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## Antitrust Law and Virtual Worlds

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# ANTITRUST LAW AND VIRTUAL WORLDS

MARQUES TRACY\*

I. Introduction .....	369
II. Purposes of Antitrust Law .....	370
III. Economic Effect of Real-Money Trading in Virtual Worlds .....	371
IV. Tying Arrangements .....	374
V. Market Power .....	375
VI. Distinct and Separate Products .....	379
VII. Monopolization.....	380
VIII. Application of Section 3 of the Clayton Act .....	384
IX. Conclusion .....	387

## I. INTRODUCTION

Much has been written about the law in virtual worlds, though the focus has been on the more obviously applicable areas of the law, namely property, copyright, and crime. Indeed, in the few instances when disputes involving virtual worlds have reached a federal court, the focus has usually been on contract or copyright claims. It is the purpose of this paper to argue for the use of the antitrust laws as set forth in sections 1 and 2 of the Sherman Act,<sup>1</sup> and possibly the Clayton Act,<sup>2</sup> to forestall the anticompetitive behavior of virtual world developers.

First, this paper will discuss the general purposes of antitrust law and the reasons for their preeminence in commercial law. Second, this paper will focus on the economic effect of real-money trading (“RMT”) in virtual worlds, focusing on the perceived, as well as the actual, impacts on commerce. Third, this paper will argue for the application of section 1 of the Sherman Act’s prohibition against tying arrangements as it relates to RMT. Fourth, this paper will argue for the application of section 2 of the Sherman Act’s prohibition against monopoly as it relates to RMT. Finally, this paper will introduce the possibility of liability under the Clayton Act, noting the difficulty inherent in such analysis because of the nature of in-game items.

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<sup>1</sup> Sherman Antitrust Act, 15 U.S.C. §§ 1–2 (2006).

<sup>2</sup> Clayton Act, 15 U.S.C. § 18 (2000).

## II. PURPOSES OF ANTITRUST LAW

In its relatively brief existence, the Sherman Act has received some of the highest protection of all of our federal laws. Less than ninety years after its enactment, Justice Thurgood Marshall described the antitrust laws, particularly the Sherman Act, as “the Magna Carta of free enterprise.”<sup>3</sup> As Marshall saw them, they were “as important to the preservation of economic freedom and our free-enterprise system as the Bill of Rights is to the protection of our fundamental personal freedoms.”<sup>4</sup> Earlier courts have also described the Sherman Act as “a comprehensive charter of economic liberty aimed at preserving free and unfettered competition as the rule of trade.”<sup>5</sup> As Justice Black explained in *Northern Pacific Railway Co. v. United States*:

[The Sherman Act] rests on the premise that the unrestrained interaction of competitive forces will yield the best allocation of our economic resources, the lowest prices, the highest quality and the greatest material progress, while at the same time providing an environment conducive to the preservation of our democratic political and social institutions.<sup>6</sup>

While the policy unequivocally laid down by the Act is competition, there are certain practices which, “because of their pernicious effect on competition and lack of any redeeming virtue,” are “conclusively presumed to be unreasonable and therefore illegal without elaborate inquiry as to the precise harm they have caused or the business excuse for their use.”<sup>7</sup> Some of these practices which the courts have held to be *per se* unreasonable under section 1 of the Sherman Act include price fixing, division of markets, group boycotts, and tying arrangements.<sup>8</sup> It is this last practice that is of particular relevance in virtual worlds.

While section 1 is the most frequently invoked section of the Act,<sup>9</sup> it is incomplete because it only applies to conduct by two or more actors.<sup>10</sup> Accordingly, Congress addressed this deficiency in section 2,<sup>11</sup> effectively conferring upon the federal courts “a new jurisdiction to apply a ‘common law’ against monopolizing.”<sup>12</sup> Unlike section 1 of the Sherman Act, section 2 is aimed not at improper conduct but “at a pernicious market structure in which the concentration of power saps the salubrious influence of competition.”<sup>13</sup> Judge

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<sup>3</sup> *United States v. Topco Assocs., Inc.*, 405 U.S. 596, 610 (1972).

<sup>4</sup> *Id.*

<sup>5</sup> *N. Pac. Ry. Co. v. United States*, 356 U.S. 1, 4 (1958); *see also* *Appalachian Coals, Inc. v. United States*, 288 U.S. 344, 359 (1933).

<sup>6</sup> *N. Pac. Ry.*, 356 U.S. at 4.

<sup>7</sup> *Id.* at 5.

<sup>8</sup> *Id.*

<sup>9</sup> “Every contract, combination in the form of trust or otherwise, or conspiracy, in restraint of trade or commerce among the several States, or with foreign nations, is hereby declared to be illegal.” 15 U.S.C. § 1 (2006).

<sup>10</sup> *Berkey Photo, Inc. v. Eastman Kodak Co.*, 603 F.2d 263, 272 (2d Cir. 1979).

<sup>11</sup> “Every person who shall monopolize, or attempt to monopolize, or combine or conspire with any other person or persons, to monopolize any part of the trade or commerce among the several States, or with foreign nations, shall be deemed guilty of a felony . . . .” 15 U.S.C. § 2 (2006).

<sup>12</sup> *Berkey Photo*, 603 F.2d at 272 (quoting 3 P. AREEDA & D. TURNER, ANTITRUST LAW 40 (1978)).

<sup>13</sup> *Id.*

Learned Hand in *United States v. Aluminum Co. of America* explained that the Sherman Act is based on the following belief: “that possession of unchallenged economic power deadens initiative, discourages thrift and depresses energy; that immunity from competition is a narcotic, and rivalry is a stimulant, to industrial progress; that the spur of constant stress is necessary to counteract an inevitable disposition to let well enough alone.”<sup>14</sup> Judge Hand went on to explain that Congress was not “actuated by economic motives alone” in enacting section 2.<sup>15</sup> Indeed, “[c]onsiderations of political and social policy form a major part of our aversion to monopolies, for concentration of power in the hands of a few obstructs opportunities for the rest.”<sup>16</sup> Yet, in reviewing monopoly claims under section 2, courts must be cautious not to let the Sherman Act “be invoked perversely in favor of those who seek protection against the rigors of competition.”<sup>17</sup> As Judge Hand is often quoted as saying, “The successful competitor, having been urged to compete, must not be turned upon when he wins.”<sup>18</sup> The balancing of successful innovation on the one hand and competition on the other is a difficult process not easily resolved, and of the utmost concern when it comes to the study of virtual worlds.

### III. ECONOMIC EFFECT OF REAL-MONEY TRADING IN VIRTUAL WORLDS

Since around 1987, players of virtual worlds have traded items from the games for real money, or RMT.<sup>19</sup> Though the statistics are imprecise, they are quite staggering. There are over 20 million people playing such games, and the global amount of RMT is somewhere between \$100 million and over \$1 billion annually.<sup>20</sup> Edward Castronova, in his landmark 2001 article, noted that nearly a third of the adults paying for one virtual world spent more time in the world in a typical week than they do working for pay.<sup>21</sup> The issue has become quite controversial and divisive, leading to several lawsuits.<sup>22</sup> Additionally, publications have described unseemly images of overworked “gold farmers” all over the world.<sup>23</sup> Beyond all this, however, the main reason cited in favor of the

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<sup>14</sup> *United States v. Aluminum Co. of Am. (Alcoa)*, 148 F.2d 416, 427 (2d Cir. 1945).

<sup>15</sup> *Id.*

<sup>16</sup> *Berkey Photo*, 603 F.2d at 273.

<sup>17</sup> *Id.*

<sup>18</sup> *Alcoa*, 148 F.2d at 430.

