeraldtemplars.org/about.php> (last visited June 21, 2004); *Phoenix Lords — An Everquest Guild of Friends on the Mithaniel Marr Server*, at <http://phoenixlords.8k.com/code.html> (last visited June 21, 2004); *The Cult of Xen*, at <http://www.cultofxen.com/modules.php?name=news&file=article&sid=43&mode=&order=0&thold=0> (last visited June 21, 2004).

This description is useful in reminding us that not every aspect of guild life is unique to guilds and that not every feature of guilds requires a purposive explanation. Nonetheless, its explanatory power is weak. We need an explanation that makes sense of the fact that where there is code-level support for guilds, they tend very strongly to displace other, potentially competing, social groups.¹⁰⁵

We might, for example, understand guilds as groups optimized to minimize transaction costs.¹⁰⁶ Based on this view, players form guilds to help them accomplish important tasks cooperatively. The hard part about cooperation is making sure that others are playing along. A guild's real "use" is its ability to reduce the difficulty of knowing the many other players on the server to the simpler task of knowing only the players in your guild. Larger size guilds allow for larger in-game challenges, but they are increasingly more difficult to organize.¹⁰⁷ Here, the code-level features are the kernels around which social groups crystallize.

It is also important to pay attention to the negotiations and relations among guilds. Take for example, the coordination problem for EverQuest raids. In a raid, a group of players go to a highly dangerous area and systematically kill the monsters there. Good raid strategy involves close coordination and patience. If a raiding party draws the attention of too many monsters at once, it is likely to be slaughtered. For this reason, it is safer and easier for one group to raid a given area than for two distinct groups to try at the same time.¹⁰⁸ The structure of EverQuest raids thus creates a clas-

105. See *Google Web Directory*, at http://directory.google.com/Top/Games/Video_Games/Roleplaying/Massive_Multiplayer_Online/EverQuest_Games/EverQuest/ (last visited Oct. 14, 2004). The Google Web Directory lists 494 EverQuest guilds with web sites. The entire EverQuest section available at the same web address lists only 708 sites total. The vast majority of non-guild sites are commercial or otherwise not reflective of in-game communities.

106. See Ronald Coase, *The Nature of the Firm*, 4 *ECONOMICA* 386 (1937).

107. See Vincent Archer, *Re: [MUD-Dev] MMORPGs & MUDS*, at <http://www.kanga.nu/archives/MUD-Dev-L/2002Q1/msg00159.php> (Jan. 15, 2002) (taxonomizing sizes and motivations of EverQuest guilds). See generally James Grimmelmann, *Five Ways of Looking at a Guild*, at <http://research.yale.edu/lawmeme/modules.php?name=news&file=article&sid=1253> (Oct. 14, 2003) (discussing issues of guild size and group cohesion).

108. See generally Neferti, *Neferti's EverQuest Raid Info Page*, at <http://www.geocities.com/neferaza/raids.html> (last visited Oct. 14, 2004). Having multiple groups raiding nearby also increases the risk of monsters attacking weak members of a raid party, as

sic coordination problem for which websites have emerged to handle the necessary cooperation. These raid calendars allow raiding parties to reserve zones for future raids.¹⁰⁹ Since these sites are entirely independent of the game itself, they have available to them only those sanctions that guilds can enforce against other guilds. The most notable of these sanctions, of course, is the ability to ruin another group's raid with well-timed interference, drawing monsters out into open combat before the raiding group is prepared to fight them.

I suspect that we are witnessing the bottom-up emergence of governing institutions in games, as catalyzed by whatever code-level features the games offer for guild formation. Of course, what we currently have is quasi-feudal: allegiance hierarchies which start to become powerful entities in their own right.¹¹⁰ However, many EverQuest shards have developed "uberguilds"¹¹¹ which are the clearinghouses for inter-guild disputes, and there is speculation that Maxis is in the process of losing effective authority over The Sims Online.¹¹² The political relationship between these increasingly powerful guilds and game designers also needs explication.

There is something incongruous about the trend towards increasingly important guild extensions. "Player towns," essentially guild-owned gated communities, are one of the most hyped fea-

well as causing performance problems (due to the large number of players) that can cause dangerous slowness and difficulty responding to threats.

