ON TRADEMARKS, DOMAIN NAMES, 
AND INTERNAL AUCTIONS

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The first-in-time priority rule for appropriation of domain names has deprived various established businesses of the ability to use their valuable trademarks as their domain names. Many firms have seen their trademarks registered as domain names by “cybersquatters”—individuals who register famous marks for the purpose of reselling them at a higher price to their owners—while others have watched smaller businesses win the registration race. The inability of established firms to use their trademark as their domain name imposes high costs not only on the firms, but also on Internet users who are forced to bear higher search costs when transacting on-line.

Two legal solutions have emerged in response to this problem. In 1999, Congress enacted the Anticybersquatting Consumer Protection Act, establishing a new cause of action against cybersquatting. In addition, the International Corporation for Assigned Names and Numbers (ICANN)—the entity responsible for assigning domain names—has instituted rules for arbitration of domain name disputes. Central to both solutions is the “good-faith” standard: if the domain-name registrant acted in good faith, she should retain the domain name.

In this essay, Professor Parchomovsky argues that neither solution provides an adequate mechanism for resolving disputes over domain names. Both solutions are unnecessarily expensive and time-consuming, and neither guarantees the efficient allocation of domain names. A superior solution would be an asymmetric internal auction system to resolve domain-name disputes. The auction mechanism would ensure that the disputed domain-name ends up in the hands of its highest value user, while granting just compensation to the other party. Furthermore, it accomplishes this result instantaneously and at negligible cost.

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I. INTRODUCTION

The rapid evolution of the Internet into a principal medium of commerce has taken many established businesses by surprise, leaving them out of step with the new reality. As these heavy-hitting, yet slow-moving giants have finally awakened, they have discovered—much to their dismay—that they can no longer register their vaunted trademarks as domain names. Cyberprospectors, and other smaller business enterprises have beaten them to the registry. This “first come, first served” priority rule has substantially disadvantaged many established corporations, forcing them to buy back the right to use marks and symbols they labored to develop, or adopt a different, less recognizable, domain name.

Examples are legion. Giant multi-billion-dollar businesses, such as Apple Computer,1 Morgan Stanley Dean Witter & Co.,2 Federal Express,3 and the World Wrestling Federation4 have been forced to find a way to wrestle their trademarks from the hands of entrepreneurial individuals who recognized the potential of e-commerce slightly ahead of them. Even the New York Yankees, Major League Baseball’s world champions in four out of the last five baseball seasons, fell behind, at least in the first inning, in their “match” against Brian McKiernan, a forty-one-year-old fan, who registered the domain name <newyorkyankees.com>.5

Some of these businesses managed to rebound with relative ease. In the case of Apple Computer, for example, the mere threat of a trademark infringement suit sufficed to prompt the domain name appropriator, a sixteen-year-old Canadian teenager, to renounce ownership of the domain name <www.appleimac.com>.6 Other companies were less fortunate. Compaq Computer Corporation had to pay $3.35 million for the

2. See id.
5. See New York Yankees v. McKiernan, No. 99-CV-8449 (E.D.N.Y. filed Dec. 23, 1999); see also Mary Huhn, Yanks Sue QIS. Fan; Boss Wants His Website, N.Y. POST, Dec. 29, 1999, at 34; Neil MacFarquhar, Those Dominant Yankees Fight for a Domain Name, N.Y. TIMES, Jan. 6, 2000, at B3. Other famous commercial entities and organizations that found themselves in a similar predicament include, inter alia, the sponsors of America’s Cup yacht race; the National Football League; Eastman Kodak Co.; QVC Inc., the home-shopping network; and Harvard University. See Debra Baker, Standing Up to Cybersquatters: Judges Are Seizing on New Legislation to Keep Web Site Pirates From Taking a Name for Themselves, A.B.A. J., Mar. 2000, at 18, 18-19.
right to use the domain name <altavista.com>. Faring a little better, McDonald's consented to wire a high school to the Internet in consideration for the domain name <www.mcdonalds.com>. Other corporations, such as Morgan Stanley-Dean Witter & Co. and Panavision, reached an impasse in their negotiations with the domain-name holders and had to resort to litigation to obtain the right to use their trademarks as domain names.

Trademark owners, however, are not the only group harmed by the first-in-time rule that governs allocation of domain names. A second, widely overlooked, group of victims are the consumers of the trademark owners, who are deprived of the cheapest, and least time consuming, way of transacting on-line. Unable to find businesses where they expect — using the trademark or the business's name as a domain name — millions of consumers are forced to engage in treacherous and time-consuming "term searches" in order to find the merchandise or services they seek to purchase.

To alleviate the plight of the trademark owners and their consumers, President Clinton signed into law the Anticybersquatting Consumer Protection Act (ACPA) on November 29, 1999. The act amended section 43(d) of the Lanham Act to create a cause of action against cybersquatting. The act defines cybersquatting as a bad-faith attempt to profit, register, or traffic in a domain name that at the time of its registration was identical or confusingly similar to a distinctive or famous trademark.