<sup>19</sup> Edward Castronova, *A Cost-Benefit Analysis of Real-Money Trade in the Products of Synthetic Economies*, 8 INFO, at 2 (Oct. 2006) [hereinafter Castronova, *Cost-Benefit Analysis*], available at [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=917124](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=917124).

<sup>20</sup> *Id.* at 4.

<sup>21</sup> Edward Castronova, *Virtual Worlds: A First-Hand Account of Market and Society on the Cyberian Frontier*, at 3 (Ctr. for Econ. Studies & Ifo Inst. for Econ. Research, Working Paper No. 618, 2001) [hereinafter Castronova, *Virtual Worlds*], available at [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=294828](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=294828).

<sup>22</sup> Complaint, *Blizzard Entm't, Inc. v. In Game Dollar, LLC*, No. SACV07-0589 (C.D. Cal. May 22, 2007); Complaint, *Hernandez v. Internet Gaming Entm't, Ltd.*, No. 07-21403 (S.D. Fla. Aug. 17, 2007).

<sup>23</sup> See, e.g., Julian Dibbell, *The Life of the Chinese Gold Farmer*, N.Y. TIMES, June 17, 2007, [http://www.nytimes.com/2007/06/17/magazine/17lootfarmers-t.html?\\_r=1&pagewanted=all](http://www.nytimes.com/2007/06/17/magazine/17lootfarmers-t.html?_r=1&pagewanted=all); JULIAN DIBBELL, PLAY MONEY: OR HOW I QUIT MY DAY JOB AND MADE MILLIONS TRADING VIRTUAL

prohibition of RMT is that it “disturbs the game’s atmosphere; it is said to be ‘wrong’ and ‘against the rules’.”<sup>24</sup> For these reasons, among others, nearly all virtual world developers have prohibited the practice of RMT through their End User License Agreements (“EULAs”) or their Terms of Service/Use (“TOS/TOU”).<sup>25</sup> An excerpt of such a provision, from Sony’s Everquest II User Agreement and Software License, states as follows: “You may not buy, sell or auction (or host or facilitate the ability to allow others to buy, sell or auction) any Game account, characters, items, coin or copyrighted material or any other intellectual property owned or controlled by us or our licensors False.”<sup>26</sup>

Though potential antitrust liability has not been thoroughly examined in this burgeoning field, several scholars have discussed the perceived economic effects of virtual worlds generally, and RMT in particular.<sup>27</sup> As Castronova explains, a virtual world’s business success derives from “[its] ability to attract customers who are willing to pay an on-going fee to visit the world, and that requires [virtual worlds] to offer a form of entertainment that is persistently more attractive than the competition.”<sup>28</sup> According to Castronova, the true source of a virtual world’s success lies in the nature of scarcity: “Constraints create the possibility of achievement, and it is the drive to achieve something with the avatar that seems to create an obsessive interest in her well-being.”<sup>29</sup> Yet in-game items are unique in that they are “infinitely-durable goods,” the stock of which rises continually as more and more people enter the virtual world.<sup>30</sup> What results is a decrease in demand and thus a fall in RMT price; indeed, the only reason such markets persist is that virtual worlds continue to introduce new items, whose initial scarcity sustains their demand for a time.<sup>31</sup> This leads to a network monopoly, driven by the fact that most users seem to be willing to “live” in at most one virtual world at a time, as switching worlds is costly and requires time to reacquaint oneself.<sup>32</sup>

Despite this tendency toward network monopoly, Castronova suggests several reasons why the virtual market is not likely to be monopolized.<sup>33</sup> First, he notes differing tastes and the fact that production of game content and its maintenance are such labor intensive activities make it difficult for one developer

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LOOT, 18–19 (2006).

<sup>24</sup> Castronova, *Cost-Benefit Analysis*, *supra* note 19, at 13.

<sup>25</sup> Arseni Starodoumov, Real Money Trade Model in Virtual Economies, at 17 (June 16, 2005) (unpublished Master’s thesis, Stockholm School of Economics, Institute of International Business), available at [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=958286&rec=1&srcabs=917124](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=958286&rec=1&srcabs=917124).

<sup>26</sup> *Id.* at 39.

<sup>27</sup> See, e.g., Castronova, *Virtual Worlds*, *supra* note 21; Edward Castronova, *On Virtual Economies* (Ctr. for Econ. Studies & Ifo Inst. for Econ. Research, Working Paper No. 752, 2002) [hereinafter Castronova, *Virtual Economies*], available at [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=338500&rec=1&srcabs=294828](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=338500&rec=1&srcabs=294828); Starodoumov, *supra* note 25; Castronova, *Cost-Benefit Analysis*, *supra* note 19; Jun-Sok Huhh, Economic Analysis on Online Game Service (Feb. 5, 2009) (unpublished comment, on file with the Seoul National University School of Economics), available at [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=1335120](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1335120).

<sup>28</sup> Castronova, *Virtual Worlds*, *supra* note 21, at 8–9.

<sup>29</sup> *Id.* at 15.

<sup>30</sup> *Id.* at 23.

<sup>31</sup> *Id.*

<sup>32</sup> *Id.* at 8.

<sup>33</sup> Castronova, *On Virtual Economies*, *supra* note 27, at 24–27.

to produce a world big enough to monopolize the market.<sup>34</sup> Second, he argues that congestion tends away from monopoly, the reduction of which can only be accomplished through the addition of more content.<sup>35</sup> Yet, Castronova notes that “[i]n every game currently on the market, the owners consider it their right to introduce changes to game mechanics at any time, without prior consultation with the players,” leading to the possibility of accounts being terminated and thus losing market value overnight.<sup>36</sup> He argues that player protest and exits are powerful resistance options, however, we are yet to see a widespread change in policy, and the subscription base of virtual worlds has only increased.<sup>37</sup> It is the argument of this paper that the prohibitive switching costs and the developer’s control over the game’s content, particularly its ability to increase or decrease in-game items, leads to the potential for antitrust liability.

The introduction of RMT leads to a common quandary: While such transactions arguably improve the well-being of both parties and increase their enjoyment of the game, it can ruin “the ambience of the game world.”<sup>38</sup> Yet, the policies set forth by virtual worlds regarding RMT have universally been imposed “on the people rather than *with* the people.”<sup>39</sup> Given the closed nature of individual worlds, the basic priceable input for asset growth is time.<sup>40</sup> The challenge level of any virtual world depends on the assets and characteristics the player has or is in progress of attaining, but the challenge level offered by game designers will not be equal to the ideal challenge level of one or more players.<sup>41</sup> When discrepancies are sufficiently high between the designers’ challenge level and the ideal challenge level, the player’s satisfaction will be so low that he will be tempted to increase his assets to change the game’s challenge level.<sup>42</sup> Because of the virtual world’s limitations, the player will price the virtual assets needed for the higher game satisfaction in real world currency.<sup>43</sup> Several reasons have been argued for why RMT is detrimental and produces external welfare losses, but the economic impact is nominal.<sup>44</sup> Castronova points out, however, that a one percent increase in RMT would only have a 1/20th of one percent impact on the demand

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<sup>34</sup> *Id.* at 25. It is interesting to note that Castronova’s possibility for increased production (“opening your game code to the public”) is precisely the model of virtual worlds like Second Life.

<sup>35</sup> *Id.* at 25–26. A third argument is his claim that the huge switching costs between worlds should lead to competitors offering new players the opportunity to start their avatars at a higher level of wealth and ability if they can provide evidence of a high level in another game. *Id.* at 26. As Castronova argues, “[B]y not offering this kind of monetary opt-in, the companies implicitly encourage the buying and selling of avatars outside the game.” *Id.* Of course, the existence of countless EULAs prohibiting such trade seems to indicate otherwise.

