The Uniform Computer Information Transactions Act (UCITA) attempts to regulate a nonexistent market failure. Regulators must understand the two market relationships in the software industry, the producer-consumer relationship and the producer-thief relationship, before they can draft effective regulation. Drafting regulations that affect both relationships can lead to market disruptions at best and market failure at worst. An analysis of the two relationships reveals that there has not been a market failure that needs regulating; rather, there is a lag in technology that prohibits proper demarcation between the two market relationships. Regulators should wait for technology to advance before adopting any legislation similar to UCITA.

INTRODUCTION

Imagine yourself purchasing a software product in your local store. You open the box and insert the CD. You check the box next to "I agree," click the "OK" button and the program installs. Ten days later, when you attempt to use the product, it fails to run. You seek a refund only to find out there is no recourse because the license to which you agreed now bars your use of the software. Sound farfetched? Not anymore.

Software licensors have ramped up their licensing enforcement procedures to combat rampant software piracy. In 2007 alone, the global software market reportedly lost $47 billion to software piracy, representing a 38% global piracy rate, causing a 33% loss of revenue. Licensors have

1 J.D. candidate at Duke University School of Law, B.S. in Electrical and Computer Engineering from Cornell University 2005.
4 See BUS. SOFTWARE ALLIANCE—HIGHLIGHTS, supra note 2 (noting that for every two dollars spent on software, one dollar was lost to pirates).
been fighting back with tougher license terms, which restrict use and installation. They have also lobbied for legislation and regulations seeking to enforce these harsh license terms. This lobbying led to the Uniform Computer Information Transactions Act (UCITA), which, if adopted, would establish a framework of rules to guide and direct all transactions of software. Since its inception, UCITA has met heated opposition from consumer groups and from the attorneys general of many states.

The debate reached a critical juncture in 2008 when Electronic Arts (EA) released its highly anticipated product, “Spore.” Unbeknownst to many consumers, “Spore” came packaged with a piece of Digital Rights Management (DRM) software that severely limited use through restrictive licensing. The backlash was unprecedented. On Amazon, the average rating for the product was a paltry one-and-a-half stars with over 2,800 reviews. In response to this and other negative consumer actions, EA relaxed the terms of the DRM to allow for more use and even relaxed some DRM terms of one of its future products.

The “Spore” DRM controversy revealed many shortcomings of a framework based on UCITA, and ultimately, how unnecessary UCITA is in the current market. This iBrief first explores some of the terms of UCITA and the current three-party market relationship within the software industry. It then argues that there has been no market failure in the software industry;

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5 For a discussion of the terms of the Spore DRM, see discussion infra Part II.A.
6 For a presentation of a brief history and summary of the Uniform Computer Information Transactions Act, see discussion infra Part I.A.
7 For a presentation of some of the motivations behind UCITA and some of its goals, see discussion infra Part I.A. A draft of UCITA can be found online at http://www.law.upenn.edu/bll/archives/ulc/ucita/ucita1200.pdf. Comments can be found online at http://www.law.upenn.edu/bll/archives/ulc/ucita/ucita600c.pdf.
9 See Ben Fritz, ‘Spore’s’ DRM Restrictions Irk Gamers, VARIETY, Sept. 19, 2008, http://www.variety.com/article/VR1117992527.html (noting that the DRM limited the number of installations and required internet connectivity each time a consumer wanted to use “Spore”).
10 Id. A quick search on Amazon for “Spore” reveals its low rating has not changed since the writing of the Fritz article.
rather, there is a lag in license technology. This lag coupled with the misunderstanding surrounding the current three-party model in the software market creates a dynamic market race. Legislators should wait for the technology and the market to evolve and settle before adopting any legal framework resembling UCITA. Finally, this iBrief suggests some courses of action legislators can take to address license enforcement when the lag in technology be resolved.