In a similar vein, the Rules for Uniform Domain Name Dispute Resolution Policy (UDRP), promulgated by the International Corporation for Assigned Names and Numbers (ICANN), adopts bad faith as the linchpin of its scheme. Specifically, paragraph 4(a)(iii) of UDRP defines "applicable disputes" as ones in which the domain-name registra-

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10. See Panavision Int'l, L.P. v. Toeppe, 141 F.3d 1316, 1319 (9th Cir. 1998) (holding that defendant's actions violated trademark laws).
13. See id. § 1125(d)(1)(A).
15. Id. ¶ 4(a)(iii).
Although these solutions are a step in the right direction, they are hardly satisfactory. First, neither approach provides a comprehensive solution to the problem. Second, and more importantly, the reliance of both solutions on the good faith of the domain-name registrant is welfare diminishing relative to other alternatives that could—and in my opinion, should—have been adopted.

The ACPA is incomplete because it only covers conflicts in which the trademark preceded the domain name; only trademark owners whose marks were famous or distinctive at the time of the domain name’s registration can take advantage of the new anticybersquatting cause of action.16 Yet, given the rate of appropriation of domain names, it is quite likely that future conflicts will involve trademark owners who developed a distinctive or famous mark after the registration of the domain name—that is, conflicts between first-in-time domain-name registrants and later-in-time trademark owners. Secondly, the act only applies to trademarks that were famous, distinctive, or registered nationally at the time of the domain name registration.17 Marks that gained the required status at some later time are not covered by the Bill. The UDRP avoids these problems but it is inexhaustive as it allows the parties to opt out at any time during the arbitration process and litigate instead.18 Moreover, any decision of the arbitration panel can be appealed to a court of law.19

More importantly, from the standpoint of economic efficiency, the reliance on good faith is problematic for two principal reasons. First, good faith is a notoriously fuzzy standard, infamous for breeding uncertainty. Consequently, it impairs the ability of both trademark and domain-name owners to ascertain the status and strength of their respective entitlements vis-à-vis one another. Second, the good-faith standard does not guarantee an efficient allocation of resources. Economic efficiency concerns itself with the efficient allocation of resources. More particularly, it seeks to ensure that resources wind up in the hands of the highest value users.20 Accordingly, in a dispute between a trademark holder and a domain-name registrant, economic efficiency prescribes that the party who values the domain name more highly should ultimately get it, independently of whether the domain-name registrant acted in good faith.

16. See 15 U.S.C.A. § 1125(d)(1)(A)(ii)(I)-(II) (stating that for a cause of action to accrue, a mark must be “distinctive” or “famous at the time of registration of the domain name”) (emphasis added).

17. It must be noted that it is often difficult to determine whether a mark is sufficiently famous or distinctive. As one commentator points out, “Coca-Cola may present no problem, but what happens when the Acme Fertilizer Co. wants the same address as the Acme Fertility Clinic Co.?” John Gibeaut, Staking an Internet Claim: The Rush to Grab a Site Name Has Led to New Rules, But No One to Enforce Them, A.B.A.J., July 1999, at 82, 82.

18. See UDRP, supra note 14, ¶ 4(k).

19. See id.

A simple example may help illustrate this point. Assume that Charlie Klein, an astute student at the University of Illinois College of Law, registers the domain name <ck.com>. Charlie's appropriation of the name clearly imposes a cost on Calvin Klein who now has to adopt and advertise a new name. Furthermore, Charlie's use of the domain name imposes a considerable cost on Calvin's consumers. Thus, economic efficiency requires that Calvin Klein get the domain name. Yet, neither the ACPA nor UDRP guarantee this result: Charlie's initials potentially immunize him against any legal action by the trademark owner.

One might argue, though, that this result should not worry us. Private bargaining between the parties would ensure the efficient outcome. As Coase demonstrated, in a world without transaction costs legal entitlements are irrelevant. Alas, the Coasean world in which transacting is cost-free is very far from the real world—especially, insofar as the present context is concerned. Bargaining between domain-name registrants and trademark owners presents the problem of bilateral monopoly. In such negotiations there is only one buyer and only one seller, and consequently, the price of the transaction is indeterminable, ex ante. Knowing that the other party must transact with her, or not at all, each of the parties to the negotiation will assay to extract as much of the bargaining surplus as possible—a strategy that dramatically increases transaction costs, as well as the likelihood of negotiation breakdown. Therefore, private negotiation between the parties may not, in general, be relied upon to effect an efficient allocation of domain names. Moreover, even when such negotiation does result in an efficient outcome, the cost of attaining this outcome—i.e., the transaction cost—is likely to be quite significant.