<sup>36</sup> *Id.* at 33.

<sup>37</sup> *Id.*, at 35.

<sup>38</sup> *Id.* at 34.

<sup>39</sup> Castronova, *On Virtual Economies*, *supra* note 27, at 34.

<sup>40</sup> Starodoumov, *supra* note 25, at 31.

<sup>41</sup> *Id.* at 32.

<sup>42</sup> *Id.* at 33.

<sup>43</sup> *Id.*

<sup>44</sup> Castronova, *Cost-Benefit Analysis*, *supra* note 19, at 15–19. Castronova sets forth five reasons: (1) disrupts the game’s fantasy atmosphere; (2) causes inflation; (3) encourages misuse of the game’s resources; (4) encourages misuse of game’s communication systems; and (5) leads to high customer service costs. *Id.*

for subscriptions, and a 1/20th of one percent impact on customer service costs.<sup>45</sup>

#### IV. TYING ARRANGEMENTS

The Supreme Court has defined a tying arrangement as “an agreement by a party to sell one product but only on the condition that the buyer also purchases a different (or tied) product, or at least agrees that he [or she] will not purchase that product from any other supplier.”<sup>46</sup> Historically, courts have held that tying arrangements serve “hardly any purpose beyond the suppression of competition,”<sup>47</sup> and are *per se* unreasonable “whenever a party has sufficient economic power with respect to the tying product to appreciably restrain free competition in the market for the tied product and a ‘not insubstantial’ amount of interstate commerce is affected.”<sup>48</sup> However, the Court has made clear that “every refusal to sell two products separately cannot be said to restrain competition.”<sup>49</sup> If each of the products may be purchased separately in a competitive market, one seller’s decision to sell the two products together imposes no unreasonable restraint on either market, particularly if competing suppliers are free to sell either the entire package or its several parts.<sup>50</sup> It follows that virtual worlds which ban real-money trading may be involved in tying arrangements; by enforcing this ban, they are effectively preventing competing suppliers from freely selling in-game products.<sup>51</sup>

Courts have concluded:

[T]he essential characteristic of an invalid tying arrangement lies in the seller’s exploitation of its control over the tying product to force the buyer into the purchase of a tied product that the buyer either did not want at all, or might have preferred to purchase elsewhere on different terms.<sup>52</sup>

Thus, when such “forcing” is present, competition on the merits in the market for the tied item is restrained and a Sherman Act violation exists.<sup>53</sup> Accordingly, courts will condemn tying arrangements “when the seller has some special ability—usually called ‘market power’—to force a purchaser to do something that he would not do in a competitive market.”<sup>54</sup> From the consumer’s

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<sup>45</sup> *Id.* at 31–32.

<sup>46</sup> *N. Pac. Ry. Co. v. United States*, 356 U.S. 1, 5–6 (1958).

<sup>47</sup> *Standard Oil Co. of Cal. v. United States*, 337 U.S. 293, 305 (1949).

<sup>48</sup> *N. Pac. Ry.*, 356 U.S. at 6.

<sup>49</sup> *Jefferson Parish Hosp. Dist. No. 2 v. Hyde*, 466 U.S. 2, 11 (1984).

<sup>50</sup> *Id.* at 11–12; *see N. Pac. Ry.*, 356 U.S. at 6 n.4 (explaining that “where the buyer is free to take either product by itself there is no tying problem even though the seller may also offer the two items as a unit at a single price”).

<sup>51</sup> *See, e.g., Jefferson Parish*, 466 U.S. at 11–12; *N. Pac. Ry.*, 356 U.S. at 6 n.4. Though not the focus of this article, the use of third-party software (or “bots”) would also arguably implicate the same antitrust issues.

<sup>52</sup> *Jefferson Parish*, 466 U.S. at 12.

<sup>53</sup> *Id.* at 12–13; *see Times-Picayune Publ’g Co. v. United States*, 345 U.S. 594, 605 (1953) (“By conditioning his sale of one commodity on the purchase of another, a seller coerces the abdication of buyers’ independent judgment as to the ‘tied’ product’s merits and insulates it from the competitive stresses of the open market.”).

<sup>54</sup> *Jefferson Parish*, 466 U.S. at 13–14; *see Eastman Kodak Co. v. Image Technical Servs., Inc.*, 504

standpoint, the freedom to select the best bargain in the second market is impaired by his [or her] need to purchase the tying product from, and by an inability to evaluate the true cost of either product when they are available only as a package, something the Supreme Court has defined as “lifecyle pricing.”<sup>55</sup> It is this question of market power that would likely pose one of the more difficult problems in enforcing a claim of an invalid tying arrangement when it comes to virtual worlds. This question is particularly important because when the seller does possess such market power, an antitrust violation can be established “only by evidence of an unreasonable restraint on competition in the relevant market.”<sup>56</sup> The virtual world developer would likely claim that a single virtual world has little market power on its own, and its activities are thus disciplined by competition with other developers. While persuasive, the Supreme Court’s opinion in *Eastman Kodak Co. v. Image Technical Services, Inc.* provides a convincing response to this argument.

Thus, as the *Jefferson Parish* court held, “[a]ny inquiry into the validity of a tying arrangement must focus on the market or markets in which the two products are sold, for that is where the anticompetitive forcing has its impact.”<sup>57</sup> This issue involves consideration of first whether petitioners are in fact selling two separate products that may be tied together, and if so, whether they have used their market power to force their customers to accept the tying arrangement.<sup>58</sup> This analysis leads to another potential issue in the virtual world industry: Are the virtual world and the in-game products separate and distinct, or are the products identical and the market the same?<sup>59</sup> Once we closely examine the economic aspects as well as the relevant case law, we see that this issue is easily addressed, and the virtual world is indeed distinct and separate from its in-game products.

## V. MARKET POWER

Early tying cases involved patent infringement suits and initially embraced Chief Justice White’s dissent in *Henry v. A.B. Dick & Co.*,<sup>60</sup> holding that a patent or similar monopoly presumptively confers market power upon the seller.<sup>61</sup> Over the years, however, the Court’s strong disapproval of tying arrangements

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U.S. 451, 477–78 (1992); *United States Steel Corp. v. Fortner Enters. (Fortner II)*, 429 U.S. 610, 620 (1977); *Fortner Enters. v. United States Steel Corp. (Fortner I)*, 394 U.S. 495, 517–18 (1969); *United States v. Loew’s, Inc.*, 371 U.S. 38, 45, 48 n.5 (1962); *N. Pac. Ry.*, 356 U.S. at 6–7.

<sup>55</sup> *Jefferson Parish*, 466 U.S. at 15; *Eastman Kodak*, 504 U.S. at 473–74 (“For the service-market price to affect equipment demand, consumers must inform themselves of the total cost of the ‘package’ . . . at the time of purchase; that is, consumers must engage in accurate lifecyle pricing.”); see also *Jefferson Parish*, 466 U.S. at 15, n. 24 (“Especially where market imperfections exist, purchasers may not be fully sensitive to the price or quality implications of a tying arrangement, and hence it may impede competition on the merits.”) (quoting Richard Craswell, *Tying Requirements in Competitive Markets: The Consumer Protection Issues*, 62 B.U. L. REV. 661 (1982)).

<sup>56</sup> *Jefferson Parish*, 466 U.S. at 17–18.

<sup>57</sup> *Id.* at 18.

<sup>58</sup> *Id.*

<sup>59</sup> See *id.* at 19–20; *Times-Picayune Publ’g Co. v. United States*, 345 U.S. 594, 613–14 (1953).

<sup>60</sup> 224 U.S. 1, 70 (1912).