I. THE UNIFORM COMPUTER INFORMATION TRANSACTIONS ACT

UCITA was originally proposed as an amendment to Article 2 of the Uniform Commercial Code (UCC). After facing much opposition to its bias in favor of licensors, the drafters abandoned the direct amendment to the UCC and sought to promulgate the amendment as a separate act, which became known as UCITA. This Part will discuss some key policies that motivated the drafters and some of UCITA’s more controversial terms and consequences.

A. Policies and Terms

As the number of personal computers and the spread of the Internet grew in the 1990s, so did the amount of software distribution. Distributors quickly realized that the traditional laws governing sales of goods under Article 2 of the UCC were insufficient for the sale of software in three important ways. First, while traditional manufactured goods have clear owners prior and subsequent to sale, many sales of software involve licensed products with complex ownership arrangements. Second, a transaction for software no longer involved a tangible object, but a license granting a set of rights to intangible code; as many commentators have

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16 See id. (noting Article 2 rules written to handle sales of manufactured goods were inadequate when applied to sales of software or other computer information, and stating rules that inadequately govern a transaction drive up transaction costs).
17 Id. at 2.
noted, the license defines the product.\textsuperscript{18} The last problem concerns the evolution of traditional market relationships. Historically, one producer and one consumer negotiated the terms of a transaction, but with the emergence of the Internet, software licensors often found themselves marketing software to a massive, faceless consumer base.\textsuperscript{19} While many cases have addressed the enforceability of commercial software licenses under the UCC, the holdings often contradicted each other and left an indefinite legal landscape.\textsuperscript{20}

\textsection{7} UCITA’s drafters wanted a set of uniform rules that lowered transaction costs in the developing software market.\textsuperscript{21} Indefiniteness drives up transaction costs, so the UCITA drafters provided a definite legal framework that presumably makes software license terms enforceable. First, “[a] contract may be formed in any manner sufficient to show agreement, including . . . operations of electronic agents which recognize the existence of a contract.”\textsuperscript{22} Second, “[a] person that uses an electronic agent for making an . . . agreement, including manifestation of assent, is bound by the operations of the electronic agent, even if no individual was aware of or reviewed the agent’s operations or the results of the operations.”\textsuperscript{23} UCITA has established a framework where software license


\textsuperscript{19} See Priscilla A. Walter, UCITA: Establishing a Legal Infrastructure for E-Commerce, DRINKERBIDDLE.COM, 2000, at 2, available at http://www.drinkerbiddle.com/files/Publication/2a3765c9-cb95-4295-b1d7-940942157b98/Presentation/PublicationAttachment/1ebc303d-9496-471f-a341-63a52037f6c6/UCITA2.pdf (noting software licensors are now marketing to large enterprises rather than to small buyers).

\textsuperscript{20} See Hill v. Gateway 2000, Inc., 105 F. 3d 1147 (7th Cir. 1997) (holding arbitration clause in a license located within a shipping box for a computer was enforceable against the buyer); ProCD, Inc. v. Zeidenberg, 86 F.3d 1447 (7th Cir. 1996) (holding terms of a shrinkwrap license are enforceable unless they violate established law, public policy, or unconscionability); M.A. Mortenson Co. v. Timberline Software Corp., 998 P.2d 305 (Wash. 2000) (holding a limitation of remedies clause in a shrinkwrap license was enforceable because it was not unconscionable). But see Step-Saver Data Sys., Inc. v. Wyse Tech., 939 F.2d 91 (3d Cir. 1991) (holding terms of a software box-top license were not part of the contract between producer and consumer); Klocek v. Gateway, Inc., 104 F. Supp. 2d 1332, 1340–41 (D. Kan. 2000) (holding the consumer was the offeror and therefore, the consumer had to agree to the producer Gateway’s additional shrinkwrap license terms before they were enforceable).

\textsuperscript{21} Comments, supra note 15, at 1.

\textsuperscript{22} UNIF. COMPUTERS INFO. TRANSACTIONS ACT § 202(a) (2000) [hereinafter UCITA].