109. See, e.g., *Everquest Luclin Event Calendar*, at <http://everquest.estoncom.com/luclin/index.shtml> (last visited June 21, 2004).

110. See, e.g., Kiirnai, *To Tread or Not To Tread (Mill, That Is . . .)*, at <http://www.warcraftcentral.com/forum/archive/index.php/t-1921> (last visited Oct. 14, 2004); Sintour and Ferall, *Comments to Topic: Brell Uberguild?*, at http://vnboards.ign.com/Brell_Serilis_Board/b5013/57463849/?1 (Oct. 2003); see generally Mike Sellers, *Creating Effective Groups and Group Roles in MMP Games*, at http://www.gamasutra.com/resource_guide/20020916/sellers_01.htm (Sept. 16, 2002); Myschyl et al, *Myschyl's Roundtable: Economic and Political Systems in MMORPGs*, at <http://www.legendmud.org/raph/gaming/myschyl2.html> (last visited June 21, 2004).

111. See Scott Jennings, *RE: [MUD-Dev] D&D vs. MMORPG "Complexity"*, at <http://www.kanga.nu/archives/MUD-Dev-L/2003Q2/msg00102.php> (Apr. 16, 2003).

112. See, e.g., Urizenus, *Interview with Anonymous, on Alphaville's Bondage, Discipline & Sadoomasochism Community*, THE ALPHAVILLE HERALD, Dec. 20, 2003, at <http://www.alphavilleherald.com/archives/000066.html>. At the State of Play conference, there were questions from the audience during the "Governance" panel directed to the possibility of Maxis needing to negotiate with the Sims Shadow Government over policy changes, but video and transcripts from the conference are not yet available.

tures hurtling towards the market.¹¹³ Other games are trying to devise richer political systems, including elections, mayors, factions in conflict, explicit patron-client relationships, and other simulations of real-world governments and states. Within limits, it seems almost as though new games are in a race to create territorial sovereigns in their games' code.

And yet, the question arises: If a game had a rich enough social universe, why would it need any of these features? Isn't the need to implement elections in code a sign that the game is too flat to allow players to institute their own elections? Conversely, isn't there something artificial about an election held through game code? Is anything really at stake, or is it just another quest for players in the same way that killing a dragon in the mountains would be?

C. Conclusion

This section has asked two related questions in the administration of justice by players: What punishments are available, and what institutions decide when to use these punishments? To the first question, my answer is that players generally must use retaliation in kind. And to the second, my answer is that guilds are often the locus of effective decision-making power among players. Taken together, these answers suggest that guilds provide an important link between the positive pleasure of playing a social game and the negative task of making other players play nicely. For lawyers used to dealing with real-life interactions and institutions, neither of these problems is a genuinely new one. Since guilds are implicated in both, they may provide useful insights in thinking about crime and its effective punishment.

V. THE GOD PROBLEM

Every living person retains the memory, and perhaps the lasting anxiety, of a time of helplessness, when as a child he was in the hands, and at the mercy, of beings enormously stronger and more capable than himself, whose

113. See, e.g., *SWG Housing System*, *SWG Stratics*, at <http://swg.stratics.com/content/gameplay/guides/guides.php?Cat=8&vid=49> (last visited Oct. 14, 2004) (describing Star Wars Galaxies system of player-run towns).

purposes were often hard to comprehend and not always easy to share, and who seemed to combine, in perplexing and unpredictable ways, underlying benevolence with occasional injustice.¹¹⁴

Although this quotation is ostensibly about children and parents, Jasper Griffin uses that relationship as a metaphor, a way of capturing the terrifying powerlessness that characterized the ancient Greek conception of the relationship between mortals and gods. The gods possessed (and frequently used) their awesome powers to shape the lives of men, but were largely unrestrained by any force of compassion or ethics. Oedipus, acting out a tragic script he had done nothing to “deserve,” could complain of his ill-treatment to no higher authority.