<sup>61</sup> See, e.g., *Jefferson Parish*, 466 U.S. at 16; *United States v. Loew’s, Inc.*, 371 U.S. 38, 45–47 (1962); *Int’l Salt Co. v. United States*, 332 U.S. 392, 396 (1947).



diminished, and rather than relying on assumptions, the Court shifted toward requiring a showing of market power in the tying product.<sup>62</sup> Eventually, Congress amended the Patent Code to eliminate the presumption in the patent misuse context.<sup>63</sup> In 2006, the Supreme Court effectively killed the patent presumption, holding that “in all cases involving a tying arrangement, the plaintiff must prove that the defendant has market power in the tying product.”<sup>64</sup> Perhaps most relevant to the realm of virtual worlds is the Justice Department and the Federal Trade Commission’s 1995 joint statement that they “will not presume that a patent, *copyright*, or trade secret necessarily confers market power upon its owner.”<sup>65</sup> Thus, for a tying arrangement case to succeed against a virtual world, the developer’s copyright alone is insufficient to establish market power; the plaintiff must present proof of power in the relevant market.<sup>66</sup> The Supreme Court has held market power to be the power “to force a purchaser to do something that he would not do in a competitive market.”<sup>67</sup> It has been further defined as “the ability of a single seller to raise price and restrict output.”<sup>68</sup>

A helpful place to start the study of market power in virtual worlds is the case of *Northern Pacific Railway Co. v. United States*.<sup>69</sup> In 1864 and 1870, Congress granted Northern Pacific Railway’s predecessor (“Railroad”) approximately 40 million acres of land to facilitate its construction of a railroad from Lake Superior to Puget Sound.<sup>70</sup> By 1949, the Railroad had sold about 37 million acres of its holdings, but had reserved mineral rights in 6.5 million of those acres.<sup>71</sup> In many of its sales contracts, and in most of its lease agreements, the Railroad had inserted “preferential routing” clauses which compelled the purchaser or lessee “to ship over its lines all commodities produced or manufactured on the land, provided that its rates (and in some instances its service) were equal to those of competing carriers.”<sup>72</sup> Justice Hugo Black, writing for the majority, held that the Railroad “possessed substantial economic power by virtue of its extensive landholdings which it used as leverage to induce large numbers of purchasers and lessees to give it preference, to the exclusion of its competitors.”<sup>73</sup> The Court further noted that the “vice of tying arrangements lies in the use of economic power in one market to restrict competition on the merits in another, regardless of the source from which the power is derived and whether the power takes the form

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<sup>62</sup> Compare *Standard Oil Co. of Cal. v. United States*, 337 U.S. 293, 305–06 (1949), with *Fortner II*, 429 U.S. 610, 620 (1977).

<sup>63</sup> 35 U.S.C. § 271(d)(5) (2006).

<sup>64</sup> See *Ill. Tool Works Inc. v. Indep. Ink, Inc.*, 547 U.S. 28, 45–46 (2006).

<sup>65</sup> U.S. Dep’t of Justice & FTC, *Antitrust Guidelines for the Licensing of Intellectual Property* § 2.2 (Apr. 6, 1995), <http://www.usdoj.gov/atr/public/guidelines/0558.pdf>.

<sup>66</sup> See *Ill. Tool*, 547 U.S. at 42–43.

<sup>67</sup> *Eastman Kodak Co. v. Image Technical Servs., Inc.*, 504 U.S. 451, 464 (1992) (quoting *Jefferson Parish Hosp. Dist. No. 2 v. Hyde*, 466 U.S. 2, 14 (1984)).

<sup>68</sup> *Eastman Kodak*, 504 U.S. at 464 (quoting *Fortner I*, 394 U.S. 495, 503 (1969)).

<sup>69</sup> 356 U.S. 1 (1958).

<sup>70</sup> *Id.* at 2–3.

<sup>71</sup> *Id.* at 3.

<sup>72</sup> *Id.*

<sup>73</sup> *Id.* at 7.

of a monopoly or not.”<sup>74</sup>

When we analogize to virtual worlds, it is easy to see that much of the Court’s concern is present. One can hardly dispute the fact that many virtual worlds possess extensive landholdings, as well as the ability to increase or decrease in-game content, which it can use as leverage over its users to give it preference when it comes to purchasing in-game products.<sup>75</sup> While the developer would certainly argue that it does not require any user to affirmatively purchase any particular in-game product, by preventing a user from purchasing an in-game product from a third party, it is forcing the user to take the extra time, and thus pay additional subscription costs, needed to raise the necessary amount of in-game currency, something he or she would not necessarily do “in a competitive market.”<sup>76</sup> In doing so, the virtual world developer possesses both the ability to raise price and restrict output.<sup>77</sup>

The Supreme Court’s opinion in *Eastman Kodak* provides further support for the notion that virtual worlds may have sufficient market power to implicate the Sherman Act’s section 1 prohibition against tying arrangements.<sup>78</sup> In the *Eastman Kodak* case, the principal issue was whether a defendant’s lack of market power in the primary market precluded, as a matter of law, the possibility of market power in derivative aftermarkets.<sup>79</sup> After easily holding that plaintiffs had established a tie through Kodak’s policy of selling parts to third parties only if they agreed not to buy service from independent service organizations, the Court moved to the more difficult question of market power.<sup>80</sup> Kodak argued that even if it conceded monopoly share of the relevant parts market, it could not actually exercise the necessary market power for a section 1 violation because competition existed in the equipment market.<sup>81</sup> Thus, Kodak argued that it could not “raise prices of service and parts above the level that would be charged in a competitive market because any increase in profits from a higher price in the aftermarkets would be offset by a corresponding loss in profits from lower equipment sales.”<sup>82</sup> The Court refused to accept Kodak’s argument because it did not “accurately explain the behavior of the primary and derivative markets for complex durable goods: *the existence of significant information and switching costs.*”<sup>83</sup>

The Court first focused on the fact that “[f]or the service-market price to affect equipment demand, consumers must inform themselves of the total cost of the ‘package’—equipment, service, and parts—at the time of purchase; that is consumers must engage in accurate lifecycle pricing.”<sup>84</sup> To do so, the customer

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<sup>74</sup> *N. Pac. Ry.*, 356 U.S. at 11.

<sup>75</sup> *Id.*

<sup>76</sup> See *Eastman Kodak Co. v. Image Technical Servs., Inc.*, 504 U.S. 451, 464 (1992) (quoting *Jefferson Parish Hosp. Dist. No. 2 v. Hyde*, 466 U.S. 2, 14 (1984)).

<sup>77</sup> See *Eastman Kodak*, 504 U.S. at 464 (quoting *Fortner I*, 394 U.S. 495, 503 (1969)).

<sup>78</sup> *Id.* at 451.

<sup>79</sup> *Id.* at 454–55.

<sup>80</sup> *Id.* at 463–64.

<sup>81</sup> *Id.* at 465.

<sup>82</sup> *Id.* at 466.

<sup>83</sup> *Eastman Kodak Co. v. Image Technical Servs., Inc.*, 504 U.S. 451, 473 (1992) (emphasis added).