\textsuperscript{23} Id. § 107(d).
terms, no matter how hidden, become enforceable so long as a consumer
clicks “Ok” or “I Agree” and the terms are not unconscionable.\footnote{id} The
license, however, may alter what conduct manifests assent; a mouselklick
may not even be necessary.\footnote{id}

\section{Another practical consequence of operating in the software market}
is that the technology changes rapidly, and therefore, so do the market and
contract terms. To ease transaction costs associated generally with
modifying contract terms, UCITA removes some of the traditional hurdles
of modification. “An agreement modifying a contract subject to this [Act]
needs no consideration to be binding.”\footnote{id} Coupled with the simple conduct
sufficient to manifest assent, contracts formed under UCITA can be
modified much more easily than traditional contracts. A modification may
involve nothing more than a notification message or email and a consumer’s
continued use of the product to manifest assent.

\section{UCITA also provides some quick remedies, most notably self-help,
to breaches of contract. Upon breach and “cancellation of a license, the
licensor has the right . . . to prevent the continued exercise of contractual
and informational rights in the licensed information under the license.”\footnote{id} UCITA imposes restrictions on self-help to prevent complete market
failure.\footnote{id} The licensor also has the right to repossess any of the licensed
information.\footnote{id} A licensee has the rights to recover damages\footnote{id} and to seek
an injunction if a licensor does not adhere to the self-help restrictions.\footnote{id}

\section{Despite efforts to reach a balanced solution to the market problems,
the amendment to Article 2 of the UCC was met with opposition over its
provisions and coherency.\footnote{id} After the American Law Institute removed
themselves from the drafting process, the National Conference of
Commissioners on Uniform State Laws pushed the draft as a Uniform Act,

\begin{footnotes}
\footnote{id}{Id. § 111.}
\footnote{id}{Id. § 112(f).}
\footnote{id}{Id. § 303(a).}
\footnote{id}{Id. § 815(a)(2).}
\footnote{id}{See id. § 815(b) (allowing self-help only when it will not “breach . . . the
peace” and when it will not cause a “foreseeable risk of personal injury or
significant damage to information or property”); id., § 815 cmt. 3 (reiterating the
conditions allowing self-help); id. § 816(b) (preventing self-help for mass
market licenses).}
\footnote{id}{Id. § 815(a).}
\footnote{id}{Id. § 816(e).}
\footnote{id}{Id. § 816(g).}
\footnote{id}{Article 2B Is Withdrawn from UCC and Will Be Promulgated by NCCUSL as
Separate Act, supra note 14.}
\end{footnotes}
now called UCITA. The next Part will discuss some of the opposition and concerns surrounding UCITA.

B. Outrage and Opposition

¶11 Commentators have heavily criticized UCITA for its bias in favor of licensors. They fear that UCITA will drive up the cost of software transactions and reduce consumer power. Much of this fear centers on the broad authority given to producers to specify and modify contract terms without any negotiation or significant assent from consumers, and on the remedies available to producers upon breach.

¶12 First, commentators are concerned the enforcement of shrinkwrap and box-top license terms will lead to a skewed marketplace. Some judges have taken the position that software license terms may be unenforceable because they were not bargained-for pieces of the original contract, while other judges have found them to be enforceable. The difference in outcomes under the UCC shows significant judicial discretion in determining the state of the disputed market transaction before enforcing or