An efficient way to overcome the bilateral monopoly problem, and ensure that the domain name ends up in the hand of its higher value user, is provided by auction theory. The virtue of auctions lies in their ability to force parties to reveal private information, thereby eliminating the incentive to negotiate strategically. Thus, auctions can guarantee the efficient allocation of resources when standard negotiations fail. Drawing
on auction theory, I propose that disputes between trademark and domain-name owners be resolved through an asymmetric internal auction in which the domain name will be auctioned off between the parties. The auction may be initiated by any of the parties unilaterally, and will proceed in two stages: First, the auction administrator will screen out domain-name registrants for eligibility. The screening test to be applied is added value. Only registrants who add independent value to the name by actively using it in trade should be eligible to enter the auction. Registrants who do not add value—widely known as "warehouses" and "cybersquatters"—are essentially free riders who seek to capitalize on the trademark owner's investment in goodwill, without generating any social benefit. Because this behavior is socially undesirable, the law should discourage it by restoring the names to their trademark owners who made them valuable.

Second, the domain name will be auctioned off between the domain-name registrant and the trademark owner in a closed bid auction. The auction will proceed according to the following rules:24

(a) Each bidder will post a bond in the amount of her bid.
(b) If the trademark owner submits the higher bid, she will get the domain name for a price equal to the bid of the domain-name registrant.
(c) If, by contrast, the domain-name owner submits the higher bid, she will retain the domain name but she will have to pay the amount of her bid to the trademark owner.
(d) At the end of the auction, the domain name will become inalienable for a period of two years.

As I will demonstrate, these rules provide each of the parties with an incentive to submit a bid that closely approximates her private valuation of the domain name. The trademark owner, who presumably values the name more highly, but fears "extortion," will reveal her true valuation, because the price she will have to pay does not depend on the bid she submits. Admittedly, the domain-name registrant will not reveal her true valuation; rather, she will shade her bid up somewhat. Yet, her strategic ability to exaggerate her valuation is capped by the fear that she might end up paying the amount of her bid and the requirement to post a bond in this amount. Excessively raising the bid is a self-defeating strategy for the domain-name owner because the bid amount may turn out to be the price she ultimately pays. Under the proposed mechanism, the domain-name registrant cannot be sure, ex ante, whether she will end up receiving or paying her bid. Consequently, she will be cautious not to overplay her cards. Thus, as long as the parties bid rationally, at the conclusion of the auction, the domain name will reach the party who values

24. For discussion of alternative auction rules, see infra Part IV.C.
it more. Moreover, the proposed auction accomplishes this result at a negligible cost without need for extensive negotiation or litigation.

II. WHAT'S IN A [DOMAIN] NAME?

Slightly rephrased, Shakespeare's rhetorical question of almost five centuries ago, "what's in a name?" can be succinctly answered. When the term "domain" is inserted right before "name" the answer is straightforward: a lot. Indeed, very few assets have increased in value and commercial importance as rapidly as domain names. The domain name <business.com> was recently auctioned off for $7.5 million and <wine.com> for the more "modest" amount of $3 million. Perhaps even more astounding is the rate at which domain names are being appropriated. In 1999, new domain names were claimed and registered at a rate of 300,000 per month. Yet, if one pauses to reflect, she will find out that this trend is completely justifiable.

The meteoric ascent of domain names is inextricably related to the ascent of the Internet as a primary medium of commerce. Metaphorically speaking, domain names are the traffic signs of the Internet. Without them, the Internet would not be an "information superhighway," at least not insofar as e-commerce is concerned. As was the case with many other valuable resources in the history of American property, domain-name appropriation has been governed by the first-in-time rule.

26. See The Early Show, supra note 8.
27. See CBS Evening News: Competition Over Reserving Domain Names on the Internet (CBS television broadcast, Nov. 7, 1999) [hereinafter CBS Evening News]. It is interesting to note that neither the term "business" nor the term "wine" could be claimed as trademarks because both terms are generic. They could, and indeed were, registered as domain names because those limitations applicable to trademarks do not apply to domain names. Indeed, for this very reason generic words make the most valuable domain names: they are highly valuable because of their simplicity and registering them does not run the risk of being sued by a disgruntled trademark owner.
28. Having realized that 70% of the population of the U.S. shares one of only 9,000 last names, Jerry Sumpton, a Canadian entrepreneur, teamed up with a group of investors, and registered the names of over 60% of the population. See Scott Wootley, Internet Master of Your Domain: Want to Reserve Your Surname on the Net? Too Late—A Firm You Never Heard of Probably Owns It, FORBES, July 26, 1999, at 244.
29. See CBS Evening News, supra note 27. To date, almost 33 million domain names have been registered worldwide, with the vast majority, over 20 million, in the .com Top Level Domain. See NETNAMES, LATEST DOMAIN STATS, at http://www.netnames.com (last updated Dec. 6, 2000) (on file with the University of Illinois Law Review).
30. The numbers are staggering. The International Data Corp. estimates that the Internet economy will reach $3 trillion by 2003. See Int'l Data Corp., IDC Expects the Worldwide Internet Economy to Exceed $1 Trillion by 2001, at http://www.idc.com/Data/Internet/content/NET110399PR.htm (Nov. 3, 1999) (on file with the University of Illinois Law Review). As one commentator noted, this figure "may well translate into an ever-increasing demand for domain names." Latifa Mitchell-Stephens, ICANN Expands Domain Name Landscape, E-COMMERCE, Mar. 2000, at 1 (on file with the University of Illinois Law Review).
31. See generally JESSE DUKEMINIER & JAMES KRIER, PROPERTY 14-15 (4th ed. 1998) (emphasizing the importance of the concept of first occupancy or possession).
unfortunately, in the rush to allocate domain names to first comers, policy makers completely ignored the obvious tension between this rule of appropriation and trademark protection. For a modest fee of $70, any legal entity can register any previously unregistered domain name it desires; no other restrictions apply. As a result, cyberprospectors could register for themselves the trademarks of many established companies and even famous individuals. Slowly getting a grip on the new commercial reality, those businesses are forced to choose among three undesirable options: (1) negotiate a consensual transfer of the domain name; (2) litigate the matter; or (3) adopt a brand-new domain name. I discuss these options in reverse order.