<sup>84</sup> *Id.*

must acquire and digest a substantial amount of information, including “data on price, quality, and availability of products needed to operate, upgrade, or enhance the initial equipment, as well as service and repair costs, including estimates of breakdown frequency, nature of repairs, price of service and parts, length of ‘downtime,’ and losses incurred from downtime.”<sup>85</sup> Because of the potentially high cost of acquiring such information, and the possibility of price discrimination between sophisticated and unsophisticated consumers, the Court explained that “it ma[de] little sense to assume . . . that equipment-purchasing decisions are based on an accurate assessment of the total cost of equipment, service, and parts over the lifetime of the machine.”<sup>86</sup>

When we apply the lifecycle analysis to virtual worlds, we see an even stronger case for the existence of market power on behalf of the developer. It is nearly impossible for consumers to completely inform themselves of the total cost of the virtual world “package” at the time of subscription.<sup>87</sup> To do so, the user would have to acquire and digest information, such as price information for the world (and potential competitors), availability of in-game products needed to operate, upgrade, or enhance the experience, any additional subscription costs, the time required to acquire in-game products, and any potential changes the world may make during the life of the virtual world.<sup>88</sup> Because of the potentially high cost of acquiring such information, the possibility of price discrimination between sophisticated and unsophisticated consumers, and the inability of consumers to predict future changes to the virtual world, it is hard to see how users could engage in effective lifecycle pricing.<sup>89</sup>

A second factor the Court considered was the cost to current owners of switching to a different product.<sup>90</sup> The Court noted that “[i]f the cost of switching is high, consumers who have already purchased the equipment, and are thus ‘locked in,’ will tolerate some level of service-price increases before changing equipment brands.”<sup>91</sup> Additionally, where the seller can price discriminate between its locked-in customers and potential new customers, “this strategy is even more likely to prove profitable,” because a seller “could simply charge new customers below-marginal cost on the equipment and recoup the charges in service.”<sup>92</sup> This switching cost analysis is particularly relevant to virtual worlds. Any regular virtual world user would argue that the cost of switching virtual worlds is prohibitively high.<sup>93</sup> Not only are in-game items of no use in other virtual worlds, the added social elements unique to each virtual world make it

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<sup>85</sup> *Id.* Additionally, “a consumer would need initial purchase information such as prices, features, quality, and available warranties for different machinery with different capabilities, and residual value information such as the longevity of product use and its potential resale or trade-in value.” *Id.*

<sup>86</sup> *Id.* at 475–76.

<sup>87</sup> *See id.*

<sup>88</sup> *See id.* at 475–76.

<sup>89</sup> *See Eastman Kodak Co. v. Image Technical Servs., Inc.*, 504 U.S. 451, 475–76 (1992).

<sup>90</sup> *Id.* at 476.

<sup>91</sup> *Id.*

<sup>92</sup> *Id.* at 476–77.

<sup>93</sup> *See Castronova, Virtual Worlds*, *supra* note 21, at 8.

undesirable to switch to a different world.<sup>94</sup> Furthermore, virtual worlds often engage in price discrimination among existing users and new users. Second Life, for example, initially taxed its residents per object they created, but eventually shifted to a property-based economy, establishing a \$9.95 per month fee for those who wanted to own land.<sup>95</sup> It is very likely that a court could infer that a virtual world has sufficient market power to raise prices and drive out competition in the aftermarkets.<sup>96</sup> Indeed, it is just as plausible that a virtual world could choose to gain immediate profits by exerting such market power where locked-in customers, high information costs, and discriminatory pricing exist.<sup>97</sup>

## VI. DISTINCT AND SEPARATE PRODUCTS

Another issue that must be addressed when determining whether or not a tying arrangement exists in a virtual world is whether the tying and tied products are indeed separate and distinct products.<sup>98</sup> The *Jefferson Parish* court explained that “the answer to the question whether one or two products are involved turns not on the functional relation between them, but rather on the character of the demand for the two items.”<sup>99</sup> The Court stresses the fact that a functional link is not in itself sufficient to reject a tying arrangement claim, noting that the Court “has often found arrangements involving functionally linked products at least one of which is useless without the other to be prohibited tying devices.”<sup>100</sup> The question, thus, is whether there is a possibility that the economic effect of the arrangement is that a defendant has foreclosed competition on the merits in a product market distinct from the market for the tying item.<sup>101</sup>

In *Jefferson Parish*, the alleged tying arrangement involved the hospital’s contract providing that all anesthesiological services required by its patients would be performed by one particular group.<sup>102</sup> The Court determined that no tying arrangement could exist unless there existed “a sufficient demand for the purchase of anesthesiological services separate from the hospital services to identify a

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<sup>94</sup> *Id.*

<sup>95</sup> TOM BOELLSTORFF, *COMING OF AGE IN SECOND LIFE* 216 (2008).

<sup>96</sup> *See Eastman Kodak*, 504 U.S. at 477.

<sup>97</sup> *See id.*

<sup>98</sup> *See, e.g., Jefferson Parish Hosp. Dist. No. 2 v. Hyde*, 466 U.S. 2, 19–20 (1984); *Times-Picayune Publ’g Co. v. United States*, 345 U.S. 594, 613–14 (1953); *see also Krehl v. Baskin-Robbins Ice Cream Co.*, 664 F.2d 1348, 1352 (9th Cir. 1982) (holding Baskin-Robbins’ trademark to be separate from the ice cream it represents).

<sup>99</sup> *Jefferson Parish*, 466 U.S. at 19.

<sup>100</sup> *Id.* at 19 n.30 (citing *Mercoid Corp. v. Mid-Continent Co.*, 320 U.S. 661 (1944) (heating system and stoker switch); *Morton Salt Co. v. Suppiger Co.*, 314 U.S. 488 (1942) (salt machine and salt); *Int’l Salt Co. v. United States*, 332 U.S. 392 (1947) (salt machine and salt); *Leitch Mfg. Co. v. Barber Co.*, 302 U.S. 458 (1938) (process patent and material used in the patented process); *IBM Corp. v. United States*, 298 U.S. 131 (1936) (computer and computer punch cards); *Carbice Corp. v. Am. Patents Corp.*, 283 U.S. 27 (1931) (ice cream transportation package and coolant); *FTC v. Sinclair Ref. Co.*, 261 U.S. 463 (1923) (gasoline and underground tanks and pumps); *United Shoe Mach. Co. v. United States*, 258 U.S. 451 (1921) (shoe machinery and supplies, maintenance, and peripheral machinery); *United States v. Jerrold Elecs. Corp.*, 187 F. Supp. 545 (E.D. Pa. 1960) (components of television antennas)).

<sup>101</sup> *Id.* at 21.

<sup>102</sup> *Id.* at 5.

distinct product market in which it is efficient to offer anesthesiological services separately from hospital services.”<sup>103</sup> The Court held that the anesthesiological services could have been provided separately and could have been selected either by the individual patient or by one of the patient’s doctors if the hospital did not insist on the tying arrangement.<sup>104</sup> Furthermore, the Court held that consumers “differentiate between anesthesiological services and the other hospital services provided by [the hospital].”<sup>105</sup>

When we apply this analysis to virtual worlds, we see that a subscription to a virtual world is separate and distinct from in-game items. Though these products are functionally linked, the economic effect of a ban on real money trading is that the virtual world will foreclose competition on the merits in a product market distinct from the market for the virtual world itself.<sup>106</sup> Also, there is unquestionably a sufficient demand for the purchase of in-game items separate from the virtual world to identify a distinct product market in which it is efficient to offer in-game items separately from a virtual world subscription.<sup>107</sup> Indeed, many users who are willing to purchase in-game items from third parties do so because it is quicker and easier than playing the game long enough to obtain the items.<sup>108</sup>

The Supreme Court has held that if a firm has been “attempting to exclude rivals on some basis other than efficiency, it is fair to characterize its behavior as predatory,” and thus exclusionary.<sup>109</sup> The existence of third party in-game item dealers may increase the demand for the virtual world itself. By allowing a separate market for in-game items, a virtual world may be able to attract subscribers to its site that may not have been willing to do so given the perceived time commitment of acquiring valuable items.<sup>110</sup> Indeed, when viewed in light of the market power each individual world possesses, the tying arrangement seems not only invalid, but counterproductive.