33 Id.
35 Americans for Fair Electronic Commerce Transactions, supra note 34.
36 See id. (noting UCITA will make it hard for consumers to challenge shrinkwrap license terms and to notice contract modifications). For a discussion of the lax standards governing assent in UCITA, see supra Part II.A.
37 See supra Part II.A (discussing the self-help remedy).
38 See Step-Saver Data Sys., Inc. v. Wyse Tech., 939 F.2d 91, 105–06 (3d Cir. 1991) (holding terms of a software box-top license were not part of the contract between producer and consumer); Klocek v. Gateway, Inc., 104 F. Supp. 2d 1332, 1341 (D. Kan. 2000) (holding Gateway’s additional shrinkwrap license terms were unenforceable because buyer never expressly agreed to them).
39 See Hill v. Gateway 2000, Inc., 105 F.3d 1147, 1151 (7th Cir. 1997) (holding arbitration clause in a license located within a shipping box for a computer were enforceable against the buyer); ProCD, Inc. v. Zeidenberg, 86 F.3d 1447, 1449 (7th Cir. 1996) (holding terms of a shrinkwrap license were enforceable unless they violated established and general contract principles); M.A. Mortenson Co. v. Timberline Software Corp., 998 P.2d 305 (Wash. 2000) (holding a limitation of remedies clause in a shrinkwrap license was enforceable because it was not unconscionable).
ignoring license terms. Under UCITA, the enforceability of such terms would be unquestionable and independent of the marketplace.40

¶13 Another concern of commentators is that consumers will be unaware of contract modifications under UCITA. The proposed Act removes the requirement for consideration and lowers the required amount of notification necessary to make modifications of license terms.41 UCITA opens the door for bait-and-switch tactics that a typical consumer may never notice.42

¶14 Even more troubling for many commentators is the possibility of self-help remedies.43 These remedies would authorize licensors to remotely shut down software systems upon learning of a breach.44 Certain commentators have referred to self-help remedies as “time bombs.”45 Others describe self-help remedies as a means of holding companies hostage to licensors’ future demands.46 However classified, these commentators view self-help as the antithesis of a free market.

¶15 All of the UCITA pitfalls combined could lead to one giant mess. Consider the following scenario. A licensor could sell a piece of software to a business with take-it-or-leave-it license terms. After a few months, the licensor could change the license to contain terms that are contrary to the business’s current usage and to which the business would never have agreed originally. The licensor would post the changes to an obscure page on its website and the business would continue using the software unaware of these changes.47 The licensor could then alert the business and threaten to

40 For a discussion noting that software license terms are presumably enforceable once agreement has been reached under a light standard of discerning assent, see supra Part II.A.
41 For a discussion of UCITA’s departure from traditional contract law pertaining to contract modification, see supra Part II.A.
42 Ed Foster, UCITA Pitfalls, INFO WORLD, Aug. 18, 2000, http://www.infoworld.com/articles/uc/xml/00/08/21/000821ucissues.html (on file with author) (noting licensors could modify existing terms of an agreement by posting a message on their website without alerting consumers of the website or requiring the website be viewed) [hereinafter Foster, UCITA Pitfalls]; see Americans for Fair Electronic Commerce Transactions, supra note 34 (noting licensors can modify terms of certain contracts unilaterally after agreement).
43 For a discussion of self-help remedies and their limitations under UCITA, see supra Part II.A.
44 Id.
45 Foster, UCITA Pitfalls, supra note 42.
46 See Americans for Fair Electronic Commerce Transactions, supra note 34 (noting UCITA authorizes licensors to shut down mission critical software because of license disputes).
47 Under UCITA, posting changes anywhere on the website would suffice as notification and assent. Foster, UCITA Pitfalls, supra note 42.
deactivate all the software unless the business stopped use or paid for its breach. In essence, the licensor could force the business’s hand and remove any market power it ever had.

¶16 Despite its noble goals, UCITA has met stern opposition over its means. The Federal Trade Commission and the attorneys general of twenty-six states have publicly criticized UCITA for its bias in favor of producers.48 These officials and commentators are troubled by licensors’ forcefully eliminating consumer power.49 An analysis of the true state of the market, however, reveals that any regulation of the software market is ultimately unnecessary.