The relationship of powerless mortal to potentially capricious god is well-understood in the context of virtual worlds. Whether the designers who control game software and game servers are called “gods,” “wizards,” “sysops,” or “GMs,” players are inescapably in their hands and at their mercy. As well-meaning as designers may be towards their game communities, as long as there are any designers, someone will have the power to pull the plug. In the real world, even the most arbitrary dictator is still limited to those orders he can bribe, bedazzle, brainwash, or bully someone into carrying out. Code knows no such qualms. In the real world, even a government that tries to abrogate all property rights will face the intractable problem of trying to wrest items from their possessors. Virtual possession, however, provides no such protection. While virtual rights can be made inviolable as against other players, they are completely meaningless as against the designer. The search for some kind of check on this power has been a recurring theme throughout the history of virtual worlds.

Placing checks on seemingly overweening power is also a recurring theme in legal scholarship concerning governments. Constitutional lawyers, cyberspace theorists, and international lawyers all deal with the bogeyman of the sovereign who answers to no higher authority and who therefore cannot be directly compelled to do right. Yet these bodies of law have all identified and named techniques that might be used to bribe, to shame, or to threaten the

114. Jasper Griffin, *It's all Greek!*, N.Y. REV. OF BOOKS, Dec. 18, 2003, at 64.

sovereign and to place limits on its capriciousness. In this section, I will trace out some of the major strands of thinking about real-life versions of this “god problem” and identify how these various forms of restraint might appear in games.

A. *A Cyberspace Approach: Market Exit*

Virtual worlds are not democratic. It is true that the designers could hold elections among players and promise to be bound by the results, but such promises can always be broken. At the end of the day, all such referenda are never more than advisory.¹¹⁵ To put this point another way, at least since Locke, the legitimacy of republican government has been intertwined with the right of revolution.¹¹⁶ If the government refuses to obey the results of an election, it must expect the citizenry to rise up and depose. But there is no way to depose the designers of a game.

This is not to say that game designers are entirely free to act as tyrants. If they do, players will leave the game. If we have respect for players’ autonomy, their continued willingness to play must count for something. Indeed, any game dependent on players for its revenue will have very strong incentives not to frustrate the strong desires of a majority for too long.¹¹⁷ Players, as a single col-

115. *A Tale in the Desert* has gone through exactly this cycle; it promised to allow players to vote on “laws.” After a series of proposed referenda that would have altered basic features of the game system, the designers backpedaled and declared certain “feature requests” off-limits. See *A Tale in the Desert — Lawmaking Supplement*, at <http://www.atitd.com/man-lawmaking.html> (last visited June 22, 2004). Note also that a suitably motivated game company *could* bind itself through real world measures. It could sign a binding contract with players pledging to follow the results of elections; it could also be incorporated with players as shareholders.

116. *E.g.*, JOHN LOCKE, *SECOND TREATISE OF GOVERNMENT* ch. 19, sec. 222 (Hackett Publ’g Co. 1980) (1690) (“Whensoever therefore the *legislative* shall transgress this fundamental rule of society; and either by ambition, fear, folly, or corruption, *endeavor* to *grasp* themselves, or *put into the hands of any other, an absolute power* over the lives, liberties, and estates of the people; by this breach of trust they *forfeit the power* the people had put into their hands for quite contrary ends, and it devolves to the people, who have a right to resume their original liberty, and, by the establishment of a new legislative, (such as they shall think fit) provide for their own safety and security, which is the end for which they are in society.”) (emphasis added).

117. This observation has bite even when describing games maintained as a labor of love. Should every player quit, the “tyranny” of a game’s government becomes an entirely metaphysical question.

lective group, have power over designers through their exit option. It is the virtual equivalent of emigration.¹¹⁸

The relative virtues and vices of these two forms of accountability — the ability to replace a community's leaders and the ability to leave the community altogether — have been extensively debated in the literature on “cyberspace self-governance.” David Post and David Johnson are closely identified with the claim that an exit option is normatively superior.¹¹⁹ Neil Netanel¹²⁰ and Jack Goldsmith,¹²¹ among others, have offered replies.¹²² I do not intend to enter this debate on one side or the other. Instead, I suggest that virtual-world gaming communities have the potential to ground this debate firmly in reality (or is it in virtuality?) by providing extensive empirical evidence. They are probably the best example of large-scale cyberspace communities that have raised these issues directly. As a result, two facts about the nature of quitting a game are relevant.