A. Creating a New Domain Name

The option of adopting a new domain name is highly unattractive to most businesses. From the vantage point of trademark owners, this strategy implicates two types of costs—both of them quite substantial. The first is the cost of establishing a new domain name; the second is the cost of ceding control of a trademark to a third party.

Establishing a new domain name involves two distinct, yet related, challenges: finding an appropriate domain name and introducing it to the market place. Finding a fitting domain name is likely to be an extremely difficult task. For a domain name to serve its purpose—creating a means of communication with consumers—it must be associated with the company's products or image, and, in addition, it must be sufficiently easy to remember and use. The challenge of finding the proper name is exacerbated by the high rate of appropriation of domain names. If initially it was relatively easy to adopt substitute names, marketable names are now very difficult to find. Cybersquatters have already appropriated most valuable domain names, and businesses seeking to adopt a new name will in all likelihood have to negotiate a consensual agreement with the name's appropriator.

Even if the challenge of selecting a new name is successfully overcome, businesses engaging in this enterprise will have to bear the cost of introducing the new domain name to the market. Introducing a new domain name to the market typically necessitates massive expenditures on advertising in order to instill the new domain name in the consumer consciousness. It bears emphasis that the costs of familiarizing consum-

32. For example, Esther Dyson is a famous Internet guru who wrote numerous articles and books on the Internet. Yet, even she was deprived of the right to use her name as her domain name. Now the domain name <estherdyson.com> cannot be registered. Other celebrities who were confronted with a similar problem include Brad Pitt, Elton John, and Courtney Love. The names of the deceased Kurt Cobain and Elvis Presley have also been appropriated. See Howard Siegel & Steven R. Doran, Chasing Down Cybersquatters Who Register Celebrity Domain Names, 15 No. 12 ENT. L. & FIN. 1 (2000).

33. To the best of my knowledge, very few businesses, if any, elected the third alternative, at least initially.
ers with a new domain name that is different from, and often unrelated to, the company's trademark may be much higher than the cost of establishing the trademark itself. In fact, consumers' familiarity with the trademark makes it more difficult for them to accept the new domain name, as well as to adjust to the fact that they cannot use the trademark to reach the company's website. Furthermore, even if a company is successful in establishing a new domain name, it will still be disadvantaged vis-à-vis its competitors because this company will bear the additional cost of promoting both its trademark and its domain name in the future. A company whose domain name differs from its trademark foregoes the economies of scale that are available to companies that use their trademark as their domain name.

While the costs of establishing a new domain name are clearly substantial, the cost of ceding control of a trademark to a third party may prove to be even higher. Domain name appropriators may impose four types of costs on trademark owners. I enumerate those costs in the order of the severity of their impact on trademark owners.

First, the domain-name registrant may passively store the domain name and not use it at all. Doing so yields no positive returns to the domain-name registrant. Yet this strategy imposes a cost on the trademark owner as it prevents her from using an extremely valuable mode of communication in interacting with her customers. Furthermore, the inability of the trademark owner to use the mark in on-line commerce may frustrate customers and, at the margin, prod some of them to switch to other products and services. In a medium of commerce that is predicated on speed, in which the attention span of users is extremely short, any delay or friction may prove very costly.

Second, the domain-name registrant can use the domain name to generate revenues from advertising. This, for example, was how Brian McKiernan elected to use the vaunted domain name <newyorkyankees.com>. In this business model, the domain-name registrant operates an advertisement site that sells advertisement space to other business, with the domain name serving as bait to attract customers, or "eyeballs," to her site. In many cases, these customers will find themselves "trapped" or "mousetrapped" in the website, unable to exit without

34. The ability to bring customers speedily to one's website is key to success in e-commerce. As Carl Shapiro and Hal Varian point out, "the most popular Web sites belong to the search engines, those devices that allow people to find information they value and ignore the rest." CARL SHAPIRO & HAL R. VARIAN, INFORMATION RULES 6 (1999).