## VII. MONOPOLIZATION

The Supreme Court has held:

The offense of monopoly under [section] 2 of the Sherman Act has two elements: (1) the possession of monopoly power in the relevant market and (2) the willful acquisition or maintenance of that power as distinguished from growth or development as a consequence of a superior product,

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<sup>103</sup> *Id.* at 21–22.

<sup>104</sup> *Id.* at 22.

<sup>105</sup> *Jefferson Parish Hosp. Dist. No. 2 v. Hyde*, 466 U.S. 2, 23 (1984).

<sup>106</sup> *See id.* at 21.

<sup>107</sup> *See id.* at 21–22.

<sup>108</sup> *See* DIBBELL, *supra* note 23, at 11–12.

<sup>109</sup> *See* *Aspen Skiing Co. v. Aspen Highlands Skiing Corp.*, 472 U.S. 585, 605 (1985) (internal quotations and citations omitted). Such evidence also constitutes proof of specific intent for purposes of a section 2 claim of attempt to monopolize. *See id.* at 608 n.33.

<sup>110</sup> *See* Starodoumov, *supra* note 25, at 33.

business acumen, or historic accident.<sup>111</sup>

The Court has defined monopoly power as “the power to control prices or exclude competition.”<sup>112</sup> Furthermore, the existence of such power “may be inferred from the predominant share of the market.”<sup>113</sup> Important indicators of monopoly power include the defendant’s market share (often expressed as a percentage) and any barriers to entry.<sup>114</sup> As discussed, virtual worlds arguably have substantial market power and often possess the power to control prices or exclude competition. The more important, and concededly more difficult, question to answer in this context is the question of defining the relevant market.<sup>115</sup> Such a determination can be determined only after a factual inquiry into the “commercial realities” faced by consumers.<sup>116</sup>

The Supreme Court in *United States v. E.I. du Pont de Nemours & Co.* held that the ultimate question is “whether the defendants control the price and competition in the market for such part of trade or commerce as they are charged with monopolizing.”<sup>117</sup> Of course, every manufacturer is the sole producer of the particular commodity it makes, so its control depends upon the availability of alternative commodities for buyers, i.e., whether cross-elasticity of demand exists.<sup>118</sup> One way to determine the presence of cross-elasticity of demand is to examine the responsiveness of sales of one product to price changes of the other.<sup>119</sup> As the *E.I. du Pont* court held, “[d]etermination of the competitive market for commodities depends on how different from one another are the offered commodities in character or use, how far buyers will go to substitute one commodity for another.”<sup>120</sup> When a product is controlled by one interest, without substitutes available in the market, there is monopoly power.<sup>121</sup> However, when there are market alternatives that buyers may readily use for their purposes, “illegal monopoly does not exist merely because the product said to be monopolized differs from others.”<sup>122</sup> Thus, commodities reasonably interchangeable by consumers for the same purpose make up the relevant market.<sup>123</sup>

Applying the *E.I. du Pont* analysis to virtual worlds leads to the ultimate conclusion that the relevant market for a particular virtual world is the virtual world itself. Indeed, the Supreme Court has held on several occasions that “in

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<sup>111</sup> *Eastman Kodak Co. v. Image Technical Servs., Inc.*, 504 U.S. 451, 480 (1992) (citing *United States v. Grinnell Corp.*, 384 U.S. 563, 570–71 (1966)).

<sup>112</sup> *United States v. E.I. du Pont de Nemours & Co.*, 351 U.S. 377, 391 (1956).

<sup>113</sup> *Grinnell*, 384 U.S. at 571.

<sup>114</sup> See generally 1 ABA SECTION OF ANTITRUST LAW, ANTITRUST LAW DEVELOPMENTS 229–40 (6th ed. 2007).

<sup>115</sup> *Grinnell*, 384 U.S. at 571.

<sup>116</sup> *Eastman Kodak*, 504 U.S. at 482 (quoting *Grinnell*, 384 U.S. at 572).

<sup>117</sup> *E.I. du Pont*, 351 U.S. at 380.

<sup>118</sup> *Id.*

<sup>119</sup> *Id.*

<sup>120</sup> *Id.* at 393.

<sup>121</sup> *Id.* at 394.

<sup>122</sup> *Id.* at 380.

<sup>123</sup> *United States v. E.I. du Pont de Nemours & Co.*, 351 U.S. 377, 395 (1956).

some instances one brand of a product can constitute a separate market.”<sup>124</sup> Conducting a cross-elasticity of demand analysis would show no responsiveness of sales of one virtual world to price changes of another.<sup>125</sup> For example, a slight decrease in the subscription price of Second Life would not cause a considerable number of World of Warcraft users to suddenly switch to Second Life.<sup>126</sup> The two virtual worlds are quite different from one another in terms of character or use, and buyers will not substitute one virtual world for another for the various market power reasons previously described.<sup>127</sup> There are no market alternatives that users may readily use for their purposes, the two worlds are not reasonably interchangeable by consumers for the same purpose, and thus each individual virtual world would make up the relevant market for monopoly power analysis.<sup>128</sup> Indeed, one trial court has recently found some virtual worlds not to be interchangeable in a decision finding Second Life’s Terms of Service to be a contract of adhesion.<sup>129</sup> In *Bragg v. Linden Research*, the United States District Court for the Eastern District of Pennsylvania found there to be “no reasonably available market alternatives [to defeat] a claim of adhesiveness.”<sup>130</sup> The court noted that “[a]lthough it is not the only virtual world on the Internet, Second Life was the first and only virtual world to specifically grant its participants property rights in virtual land.”<sup>131</sup>

The second element of a section 2 claim is the use of monopoly power “to foreclose competition, to gain a competitive advantage, or to destroy a competitor.”<sup>132</sup> While the desire to maintain or increase one’s market share is not in itself an antitrust violation, a monopolist must take care that otherwise lawful acts do not have anticompetitive effects because of their monopoly power.<sup>133</sup> If a defendant has taken exclusionary action, such as the tying arrangement previously described, to maintain its monopoly and used its control to strengthen its monopoly share, “liability turns, then, on whether ‘valid business reasons’ can explain” the defendant’s actions.<sup>134</sup>

The *Eastman Kodak* case provides some helpful examples of the kind of valid business reasons the Court finds to be potentially questionable.<sup>135</sup> Kodak first argued that by preventing customers from using independent service organizations (“ISO”), “it [could] best maintain high quality service for its

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<sup>124</sup> *Eastman Kodak Co. v. Image Technical Servs., Inc.*, 504 U.S. 451, 482 (1992); see *Nat’l Collegiate Athletic Ass’n v. Bd. of Regents*, 468 U.S. 85, 101–02 (1984); *Int’l Boxing Club of N.Y., Inc. v. United States*, 358 U.S. 242, 249–52 (1959); *IBM Corp. v. United States*, 298 U.S. 131 (1936).

<sup>125</sup> See *E.I. du Pont*, 351 U.S. at 400.

<sup>126</sup> See *id.* at 400.

<sup>127</sup> See *id.* at 393.

<sup>128</sup> See *id.* at 393–95.

<sup>129</sup> See *Bragg v. Linden Research, Inc.*, 487 F. Supp. 2d 593, 606 (E.D. Pa. 2007).

<sup>130</sup> *Id.* (internal quotations omitted).

<sup>131</sup> *Id.*

<sup>132</sup> *Eastman Kodak Co. v. Image Technical Servs., Inc.*, 504 U.S. 451, 482–83 (1992) (quoting *United States v. Griffith*, 334 U.S. 100, 107 (1948)).