First, such power is exercised outside of the game itself. “Quit” is not really a command in the game interface.¹²³ This reaching-out means that the dialectic between players and designers will leave traces that are not visible within the game itself, therefore, looking only at the virtual world provides an incomplete picture. We cannot speak usefully about in-game politics without knowing something about out-of-game relationships. How much do players

118. On this theme, see generally James Grimmelman, *Life, Death, and Democracy Online*, at <http://research.yale.edu/lawmeme/modules.php?name=news&file=article&sid=1239> (Sept. 28, 2003).

119. See, e.g., David R. Johnson & David G. Post, *Law and Borders — The Rise of Law in Cyberspace*, 48 STAN. L. REV. 1367, 1398-99 (1996); David G. Post, *Anarchy, State, and the Internet: An Essay on Law-Making in Cyberspace*, 1995 J. ONLINE L. art 3 (1995).

120. Neil Weinstock Netanel, *Cyberspace Self-Governance: A Skeptical View from Liberal Democratic Theory*, 88 CAL. L. REV. 395 (2000).

121. Jack L. Goldsmith, *Against Cyberanarchy*, 65 U. CHI. L. REV. 1199 (1998). But see David G. Post, *Against “Against Cyberanarchy,”* 17 BERKELEY TECH. L.J. 1365 (2002).

122. See Margaret Jane Radin & R. Polk Wagner, *The Myth of Private Ordering: Rediscovering Legal Realism in Cyberspace*, 73 CHI.-KENT L. REV. 1295 (1998).

123. Every game interface, of course, contains “log out” or some similar command to end a game session. But a player who logs out can easily log in again later on and resume playing. A player who has quit a game, on the other hand, has ceased to be involved with it and can no longer participate directly in its virtual world.

pay each month?¹²⁴ What other games are available?¹²⁵ How rich are the message boards and fan sites players can use to talk about their dissatisfactions?¹²⁶

Second, the loss of players is much more of a continuum than a binary up-or-down referendum. In theory, designers will be sensitive to the loss of even one player, while elected governments are sensitive only to the loss of enough voters to deny them a majority. In some sense then, the institutionalized avenue for voicing critiques of government is to the government itself, rather than to other citizens, since the goal is to persuade the government, rather than to persuade an electorate.

B. *An International Law Approach: Players and Investors*

Another perspective on the “unlimited” power of game designers comes from looking at the rise of real-life markets in virtual items.¹²⁷ In the real world, those who make investments in a country expose themselves to uniquely “sovereign” risks because of the danger that the government might alter the laws under which they claim to hold assets.¹²⁸ Players find themselves in a similar relationship with games because they are largely without recourse if the designers change the game’s rules mid-stream. However, like investors, they can bring a game to its knees if they collectively choose to

124. See *Stratics Central*, at http://www.stratics.com/cgi-bin/databases/games/db.cgi?db=default&uid=default&view_records=1&sb=1&so=ascend&Phase=released (last visited June 22, 2004) (containing a list of games annotated with monthly fees).

125. *Id.*

126. See, e.g., *id.* at <http://www.stratics.com/>. The sidebar at the left links to sub-sites with message boards for specific games.

127. See generally Julian Dibbell, *Play Money — Diary of a Dubious Proposition*, at <http://www.juliandibbell.com/playmoney/> (Apr. 21, 2004) (presenting weekly snapshots of Ultima Online auctions at eBay); e.g., Julian Dibbell, *Market Watch*, at http://www.juliandibbell.com/playmoney/2004_01_01_playmoney_archive.html#107349938376201762 (Jan. 7, 2004); Julian Dibbell, *EconoMUDtrics*, at <http://terranova.blogs.com/terranova/2003/10/economudtrics.html> (Oct. 8, 2003); see also Castronova, *supra* note 27; eBay — *Internet Games*, at <http://listings.ebay.com/aw/plistings/list/all/category1654/index.html> (last visited June 22, 2004).

128. See generally ALAN C. SWAN & JOHN F. MURPHY, *CASES AND MATERIALS ON THE REGULATION OF INTERNATIONAL BUSINESS AND ECONOMIC RELATIONS* 1051-1110 (2d ed. 1999).

withdraw their support.¹²⁹ I am not suggesting that we might actually apply the international law of sovereign expropriations to games. I am instead suggesting that this example of “unlimited” power from the real world provides a useful analogy for thinking about the powers of game designers.