II. STATE OF THE MARKET

¶17 Understanding the players in the software market and how they interact is critical in developing proper regulation. If regulations are too broad, they threaten the market by affecting untargeted parties. If they are too limited, they will not bring about the desired solutions. The software market contains three key players: producers, consumers, and thieves. This Part discusses each role and the interactions between producers and consumers as well as between producers and thieves.50

A. Producer-Consumer Relationship

¶18 The producer-consumer relationship generates the revenues for the software industry. Producers create software that is bought at market by the consumers.51 The paradoxical struggle between producers and consumers concerns market power: whoever has the most market power receives the most favorable license terms. Producers want terms that protect their intellectual property while consumers want terms that maximize their right to use the product.52

48 Americans for Fair Electronic Commerce Transactions, supra note 34.
49 For example, self-help remedies may remove a consumer’s ability to renegotiate fairly with producers by holding consumers hostage to the producers’ demands.
50 This paper assumes consumers are mutually exclusive from thieves; once a consumer does anything illegal (e.g. stealing software), he falls into the thief category. While hypothetical situations exist where thieves can steal software from individual consumers, this paper eliminates those largely irrelevant and highly irregular relationships for the sake of simplicity.
51 A relationship that is similar in any other market.
¶19 As personal computing began to take root and grow, software producers began to package licenses with their products to curtail undesired uses by a large faceless consumer market. Consumers could do little to control the terms in these licenses. After the emergence of the Internet, consumers realized they could use technology to form a collective voice and challenge producers’ license terms, culminating in their recent market victory with EA’s “Spore.”

1. Market Power: In the Beginning

¶20 The interaction between software producers and consumers is notably different from those in other markets. Software licensing occurs at the crossroads of copyright law and contract law. Copyrights protect the intellectual property contained within the software, but they do not adequately protect producers from the legal consequences of many other forms of consumer use. Producers need to enter into contract agreements with consumers to restrict undesired uses. However, producers can not sit down and negotiate contracts with each individual user in the mass market. Shrinkwrap and box-top licenses became the solution. Despite the lack of negotiation, courts did treat some of these licenses as enforceable contracts.

¶21 Consumers generally exercised very little market power in controlling license terms. While software producers operated at an industry level and interacted with a large faceless market, consumers still operated at the individual, personal computing level. Without any means to band together, consumers were stuck with software producers who called the shots.

2. The Internet and the Rise of Consumer Market Power

54 Id.
55 Id.
56 See Hill v. Gateway 2000, Inc., 105 F.3d 1147, 1151 (7th Cir. 1997) (holding arbitration clause in a license located within a shipping box for a computer were enforceable against the buyer); ProCD, Inc. v. Zeidenberg, 86 F.3d 1447, 1449 (7th Cir. 1996) (holding terms of a shrinkwrap license were enforceable unless they violated established and general contract principles); M.A. Mortenson Co. v. Timberline Software Corp., 998 P.2d 305 (Wash. 2000) (holding a limitation of remedies clause in a shrinkwrap license was enforceable because it was not unconscionable).
57 This is not to say that all software license terms were oppressive or that consumers often challenged them.
¶22 The Internet provided the missing means for consumers to form a collective voice. The power of the collective voice became evident during the release of EA’s hyped product, “Spore,” which they released in 2008. Unbeknownst to many consumers, “Spore” came packaged with a piece of DRM software that severely limited use through restrictive licensing. The backlash was unprecedented. On Amazon, the average rating for the product was a paltry one-and-a-half stars with over 2,800 reviews. Discussion and outrage flooded news sites and forums. A class action lawsuit was even filed against EA.

¶23 In response, EA relaxed the terms of the DRM to allow for more use and even relaxed some DRM terms of one of its future products. Eventually, EA produced a version of “Spore” that did not contain the harsh DRM. It also launched a de-authorization tool for consumers who purchased a copy of “Spore” that contained the DRM.

¶24 The Internet provides software consumers with a means of acquiring market power. EA discovered that the once faceless consumer market now had a public voice capable of negotiation; consumers were now capable of shopping for the license terms they wanted. If EA refused to alter the license terms, consumers refused to buy and told the world why.