36. The term "eyeballs" signifies "visitors" in the cyberspace vernacular.
clicking on a succession of ads.\textsuperscript{37} The impact of this strategy to the trademark owner may be quite devastating. Customers who get mouse-trapped once may never again seek to transact on-line with the trademark owner whose site they could not find, choosing to transact instead with competing businesses whose sites could be located more readily.

Third, the domain-name registrant may use the domain name to operate a website whose content—typically adult entertainment—may sully the reputation of the trademark owner. Such a use threatened the reputation of an established toy manufacturer, Hasbro, Inc., which has held a forty-seven-year trademark on the children’s board game, “Candyland.” Hasbro was stunned to find out that Internet Entertainment Group, Inc. registered the domain name \texttt{www.candyland.com}, which it used as an on-line porn page.\textsuperscript{38} Such reputation-ruining uses are advantageous for the domain-name registrant for two main reasons. First, uses such as adult sites are often highly profitable. Second, uses that adversely affect the reputation of the trademark owner’s business pressure the trademark owner to buy back the domain name.\textsuperscript{39}

Finally, the domain-name registrant may operate a site directly competing with the business of the trademark owner. Returning to my original hypothetical, Charlie Klein, having secured the domain name \texttt{<ck.com>}, could start his own line of fragrances that would compete with those of Calvin. This strategy presents a direct challenge to the trademark owner’s market share and may result in a substantial drop in revenues for the trademark owner.\textsuperscript{40}

Given the costs and risks implicated by the option of establishing a new domain name, businesses will be extremely reluctant to surrender their trademarks to third parties for e-commerce purposes, and establish in their stead new domain names.

\section*{B. Initiating Legal Action}

The second strategy established businesses can adopt against domain-name registrants is to initiate legal action. Rather than cede their valuable marks, trademark owners can turn to the legal system in an at-

\begin{itemize}
  \item \textsuperscript{37} See Shields v. Zuccarini, 89 F. Supp. 2d 634, 635 (E.D. Pa. 2000) (enjoining defendant from operating websites that trapped or “mouse-trapped” visitors).
  \item \textsuperscript{39} Of course, this strategy may backfire and prompt the trademark owner to take legal action against the domain-name registrant in order to regain the right to use the domain name. This is what happened in the dispute between Hasbro and IEG. Hasbro sued IEG for trademark dilution and ultimately prevailed on its lawsuit. See Hasbro, Inc. v. Internet Entm't Group, Ltd., No. C96-130WD, 1996 WL 84853, at *1 (W.D. Wash. Feb. 9, 1996). I discuss the litigation option in greater detail elsewhere in this piece. See infra Part II.B.
  \item \textsuperscript{40} In such cases, the trademark owner may have a cause of action against the domain-name registrant for trademark infringement. It bears emphasis, however, that the domain-name registrant can diminish, and even eliminate, her potential trademark liability by adopting a distinct trademark. See supra notes 16–17 and accompanying text.
\end{itemize}
tempt to regain the lost goods. Trademark law and the law of torts provide trademark owners with an impressive arsenal of causes of action against domain-name registrants, the most salient of which are trademark infringement, trademark dilution, and unfair competition.41

Yet, the litigation option has several drawbacks. First, legal action is time-consuming and costly.42 Disputes over domain names may take years to resolve, and as long as the dispute lingers the domain name cannot be used. This problem renders the legal action option irrelevant to many businesses. Given the speed at which e-commerce develops, businesses can ill-afford delays in launching their on-line operations. A business that decides to engage in e-commerce needs a domain name right away. Thus, despite the pitfalls of this strategy, it makes more sense for most businesses to adopt a new domain name rather than wait for the legal system to determine the status of the disputed domain name.

Moreover, initiating legal action exposes established businesses to potential reputational harms. In this context, the public often views the domain-name registrant as a David fighting a Goliath, and in the best tradition of American sports, it sides with the domain-name registrant. The dispute between eToys and Etoy is a case in point.43 eToys, the Web’s leading toy retailer, resolved to bring a trademark infringement suit against Etoy, a European group of conceptual artists, for using a confusingly similar name to that of eToys. Of particular concern to eToys was the fact that Etoy’s website contained profane language and violent graphic images. However, eToys was forced to reverse its decision to seek legal action after they received “‘lots and lots of communications that urged [them] to find a way to coexist with Etoy.”’44

In other cases, the reputational harm may come not from the public, but from the domain-name holder who attempts to raise public support.

41. A claim of trademark infringement requires a showing that the allegedly infringing use will likely cause consumer confusion. See 15 U.S.C. § 1114(1) (1994 & Supp. IV 1998). A claim of trademark dilution requires a showing that the challenged use “dilutes” the value of a trademark. See id. § 1125(c)(2). Finally, an unfair competition claim arises whenever a person, in a commercial setting, makes false or misleading representations as to the origin of goods and services or a fact, and as a result consumer confusion is likely to occur. See id. § 1125(a)(1). For a review of the case law prior to November 1999, see David Yan, Note, Virtual Reality: Can We Ride Trademark Law to Surf Cyberspace?, 10 FORDHAM INT’L PROP. MEDIA & ENT. L.J. 773, 795–803 (2000).