Speaking loosely, we might call multiplayer games tourist economies because their principal wealth-creating activity is providing pleasure for those who choose to vacation there. Their incorporeal nature means that they can’t make tangible goods capable of being exported and that anything “made” in-game must stay there.¹³⁰ On the other hand, most games see capital, or hard currency, flowing inexorably inwards.¹³¹ Players invest by paying monthly fees to its government, the designers. That government supplies various services by converting the capital supplied by players into game infrastructure. New areas of the map, items available for purchase and the merchants who sell them, and those infinitely respawning monster sites are all tourist-industry infrastructure.¹³²

The “investors” in a game are in an interesting position. They cannot remove capital from the game once it has been spent on internal improvements. There are no goods susceptible to export and their original investment partner, the game’s designers, will not be willing to unwind the investment. The best that a player-investor can do is to make profits within the game’s economy and then find a new player-investor willing to step into her shoes. Positions cannot be liquidated, only transferred. To leave a game, an individual player-investor must find another player-investor in an

129. See generally Edward Castronova et al., *The Coming MMORPG Crash, Or Not*, at http://terranova.blogs.com/terra_nova/2003/11/the_coming_mmor.html (Nov. 8, 2003) (discussing the economics of the virtual world marketplace).

130. See Hunter & Lastowka, *supra* note 1, at 51-56.

131. See Castronova, *supra* note 27, at 9-10 (discussing the business models of virtual worlds).

132. To be more precise, the designers spend this hard currency paying programmer salaries and buying computers to serve as servers. The money thus cycles back into the “real” economy. But notice that both of these sets of purchases are effectively irreversible: it is not possible to force a programmer to disgorge money back to the game once she has been paid her salary. Nor is it generally possible to sell off the game’s servers for more than pennies on the dollar. It is not much of a stretch to impute this irreversibility to the higher-level conversion of investment dollars into in-game infrastructure.

offshore market who wishes to invest in the game to the same degree as the leaving player-investor.

This fact leads to Julian Dibbell's various observations about the practical influence of "eBayers."¹³³ By allowing players to buy their way into or out of a game with hard (real world) currency, these markets tamper with the political climate of their games. On the one hand, allowing the liquidation of one's stake in a game makes players less bought-in to a game and less susceptible to its control. After all, as long as the game has not actually suspended your account, you can always turn around, convert your character and assets into cash, and walk away. The effective threats that other players can make against you¹³⁴ are that much weaker.

Further, by allowing players to purchase their way into a game,¹³⁵ the presence of an offshore market changes the list of real-world attributes that influence in-game success. Without such markets, one's success is mostly a function of one's skill in playing and one's willingness to devote time to the game. Where they exist, however, wealthy players can leapfrog over poorer ones, purchasing the symbols of success, rather than winning them directly. If we take the idea of conspicuous consumption¹³⁶ seriously, those able to purchase their way into high status will be competing with those seeking to use skill or time.

For now, the calculus of a game designer is rather simple: maximize the number of players, and therefore settle disputes in whichever way will cause the fewest people to leave in annoyance. Thus, games expel griefers because each griefer threatens, if left unchecked, to drive away multiple players.¹³⁷ This policy does not always mean catering to the immediate requests of the many over the requests of the few. There are players who enrich the game world and make the environment more enjoyable for others. These play-

133. See Dibbell, *supra* note 2.

134. See *infra* Part IV.

135. See, e.g., IGE.com — About Us, at <http://www.ige.com/aboutus-> (last visited June 22, 2004).

136. See *infra* part III.

137. See, e.g., Raph Koster, *Small Worlds: Competitive and Cooperative Structures in Online Worlds*, at <http://www.legendmud.org/raph/gaming/smallworlds.html> (2003) ("Given an aggressive group, kick them out of your game. Otherwise, they will dominate via genocide.").

ers are of special value to designers precisely because their effects are reflected in the overall number of players.¹³⁸

But many games are starting to break out of this form of equality. They hope to capture for themselves some of the money that currently goes to other players from those who buy their way in. There.com is probably the most prominent example, but it is hardly alone.¹³⁹ Such changes undo the rough identity between the notions of “citizen” and “investor.” The great mass of low-paying regular players are now useful principally to the extent that they keep the high-rollers happy.¹⁴⁰ If driving away five \$10 per month players causes a \$100 per month player to double her spending, the game administration will happily make such a trade.