¶25 The changes did not end with “Spore.” EA changed license terms for its subsequent products as well. While high sales figures for “Spore” were important for EA, they also realized their business reputation was at risk. If they persisted in marketing undesired license terms, consumers

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58 See Fritz, supra note 9 (noting the DRM limited the number of installations and required internet connectivity each time a consumer wanted to use “Spore”).
59 Id. A quick search on Amazon for “Spore” reveals its low rating has not changed since the writing of the Fritz article.
62 Lardinois, supra note 11.
63 See Thang, supra note 12 (noting Red Alert 3 would be useable without having the CD in the drive and could be installed up to five times).
might not buy their future products.\textsuperscript{65} As a result, EA changed DRM restrictions on their future products and eventually provided a way to remove the DRM restrictions on “Spore.”

\textsuperscript{65} See Schonfeld, \textit{supra} note 60 (saying EA experienced a backlash, not because consumers disliked the game, but because consumers did not like EA telling them what they could and could not do).

\textsuperscript{66} Shrinkwrap licenses were traditionally only viewable by a purchaser.

\textsuperscript{67} For an in-depth look at a two-party model analysis of the software market, see Reichman & Franklin, \textit{supra} note 18, at 897.

\textsuperscript{68} BUS. SOFTWARE ALLIANCE—HIGHLIGHTS, \textit{supra} note 2.

\textsuperscript{69} BUS. SOFTWARE ALLIANCE—SUMMARY, \textit{supra} note 3.

\textsuperscript{70} See BUS. SOFTWARE ALLIANCE—HIGHLIGHTS, \textit{supra} note 2 (noting for every two dollars spent on software, one dollar was lost to pirates).

\textsuperscript{71} Methenitis, \textit{supra} note 52.

\textsuperscript{72} \textit{Id.} (“The less piracy there is, the less need for over-the-top DRM solutions there is.”)

The Internet has provided consumers a newfound market power in transactions involving software. It has given them a collective voice with which they can negotiate against software producers for favorable license terms. Producers that fail to negotiate or refuse to compromise subject their licenses to public scrutiny and risk poor sales.\textsuperscript{66}

\textbf{B. Producer-Thief Relationship}

\textsuperscript{66} Shrinkwrap licenses were traditionally only viewable by a purchaser.

\textsuperscript{67} For an in-depth look at a two-party model analysis of the software market, see Reichman & Franklin, \textit{supra} note 18, at 897.

\textsuperscript{68} BUS. SOFTWARE ALLIANCE—HIGHLIGHTS, \textit{supra} note 2.

\textsuperscript{69} BUS. SOFTWARE ALLIANCE—SUMMARY, \textit{supra} note 3.

\textsuperscript{70} See BUS. SOFTWARE ALLIANCE—HIGHLIGHTS, \textit{supra} note 2 (noting for every two dollars spent on software, one dollar was lost to pirates).

\textsuperscript{71} Methenitis, \textit{supra} note 52.

\textsuperscript{72} \textit{Id.} (“The less piracy there is, the less need for over-the-top DRM solutions there is.”)

\textsuperscript{66} Shrinkwrap licenses were traditionally only viewable by a purchaser.

\textsuperscript{67} For an in-depth look at a two-party model analysis of the software market, see Reichman & Franklin, \textit{supra} note 18, at 897.
provides a clear example of the spillover between antipiracy measures and consumer usability.

Yet the producer-thief relationship is distinct from the producer-consumer relationship because thieves are not parties to any contracts or licenses. Regulators must treat the producer-thief relationship separately from the producer-consumer relationship, which could have dire consequences for the software market.73

III. CONSEQUENCES AND SOLUTIONS

The “Spore” DRM controversy revealed many shortcomings of a framework based on UCITA,74 and ultimately, how unnecessary UCITA is in the current market. This Part will first explore the consequences of regulating the three-party market relationship within the software industry. It then argues that there has been no market failure in the software industry; rather, there is a lag in license technology. This lag coupled with the misunderstanding surrounding the current three-party model in the software market creates a dynamic market race. Legislators should wait for the technology and the market to evolve and settle before adopting any legal framework resembling UCITA. Finally, this Part suggests some courses of action legislators can take to address license enforcement should the lag in technology be resolved.