Ironically, none of the traditional causes of action is readily applicable to warehousers, who characteristically do not use the names they register. Faced with this problem, the court in Panavision Int’l, L.P. v. Toeppen, 141 F.3d 1316 (9th Cir. 1998), went to great lengths to find for the plaintiff on a trademark-dilution claim. Stretching the conventional meaning of dilution, the court established the defendant’s practice of selling domain names back to the relevant trademark owners constituted a commercial use. See id. at 1326–27.


A smear campaign against the trademark owner is a potent defense strategy available to domain-name registrants. *Shields v. Zuccarini* provides an extreme example of this strategy. In this case, the plaintiff, Shields, a famous cartoonist, brought a lawsuit against the defendant, Zuccarini, claiming various violations of his intellectual property rights.\(^5\) In response to the lawsuit, the defendant posted a "political protest" on the five websites he owned, alleging that plaintiff, in his cartoons, subversively incites kids "to join in the killing and mutilation [of animals]."\(^6\) Furthermore, he presented himself as the defender of the public who would go to great lengths to protect innocent children, this notwithstanding the fact that he registered several sexually explicit domain names.\(^4\) Although Shields ultimately prevailed in court, he, no doubt, suffered a reputational harm as a result of his decision to litigate.\(^3\)

**C. Negotiating a Consensual Transfer**

The third, and final, option available to trademark owners who seek to regain control over a domain name is to negotiate a voluntary transfer. At first glance, it would appear that disputes over domain names lend themselves to Coasean bargaining. There are only two parties involved, and the cost of negotiating is low.\(^5\) Alas, the existence of just one seller and one buyer raises the problem of "bilateral monopoly."\(^5\) In bilateral monopoly cases, the price of the transaction subject cannot be determined by reference to the market price or any other external pricing mechanism.\(^5\) Instead, the price of the transaction depends on the relative bargaining positions and bargaining skills of the parties to the transaction.\(^5\)

When the price of the transaction is not readily ascertainable, each of the parties to the negotiation will try to capture the lion's share of the bargaining surplus by strategically shading her offer. Consider the dispute between Ivan Wong and Morgan Stanley Dean Witter & Co. (MSDW) over the domain name <msdwnline.com>. MSDW offered Wong $10,000 for the domain name, an offer that struck Wong as ridiculously low.\(^4\) In his response to the offer, he indicated to MSDW that, in his valuation, the coveted domain name is worth hundreds of thousands
of dollars.\textsuperscript{55} Not surprisingly, the negotiation broke down, and legal action ensued.\textsuperscript{56}

But which valuation was correct? Which party is to be blamed for the impasse? As is the case with all bilateral monopoly situations, there is no way to know. The trademark owner is, in most cases, the only possible buyer of the domain name. Consequently, the price of the domain name equals the value the trademark owner assigns to the disputed name.\textsuperscript{57} Yet, this information is unknown to, and unverifiable by, the domain-name holder. The informational conundrum is further complicated by the fact that the trademark owner can often use alternative, albeit inferior, domain names. For example, MSDW could use the name <msonline.com>—instead of <msdwnline.com>—as its domain name. Thus, the price of a domain name is essentially the difference between the value of the disputed name to the trademark owner and the value of the next available alternative.\textsuperscript{58} But the domain-name registrant cannot access this information, and has no way of finding it out.

In this informational haze, the domain-name holder is highly likely to overstate her claim. Two cognitive biases are responsible for this result. The first is known as the "endowment effect."\textsuperscript{59} The second is "excessive optimism" regarding the probability of hoped-for events.\textsuperscript{60} The endowment effect causes persons to overvalue their entitlements. Accordingly, in the present context, the asking price of the domain-name holder will be higher than the objective value of the name. Furthermore, the excessive optimism heuristic will prompt the domain-name owner to overly discount the probability of a negotiation breakdown. The combi-

\textsuperscript{55.} See id.

\textsuperscript{56.} See id.

\textsuperscript{57.} In principle, the domain-name registrant can also try to sell the domain name to the trademark owner's rivals. However, I am not aware of any real world cases involving this strategy.

\textsuperscript{58.} This determination is further complicated by the fact that many of the close substitutes of a domain name have often been appropriated as well, and the price of those substitutes may only be determined through negotiation with the appropriators.


nation of these biases provides a powerful explanation for the frequent bargaining failures we witness in this context.

In sum, none of the three alternatives available to the trademark owner adequately addresses her plight. All three alternatives create uncertainty, implicate considerable costs, and are incapable of resolving the underlying dispute in a timely fashion. The failure of conventional legal and market mechanisms adequately to resolve disputes over domain names necessitates a new approach to the problem.

III. THE LIMITED EFFECTIVENESS OF EXISTING SOLUTIONS

The shortcomings of the three alternatives discussed—establishing a new domain name, taking legal action, and negotiating a voluntary transfer—have led established businesses to seek innovative legal and institutional solutions to alleviate their plight. The search has resulted in the enactment of two new legal mechanisms: The Anticybersquatting Consumer Protection Act (ACPA) of 1999, and ICANN's Rules for Uniform Domain Name Dispute Resolution Policy.