Whether such changes will be stabilizing or destabilizing is a fascinating question that requires us to think about the relationship between real and virtual economies — between real and virtual societies. Thinking of the “god problem” from an international law perspective on investors makes clear that it is hardly a one-sided power dynamic. The players may have as much to fear from other players’ influence on game designers as they do from the whimsy of the designers themselves.

C. A Constitutional Approach: Rights

Game designers love to give other game designers advice.¹⁴¹ One of the most frequently given pieces of advice is that almost nothing is more destructive to a thriving game community than reg-

138. See F. Randall Farmer, *Habitat Anecdotes*, at <http://www.kanga.nu/archives/MUD-Dev-L/1997Q2/msg00977.php> (May 30, 1997). On the relative roles of different sorts of players, see generally Richard Bartle, *Hearts, Clubs, Diamonds, Spades: Players Who Suit MUDs*, at <http://www.mud.co.uk/richard/hcds.htm> (June 1996).

139. *Welcome to There!*, at <http://www.there.com> (last visited June 22, 2004). The late 10^{SIX} — so named for its ambition to have a million (*i.e.* 10⁶) simultaneous players — also attempted something similar. See Frank Crowell, *Re: MUD-Dev[LED0]*, at <http://www.kanga.nu/archives/MUD-Dev-L/2000Q2/msg00534.php> (Apr. 23, 2000).

140. To abuse the tourist-economy metaphor, the game now cares about the mass of its populace only as a way to fill the supply of waitstaff, tour guides, and entertainers demanded by the rich tourists to attend to them hand and foot.

141. See, e.g., *MUD-Dev — Discussion of MUD System Design, Development, and Implementation*, at <https://www.kanga.nu/lists/listinfo/mud-dev/> (last visited June 22, 2004); RICHARD BARTLE, *DESIGNING VIRTUAL WORLDS* (2003); JESSICA MULLIGAN & BRIDGETTE PATROVSKY, *DEVELOPING ONLINE GAMES: AN INSIDER’S GUIDE* (2003).

ular intervention by its designers.¹⁴² Since designers are not bound by the same “laws” of code as regular players, their presence can be destabilizing. When designers engage in conduct not available to players, it highlights their distance from players and their apparent unaccountability.¹⁴³

In political theory terms, this claim is striking. Among the most benevolent things a dictator can do is to refrain from exercising his powers. It is more typical to object that dictatorial action is unwise because it is unjust or ineffective than it is to appeal to the unpleasant aesthetics of dictatorial fiat. Yet this is precisely the concern that animates designers. “How can I convince my players to like me?” is a much more common question than “What acts would be most just for my players?”¹⁴⁴

I think the game designers are on to something. Rather than try to force games into the wrong conceptual box by asking simply how democratic, how efficient, or how just their rules are,¹⁴⁵ we should instead see whether real-life lawyers might have answers to their questions. In my opinion, the question that designers are asking is how can those who are already possessed of power best legitimate their exercise of it. A closer investigation into the ways in which game companies use their powers (or refrain from using their powers) and an explanation of this use of power in real-life political terms are necessary. I suspect that the “best practices” of good games, ones which players think are basically fair, will closely resemble some of the “best practices” of good governments.

142. E.g., Chip Morningstar & F. Randall Farmer, *The Lessons of Lucasfilm's Habitat*, in *CYBERSPACE: FIRST STEPS* (Michael Benedikt ed., 1990); Raph Koster, *Declaring the Rights of Players*, at <http://www.legendmud.org/raph/gaming/playerrights.html> (Aug. 27, 2000).

143. Morningstar & Farmer, *supra* note 142 (“Wherever possible, things that can be done within the framework of the percipient level should be.”).