<sup>133</sup> *Oahu Gas Serv., Inc. v. Pac. Res. Inc.*, 838 F.2d 360, 368 (9th Cir. 1988).

<sup>134</sup> *Eastman Kodak*, 504 U.S. at 483 (quoting *Alcoa*, 148 F.2d 416, 432 (2d Cir. 1945)).

<sup>135</sup> *Id.*

sophisticated equipment” and avoid being “blamed for an equipment malfunction.”<sup>136</sup> The Court refused to grant summary judgment because the ISOs were able to offer evidence that they not only provided quality service, but also that their service was “preferred by some Kodak equipment owners.”<sup>137</sup> The Court also argued that this claim did not mesh with the lifecycle issue, noting that “Kodak simultaneously claims that its customers are sophisticated enough to make complex and subtle lifecycle-pricing decisions, and yet too obtuse to distinguish which breakdowns are due to bad equipment and which are due to bad service.”<sup>138</sup>

Second, Kodak claimed that the exclusionary actions were valid because they improved asset management by reducing Kodak’s inventory costs.<sup>139</sup> The Court took issue with this justification as well, noting that “the inventory of parts needed to repair Kodak machines turns only on breakdown rates, and those rates should be the same whether Kodak or ISO’s [sic] perform the repair.”<sup>140</sup> Also, this justification fails to explain the fact that Kodak “forced [original equipment manufacturers], equipment owners, and parts brokers not to sell parts to ISO’s [sic], actions that would have no effect on Kodak’s inventory costs.”<sup>141</sup>

Lastly, Kodak claimed that its policies prevented ISOs from “exploit[ing] the investment Kodak has made in product development, manufacturing and equipment sales in order to take away Kodak’s service revenues.”<sup>142</sup> The Court denied summary judgment here as well, noting that “one of the evils proscribed by the antitrust laws is the creation of entry barriers to potential competitors by requiring them to enter two markets simultaneously.”<sup>143</sup>

When we apply this analysis to virtual worlds, we can see how many of the potential justifications a virtual world developer would likely propose for its exclusionary conduct with respect to the proposition that RMT should not constitute a valid business reason.<sup>144</sup> A developer would likely argue that there is a concern about maintaining the quality of in-game items because users may not be able to tell which avatars have achieved their status through legitimate in-game success or through third-party means, or even which avatars are actual people or automated bots. It follows, arguably, that preventing RMT would limit the amount of inconsistency and uncertainty for players, thus increasing the overall satisfaction of players.<sup>145</sup> However, as in *Eastman Kodak*, RMT traders would counter with evidence that their service was preferred by many virtual world subscribers.<sup>146</sup> Again, the same lifecycle issue would arise, as previously discussed, because it is nearly impossible for consumers to completely inform themselves of the total cost

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<sup>136</sup> *Id.*

<sup>137</sup> *Id.* at 483–84.

<sup>138</sup> *Id.*

<sup>139</sup> *Id.* at 483.

<sup>140</sup> *Eastman Kodak Co. v. Image Technical Servs., Inc.*, 504 U.S. 451, 484–85 (1992).

<sup>141</sup> *Id.* at 485.

<sup>142</sup> *Id.*

<sup>143</sup> *Id.* For free-riding to be applicable in *Eastman Kodak*, the Court noted that “the ISO’s [sic] would have to be relying on Kodak’s investment in the service market.” *Id.* at 485 n.33.

<sup>144</sup> *See id.* at 483–85.

<sup>145</sup> *See Castronova, Cost-Benefit Analysis, supra* note 19, at 7.

<sup>146</sup> *See Eastman Kodak*, 504 U.S. at 483–84.



of the virtual world “package” at the time of subscription.<sup>147</sup>

Another proposed valid business reason set forth by virtual worlds would likely be that preventing RMT is valid because it reduces inventory costs and tempers in-game inflation.<sup>148</sup> A court could easily disregard this justification as well because the inventory of in-game items, as well as in-game currency, is ultimately in the control of the developer. Should a developer need to control inventory costs or inflation, they can do so simply through in-game coding.<sup>149</sup> Also, as in *Eastman Kodak*, these justifications would fail to explain why a developer would prohibit in-game product owners (i.e., users) from selling to real money traders or brokers because such actions would have no effect on the developer’s inventory costs.<sup>150</sup> Finally, a developer’s claim that such policies prevent real money traders from exploiting the investment the developer has made in product development, manufacturing, and sales in order to take away its in-game trade revenues would likely fail. Such prohibitions would constitute entry barriers to potential competitors by requiring them to enter two markets simultaneously, something antitrust law explicitly proscribes.<sup>151</sup>

The Supreme Court has also found actions which forgo short-run benefits in the interest of reducing competition over the long run to be invalid business justifications.<sup>152</sup> In *Aspen Skiing Co. v. Aspen Highlands Skiing Corp.*, the Court held that a monopoly, which made a deliberate effort to discourage its customers from doing business with its smaller rival, was “motivated entirely by a decision to avoid providing any benefit to [its rival] even though . . . [it] would have entailed no cost to [defendant] itself, would have provided it with immediate benefits, and would have satisfied its potential customers.”<sup>153</sup> The Court further noted that the defendant “was not motivated by efficiency concerns and that it was willing to sacrifice short-run benefits and consumer goodwill in exchange for a perceived long-run impact on its smaller rival.”<sup>154</sup> This is the same motivation that drives virtual worlds’ prohibition against RMT. And, as discussed previously, such actions are not motivated by efficiency concerns.

### VIII. APPLICATION OF SECTION 3 OF THE CLAYTON ACT

Section 3 of the Clayton Act may also provide some interesting analysis of virtual worlds.<sup>155</sup> A tying arrangement can violate section 3 of the Clayton Act as

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<sup>147</sup> See *id.* at 473.

<sup>148</sup> See Castronova, *Cost-Benefit Analysis*, *supra* note 19, at 15.

<sup>149</sup> See DIBBELL, *supra* note 23, at 48.

<sup>150</sup> *Eastman Kodak*, 504 U.S. at 485.

<sup>151</sup> *Id.*

<sup>152</sup> See *Aspen Skiing Co. v. Aspen Highlands Skiing Corp.*, 472 U.S. 585, 608 (1985).

<sup>153</sup> *Id.* at 610–11.

<sup>154</sup> *Id.*

<sup>155</sup> Section 3 of the Clayton Act provides:

It shall be unlawful for any person engaged in commerce, in the course of such commerce, to lease or make a sale or contract for sale of goods, wares, merchandise, machinery, supplies, or other commodities, whether patented or unpatented, for use, consumption, or resale within the United States . . . on the

well as section 1 of the Sherman Act, but the Clayton Act is violated only when products are tied to other products, not services.<sup>156</sup> Because the term “commodity” is not defined in section 3, courts have adopted its natural context (“goods, wares, merchandise, machinery, supplies or other commodities”) and defined it as “some type of tangible property that may be leased or sold.”<sup>157</sup> This definition is arguably problematic for application to virtual worlds.

A claimed tying arrangement in a virtual world would entail the tying of in-game items to the subscription to the virtual world itself through the End User License Agreement. Courts have held that the following items do not fall within the definition of a commodity: newspaper advertisements,<sup>158</sup> sponsorship rights,<sup>159</sup> banking services,<sup>160</sup> extensions of credit,<sup>161</sup> franchises,<sup>162</sup> trademarks,<sup>163</sup> insurance,<sup>164</sup> money<sup>165</sup>, and services<sup>166</sup>. However, courts have held computer software to be a commodity for purposes of a tying arrangement under the Clayton Act.<sup>167</sup> In *Digidyne Corp. v. Data General Corp.*, the Ninth Circuit held that a computer system manufacturer’s refusal to license its NOVA operating system software except to purchasers of its NOVA central processing units (“CPUs”) constituted an unlawful tying arrangement under both the Sherman Act and the Clayton Act.<sup>168</sup>

The *Digidyne* court first found that the CPU and the operating system were separate products and that “a demand existed for NOVA instruction set CPUs

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condition, agreement, or understanding that the lessee or purchaser thereof shall not user or deal in the goods . . . of a competitor or competitors of the . . . seller, where the effect of such lease, sale, or contract for sale or such condition, agreement, or understanding may be to substantially lessen competition or tend to create a monopoly in any line of commerce.