A. The Anticybersquatting Consumer Protection Act

The ACPA became law on November 29, 1999. It was enacted to accomplish three goals: “[1] protect consumers and American businesses . . . [2] promote the growth of online commerce, and . . . [3] provide clarity . . . for trademark owners.”61 The main “evil” targeted by the ACPA is the practice of “bad-faith and abusive registration of distinctive marks as Internet domain names with the intent to profit from the goodwill associated with such marks—a practice commonly referred to as ‘cybersquatting.’”62 To contain this practice, the ACPA forbids the bad-faith registering, trafficking, or use of a domain name identical or confusingly similar to a distinct or famous trademark.63

The ACPA requires courts to make three determinations. First, the court has to determine whether the mark lying at the heart of the dispute was distinct or famous at the time the domain name was registered.64 Second, the court must determine whether the domain name is identical

62. Id.; see also Sporty's Farm, L.L.C. v. Sportsman's Mkt., Inc., 202 F.3d 489, 495 (2d Cir. 2000).
64. 15 U.S.C.A. § 1125(d)(1)(A)(i) enables a cause of action against a person who, in bad faith, "registers, traffics in, or uses a domain name that" is "identical or confusingly similar to" a mark that is (i) "distinctive" or (ii) "famous" at the time the domain name is registered. Subsection 1125(d)(1)(A)(i)(II) provides a cause of action in two limited situations. Under this subsection, a suit can be brought against a person who registers a domain name that is "a trademark, word, or name protected by" 18 U.S.C. § 706 (protecting the sign of the Red Cross), or 36 U.S.C. § 220506 (protecting the name, symbol, emblem and words associated with the “United States Olympic Committee”). 15 U.S.C.A. § 1125(d)(1)(A)(ii) (West Supp. 2000).
or confusingly similar to the mark.  

Finally, the court must decide whether the domain-name registrant acted in bad faith, with an intent to commercially exploit the similarity between the domain name and the mark.  

Of these three determinations the last one is clearly the hardest. Bad faith and intent are subjective motivations unknown to external observers. Thus, to facilitate the task somewhat, the act lists nine factors to be considered by the court when determining the intent of domain-name registrants. These factors include: (1) the intellectual property of the registrant in the disputed name; (2) the personal and legal affiliation of the registrant to the name; (3) prior use of the name by the registrant in connection with goods and services; (4) the registrant's bona fide non-commercial or fair use of the mark in her site; (5) the registrant's intent to subvert the business of the trademark owner; (6) attempts by the registrant to transfer the name for financial gain; (7) provision of misleading contact information by the registrant at the time of registration; (8) "warehousing" by the registrant; and (9) the degree of distinctiveness of the disputed mark.  

However, the act then states that no bad faith should be found if the registrant "believed, and had reasonable grounds to believe that the use of the domain name was a fair use or otherwise lawful."  

If bad faith on the part of the domain-name registrant is established, the court "may order the forfeiture or cancellation of the domain name or the transfer of the domain name to the owner of the mark." In addition, the court has discretion to award the trademark owner up to $100,000 in statutory damages per each domain name found to be in infringement of the mark.  

B. The Rules for Uniform Domain Name Dispute Resolution Policy  

An alternative recourse available to a trademark owner is arbitration under the Uniform Domain Name Dispute Resolution Policy. The UDRP was adopted by ICANN on August 26, 1999, and is binding upon all ICANN-approved registrars, who must accept the UDRP to receive  

66. See id. § 1125(d)(1)(A)(i).  
67. See id. § 1125(d)(1)(B)(i).  
68. Id. § 1125(d)(1)(B)(ii).  
69. Id. § 1125(d)(1)(C).  
70. Id. § 1117(d). The statutory damages serve two purposes. First, they ensure that the trademark owner receives just compensation for the loss she suffered. Second, they serve a deterrent effect. The threat of losing $100,000 may induce domain-name registrants, especially risk averse ones, to settle cases rather than litigate them until the end.  
accreditation.\textsuperscript{72} Under the UDRP, disputes concerning domain names are submitted to an ICANN-approved dispute-resolution service provider,\textsuperscript{73} who appoints an “Administrative Panel” to determine the respective rights of the parties to the disputed name.