144. See MUD-Dev Mailing List Archive, at <http://www.kanga.nu/archives/MUD-Dev-L/> (last visited June 22, 2004).

145. The appropriateness of asking such questions of games was a major theme at the conference. Most notably, see Castronova, *supra* note 2. For an overview of presentations that touched on this theme, see James Grimmelmann, *Free As in Gaming?*, at <http://research.yale.edu/lawmeme/modules.php?name=news&file=article&sid=1290> (Dec. 4, 2003).

For example, extensive literature exists on the theory and contours of due process rights.¹⁴⁶ Such rights do more than protect people against government. There is a strong argument that such rights are an important technique for keeping democracy functioning and for legitimating government itself.¹⁴⁷ Well-defined procedures constrain the discretion of a decisionmaker and provide assurances that decisions in general are made fairly, and not by standards invented for a particular result in a particular case. Within a given case, such requirements as a written record, notice of the charges, and the “rule of law” more generally provide a crucial sense of auditability. Any complaint about the fairness of the result can be answered effectively with a peremptory reference to the existing record and the governing law.

For similar reasons, administrative agencies issue guidance documents not only to put others on notice of the applicable law, but also to send a signal that they are constraining their own discretion with respect to particular issues.¹⁴⁸ One of the main techniques that legitimates designer intervention in games is when such intervention is understood to be reserved to certain offenses, most often those involving offensive speech, commercialization, or grieving, which the administration has officially stated are its business.¹⁴⁹

146. For a reasonable overview of the shape of due process in historical context, see Cynthia R. Farnia, *Conceiving Due Process*, 3 YALE J.L. & FEMINISM 189 (1991).

147. Thus, for example, John Hart Ely’s famous *Democracy and Distrust*, although principally about the democratic process and the role of judicial review in keeping democratic institutions responsive to popular will, opens with a discussion of the Due Process clause. See generally JOHN HART ELY, *DEMOCRACY AND DISTRUST: A THEORY OF JUDICIAL REVIEW* (1981).

148. “[S]uch guidelines have the not inconsiderable benefits of apprising the regulated community of the agency’s intentions as well as informing the exercise of discretion by agents and officers in the field.” *Community Nutrition Instit. v. Young*, 818 F.2d 943, 949 (D.C. Cir. 1987).

149. See, e.g., *Rules of Conduct Within Anarchy Online*, at <http://community.anarchy-online.com/content/corporate/rulesofconduct.html> (last visited Sept. 14, 2004) (“We encourage role-playing in the game and on the role-playing conference, but remember that role-playing is no excuse for harassment. If you want to play an obnoxious role, you have a great responsibility to avoid hurting other people’s feelings. These social guidelines take precedence over role-playing in a conflict.”). Compare *Second Life Community Standards*, at <http://secondlife.com/corporate/community.php> (last visited Sept. 14, 2004) (“Linden Lab does not exercise editorial control over the content of Second Life, and will make no specific efforts to review the textures, objects, sounds or other content created within Second Life.”), with *There.com Terms of Service: Behavior Guidelines*, at http://info.there.com/idx/32/183/article/Terms_of_Service_TOS_Be

D. Conclusion

This part has embedded the seemingly unbalanced power relationship between players and designers in three complementary contexts. First, it is an example of a general pattern in cyberspace in which the game is only a piece in a larger, voluntary relationship. Second, it resembles the relationship between sovereign nations and foreign investors. And third, it is similar to the power imbalance between a government and one of its own citizens. These three analogies have different implications, but I think the complexity of this portrait confirms that this relationship is worth further study.

VI. CONCLUSION

There are two themes running throughout this article that I would like to highlight. First, there are questions of power: Who can do what to whom? In various combinations, I have asked what players and designers can do to, for, or with each other. Second, there are questions of meaning: How do people understand the significance of various features and behaviors in these virtual worlds?

I believe that because of the virtuality of these worlds, these two questions are intertwined. Establishing the social understandings that make a virtual society possible is both an act of laying out its power relations and an act of agreeing upon its semiotics. In its own way, each of the four topics discussed illustrates one aspect of the way in which these two questions relate to each other. They may even be the same question.

Of course, these questions are also familiar to real world lawyers and scholars. The answers to these questions become more salient when they are analyzed in the context of online virtual worlds. It is my hope that from this reflection we may gain insight into answering these questions in the virtual world we inhabit offline.