A. Consequences of the Three-Party Model

Failing to separate the producer-consumer relationship from the consumer-thief relationship leads to broad and unnecessary regulation. UCITA attempts to enforce software license terms across the entire market without accounting for the differences between producers and consumers and between producers and thieves. While efficient in reducing transaction costs, this regulation will lead to market disruption at best and market failure at worst.

Regulations that target the producer-consumer relationship will be ineffective. Consumers have already demonstrated through the “Spore” fiasco that forcing license terms upon them leads to inefficient markets.75 Consumers now have enough market power to seek better license terms and to ignore unfavorable ones. An UCITA regulatory framework, in which license terms would be binding on consumers, would be ineffective in

73 For a discussion of the market breakdown if regulations for the producer-thief relationship are applied to the producer-consumer relationship, see infra Part III.A.
74 For a discussion of the fallout from the “Spore” DRM, see supra Part II.A.2.
75 For a discussion of how consumer ire and collective effort forced Electronic Arts to lighten their license terms, see supra Part II.A.2.
enforcing producers’ terms because consumers would simply refuse to buy as a collective unit until the producers relaxed their license terms. This is a prime example of market success rather than market failure in need of regulation. UCITA is not needed to guide the producer-consumer relationship.

¶34 Even supposing that consumers would accept harsh license terms enforced by UCITA, the market would not benefit. Enforcing harsh license terms against consumers and thieves minimizes costs for producers.76 This reduction in cost could lead to larger market failures down the road. Consumers have been disgruntled with harsh license terms because they feel producers treat them like thieves.77 As more and more consumers become disgruntled, the amount of piracy may increase.78 Increased piracy reduces revenues, which offsets the initial cost savings of enforcing harsh license terms. Regulations that cut across the entire market to affect the producer-consumer relationship and the producer-thief relationship ultimately are ineffective or lead to market failure.

¶35 Regulations targeting the producer-thief relationship would yield more efficient market results. Software producers want to maximize profits by targeting pirates.79 Reclaiming $47 billion would be a large boost to any industry.80 Proper regulation should provide producers with procedures and remedies against pirates. By reducing piracy, producers would also be able to offer less restrictive license terms against consumers.81 Less restrictive terms would free up market transactions and possibly reduce the need for negotiations altogether between producers and consumers.82 Ultimately, regulations that target the producer-thief relationship will be the

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76 See Methenitis, supra note 52 (“The less piracy there is, the less need for over-the-top DRM solutions there is.”).
80 See BUS. SOFTWARE ALLIANCE—HIGHLIGHTS, supra note 2.
81 Methenitis, supra note 52 (“The less piracy there is, the less need for over-the-top DRM solutions there is.”).
82 For a discussion of how consumers used the Internet to force Electronic Arts to renegotiate license terms, see supra Part II.A.2.
best market solution. The problem lies in effectively separating consumers from thieves.

B. Lag in Technology versus Market Failure

\(\S 36\) The need for regulation to target only the producer-thief relationship reveals the true problem that all the parties are trying to resolve: the lag in technology. If legislators wait for technology to advance before adopting any regulatory measures, they will reach the most efficient market solution. In order for regulation to efficiently target the producer-thief relationship, it cannot overextend into the producer-consumer relationship.\(^{83}\) Yet technology has not advanced to the point where producers can separate thieves from consumers.\(^{84}\) Once technology advances to the point where producers can draw such a line, then regulators can draft efficient regulations.

\(\S 37\) These advances may not be far off. For example, one of the main criticisms against the “Spore” DRM was that users had to connect to the Internet each time to start playing.\(^{85}\) This seemingly harsh term would be inconsequential as Internet grows more ubiquitous. As server technologies advance, producers will also be able to create more effective licenses that encourage proper use rather than discourage improper use. For example, licenses now have more network components than in the early days of software licensing due to server and Internet advances.\(^{86}\) The network components allow producers to cheaply track and authenticate users as well as provide users with network benefits once authenticated. These technological advances will all provide better tools with which producers and regulators can separate consumers from thieves.