Clayton Act, 15 U.S.C. § 14 (2006).

<sup>156</sup> See, e.g., *Sports Racing Servs., Inc. v. Sports Car Club of Am., Inc.*, 131 F.3d 874, 880 n.8 (10th Cir. 1997) (finding no violation because tie was between racing services and cars); *Holleb & Co. v. Produce Terminal Cold Storage Co.*, 532 F.2d 29, 32 (7th Cir. 1976) (finding no violation because resale of goods to retail grocers and lease of warehouse facilities were services, not goods); *Advance Bus. Sys. & Supply Co. v. SCM Corp.*, 415 F.2d 55, 64–65 (4th Cir. 1969) (finding no violation because service contracts were tied to sale of paper and supplies).

<sup>157</sup> 15 U.S.C. § 14; *Satellite T Assoc. v. Cont’l Cablevision of Va., Inc.*, 586 F. Supp. 973, 975 (E.D. Va. 1982), *aff’d*, 714 F.2d 351 (4th Cir. 1983).

<sup>158</sup> *Ambook Enters. v. Time Inc.*, 612 F.2d 604 (2d Cir. 1979).

<sup>159</sup> *Columbia Broad. Sys., Inc. v. Amana Refrigeration, Inc.*, 295 F.2d 375 (7th Cir. 1961).

<sup>160</sup> *L&J Crew Station, LLC v. Banco Popular de Puerto Rico*, 278 F. Supp. 2d 547 (D.V.I. 2003).

<sup>161</sup> *E.T. Barwick Indus., Inc. v. Walter E. Heller & Co.*, 692 F. Supp. 1331 (N.D. Ga. 1987), *aff’d*, 891 F.2d 906 (11th Cir. 1989).

<sup>162</sup> *Crossland v. Canteen Corp.*, 711 F.2d 714 (5th Cir. 1983); *T.A.M., Inc. v. Gulf Oil Corp.*, 553 F. Supp. 499 (E.D. Pa. 1982).

<sup>163</sup> *T.A.M., Inc.*, 553 F. Supp. 499.

<sup>164</sup> *Waldo v. N. Am. Van Lines, Inc.*, 669 F. Supp. 722 (W.D. Pa. 1987).

<sup>165</sup> *United States v. Investors Diversified Servs.*, 102 F. Supp. 645 (D. Minn. 1951).

<sup>166</sup> *Chelson v. Oregonian Publ’g Co.*, 715 F.2d 1368 (9th Cir. 1983); *Satellite T Assoc. v. Cont’l Cablevision of Va., Inc.*, 586 F. Supp. 973, 975 (E.D. Va. 1982), *aff’d*, 714 F.2d 351 (4th Cir. 1983); *HDC Med., Inc. v. Minntech Corp.*, 411 F. Supp. 2d 1096 (D. Minn. 2006); *Capital Temporaries of Hartford, Inc. v. Olsten Corp.*, 383 F. Supp. 902 (D. Conn. 1974); *Centanni v. T. Smith & Son, Inc.*, 216 F. Supp. 330 (E.D. La.), *aff’d*, 323 F.2d 363 (5th Cir. 1963).

<sup>167</sup> See, e.g., *Digidyne Corp. v. Data Gen. Corp.*, 734 F.2d 1336 (9th Cir. 1984).

<sup>168</sup> *Id.* at 1338.

separate from defendant's [operating system], and that each element of the NOVA computer system could have been provided separately and selected separately by customers if defendant had not compelled purchasers to take both."<sup>169</sup> Additionally, the court found abundant evidence that defendant's operating system was "distinctive and particularly desirable to a substantial number of buyers, and could not be readily produced by other sellers."<sup>170</sup> Indeed, defendant's insistence upon licensing only to those who purchased the instruction set CPU "led buyers to purchase defendant's NOVA CPUs who would not have bought them or would have bought them elsewhere absent the tying arrangement."<sup>171</sup> This fact pattern is analogous to the kind of situation we find in the virtual world context. In the realm of RMT, users can acquire the gaming software and in-game items separately if a developer does not compel the user to get both from them.<sup>172</sup> Each virtual world's software is distinctive and particularly desirable to a substantial number of buyers, and is not readily produced by other sellers.<sup>173</sup> As in *Digidyne*, insistence upon licensing only to those who acquired the in-game items from the game forces some users to acquire them in-game when they would have preferred to buy them more efficiently elsewhere.<sup>174</sup>

Perhaps the more interesting question is with respect to the tied product: whether it is an in-game item or in-game currency. While software is considered a commodity under the Clayton Act, as previously discussed, money is not.<sup>175</sup> So, there is an argument that in-game currency would not fall within the definition of commodity and a section 3 claim would not apply.<sup>176</sup> Whether in-game items would qualify as a commodity is a more difficult question. Applying the definition set forth in *Satellite T Associate v. Continental Cablevision of Virginia, Inc.*, courts are likely to pounce on the lack of "tangible" characteristics, although such items are easily leased or sold.<sup>177</sup> Though some recent commentators have suggested that virtual goods and virtual alter-egos can be considered property under the current legal norms, current legislation has not yet developed a proper framework for managing virtual property conflicts.<sup>178</sup> Strategically speaking, it may not be worth claiming in-game items to be software as well, as the court may conclude that the software and the in-game items are not separate and distinct items, effectively destroying any section 3 claim.<sup>179</sup> Thus, it makes more sense to focus on the Sherman Act as a source of claim, rather than risk the chance that a Clayton

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<sup>169</sup> *Id.* at 1339.

<sup>170</sup> *Id.* at 1341.

<sup>171</sup> *Id.*

<sup>172</sup> *See id.* at 1339.

<sup>173</sup> *See Digidyne Corp. v. Data Gen. Corp.*, 734 F.2d 1336, 1341 (9th Cir. 1984).

<sup>174</sup> *See id.*

<sup>175</sup> *United States v. Investors Diversified Servs.*, 102 F. Supp. 645 (D. Minn. 1951).

<sup>176</sup> *See id.*

<sup>177</sup> *See Satellite T Assoc. v. Cont'l Cablevision of Va., Inc.*, 586 F. Supp. 973, 975 (E.D. Va. 1982), *aff'd*, 714 F.2d 351 (4th Cir. 1983).

<sup>178</sup> Starodoumov, *supra* note 25, at 17 (citing F. Gregory Lastowka & Dan Hunter, *The Laws of the Virtual Worlds*, 92 CAL. L. REV. 1 (2004)).

<sup>179</sup> *See Jefferson Parish Hosp. Dist. No. 2 v. Hyde*, 466 U.S. 2, 19–20 (1984); *Times-Picayune Publ'g Co. v. United States*, 345 U.S. 594, 613–14 (1953).

Act claim would be dismissed.

#### IX. CONCLUSION

As we see a vast increase in the impact of virtual worlds on our real-world economy, there comes a point when the desire to encourage and foster this new and exciting technology should give way to a need to protect competition in the marketplace. While we should not punish those who have achieved success, we cannot sit idly by and watch as they exploit their market power and destroy competition, often at the expense of the very users they are supposedly trying to attract.