\(\S 38\) Whether ubiquitous Internet use or advanced server technologies allow for smarter authentication techniques, advances in technology must occur to better mark the line between consumers and thieves. Otherwise, legislators will be faced with an impossible task as all regulations will necessarily affect both the producer-consumer and the producer-thief relationship.

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\(^{83}\) For a discussion of the market disruptions and failures caused by overextending regulations such as UCITA, see supra Part III.A.

\(^{84}\) See Methenitis, supra note 52 (noting as piracy increased, producers chose the simple solution of enforcing harsh license terms across the board). Had there been a more efficient technological solution, producers would have chosen it.

\(^{85}\) Fritz, supra note 9.

\(^{86}\) See Methenitis, supra note 52 (noting copy protection originally was held on individual disks or CDs, but digital distribution in the last few years has tied accounts to systems).
C. Proposed Regulation

Once technology has advanced so that producers can separate consumers from thieves, then legislators can take steps to address the producer-thief relationship. These steps may include enforcing tougher criminal sanctions or providing producers with quick civil remedies for claiming damages.

It will be easier to enforce criminal laws against thieves as technology allows more efficient demarcation between consumer and thief. Consumers will be more willing to authenticate themselves to separate themselves from thieves, and authentication will be an easier process. As a result, unauthenticated use will be easier to detect and track. States will have an easier time gathering evidence against thieves and will seek criminal convictions against them.

Courts can also provide software producers with quick civil remedies, such as levying fines, to recover damages against thieves. Currently, organizations such as the Business Software Alliance and the Software & Information Industry Association can only inform the public and file civil lawsuits against thieves. There is no mechanism through which these organizations can recover damages without entering into protracted civil suits. However, if producers can separate consumers from thieves in an effective manner, it would be possible to give organizations the power to levy fines against proven thieves.

Advances in licensing technology would open the door for tougher and more accurate enforcement. The increased risk of criminal sanctions or civil damages should raise the cost of piracy to the point where it is no longer economically feasible to pirate software as opposed to buying it legitimately.

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87 See Fritz, supra note 9 (noting some consumer reviews saying “don’t treat me like a thief”).
88 For a discussion noting that advances in server technology would encourage proper use and create favorable licensing schemes, see supra Part III.B.
89 For more information about the Business Software Alliance, visit http://www.bsa.org/country/Anti-Piracy.aspx.
90 For more information about the Software & Information Industry Association, visit http://www.siia.net/piracy.
91 See, e.g., Software & Information Industry Association, Anti-Piracy FAQ, http://www.siia.net/piracy/faq.asp (last visited March 20, 2009) (noting civil suits are available to producers to recover damages, however fines are strictly limited to the criminal context).
CONCLUSION

¶43 Software piracy has been on the rise, but enforcing harsh software license terms across the market through a regulatory device such as UCITA is not an appropriate market solution. As demonstrated by the “Spore” episode, regulation of the current software market would achieve nothing. Consumers would simply refuse to buy products with harsh license terms, forcing producers to redraft their licenses with more favorable terms. This behavior is a sign of a healthy market rather than one that has failed and needs to be regulated.

¶44 The proper solution is to use regulatory devices to target the producer-thief relationship. This solution can only be effectively achieved if legislators wait for licensing technology to advance so that producers can clearly separate consumers from thieves. Once technology has caught up, legislators should feel more comfortable enforcing criminal laws more regularly against thieves or providing producers with a mechanism to quickly recover civil damages.

¶45 Currently, there are no perfect technology solutions, but recent trends in antipiracy technology shows that producers are close to bridging the technology gap. Server side authentication is already used for some mainstream software (e.g. Windows XP and Spore), but there is still a problem with implementing the technology in a consumer-friendly way. Although the world may never be rid of thieves who seek to pry the technology gap wider with their own tools, as technology progresses, the cost of such prying will increase so that it makes little economic sense for thieves to steal. Regulations such as UCITA are overkill when technology is so close to providing the clean solution.