Although primarily enacted to address cybersquatting, the UDRP does not define cybersquatting; instead, it describes the types of disputes to which it applies. Paragraph 4(a) of the UDRP defines “Applicable Disputes” as disputes in which the respondent: (1) registered a domain name identical or confusingly similar to the complainant’s trademark or service mark; (2) has no legitimate interests in the domain name; and (3) appropriated and used the domain name in “bad faith.”\textsuperscript{74} These elements are cumulative, and thus the complainant-trademark owner must prove that all three are present for the UDRP to apply.\textsuperscript{75}

The UDRP then lists four factors that may support a bad-faith finding. Paragraph 4(b) provides that bad faith shall be inferred if the respondent domain-name owner: (1) has appropriated the domain name primarily to extract consideration from the trademark owner, or her competitor, in exchange for its transfer; (2) has repeatedly registered domain names to bar trademark owners from using their marks as their domain name; (3) has registered the domain name primarily for the purpose of disrupting the business of a competitor; or (4) has intentionally attempted to free-ride on the trademark owner’s goodwill by attracting confused consumers to her site.\textsuperscript{76} However, the UDRP then states that demonstrable preparation to use a domain name in connection with a bona fide offering of goods or services could defeat a bad-faith allegation.\textsuperscript{77}

As for remedies, in the case of a ruling for the trademark owner, the appointed panel may order the cancellation of the disputed domain name, or that the domain name be transferred to the trademark owner.\textsuperscript{78}

\section*{C. The Misguided Reliance on Good Faith}

Although both the ACPA and the UDRP are steps in the right direction, neither of them ultimately provides a satisfactory framework for

\begin{footnotesize}
\textsuperscript{72} See ICANN, Resolutions Approved by the Board Santiago Meeting, Aug. 26, 1999, at \url{http://www.icann.org/santiago/santiago-resolutions.htm} (last updated Aug. 28, 1999) (on file with the \textit{University of Illinois Law Review}). By March 2000, ICANN had accredited more than 90 registrars. See Mitchell-Stephens, supra note 30, at l.v.
\textsuperscript{73} See UDRP, supra note 14, ¶ 4-4(a). So far, ICANN approved four dispute resolution providers: WIPO, the CPR Institute for Dispute Resolution, eResolution, and the National Arbitration Forum. See ICANN Approved Providers List, at \url{http://www.icann.org/udrp/approved-providers.htm} (page updated Oct. 17, 2000) (on file with the \textit{University of Illinois Law Review}).
\textsuperscript{74} UDRP, supra note 14, ¶ 4(a).
\textsuperscript{75} See id.
\textsuperscript{76} See id. ¶ 4(b).
\textsuperscript{77} See id. ¶ 4(c).
\textsuperscript{78} See id. ¶ 4(i).
\end{footnotesize}
resolving disputes between domain name and trademark owners. Both solutions are vague, time consuming, and worse, neither of them guarantees efficient allocation of resources. In both cases, these flaws are attributable to one cause: reliance on the "good-faith" standard. Both the ACPA and the UDRP focus on the good, or bad, faith of the domain-name registrant in determining the entitlement to the domain name. Good faith, however, is a notoriously fuzzy determinant, unobservable to third parties. To overcome this problem, both the ACPA and the UDRP focus on various external indications that undermine or support good faith. But this strategy fails to carry the day.

Consider the ACPA, first. It lists nine factors to be considered by the courts in determining good faith. This enumeration is a perfect example of the adage "more is less." As is often the case with multifactor lists, the factors enumerated are highly likely to conflict with one another in particular cases. For example, how should a court decide a case in which the domain-name registrant "warehoused" multiple domain names, yet, the particular name at the heart of the dispute represents her last name? Which factor should be given more weight, if all the other factors are moot? One can think of many other examples, involving any number of factors pulling in opposite directions. Yet, the act provides no guidance as to how such conflicts should be resolved. To muddy the waters further, after listing the nine factors courts must consider in determining bad faith, the ACPA states that no bad faith should be found if the registrant "believed and had reasonable grounds to believe that the use of the domain name was a fair use or otherwise lawful." The balancing test, in which the ACPA requires courts to engage, makes it very difficult for the parties to determine their respective entitlements to the domain name ex ante, forcing them to rely on adjudication as the primary means of ascertaining their rights.

The UDRP fares only marginally better on this count. Although the UDRP contains a shorter list of external factors attesting to the intent of the domain-name registrant, the four-factor list it provides does not escape the problem of internal conflicts. For example, it is impossible to discern whether a registrant who registered her legal name did so to subvert the trademark owner's business, or for another, legitimate purpose. Consider again the hypothetical example of Charlie Klein who registers the domain name <ck.com>. Charlie's motivation might be benign or subversive—or most likely a combination of the two—but unless Charlie openly admits his motivation, it is impossible to discern his true motivation. Furthermore, under the UDRP, demonstrable preparation to use the name in trade creates a good-faith presumption. Although this provision clearly protects the reliance interest of the domain-name registrant, it is unclear how much reliance is necessary for the presumption to

arise. If very minimal preparation suffices, then any bad-faith allegation may be easily defeated. If the necessary reliance is more substantial, the UDRP induces wasteful reliance expenditures by domain-name registrants whose rights may be contested.

A second shortcoming of the ACPA and the UDRP is their inability to resolve disputes instantaneously. Both litigation and arbitration are time-consuming. The longer a domain name remains in the hands of the registrant, the greater the harm to the trademark owner, as well as to innocent Web-surfers who seek to reach the trademark owner's site. Moreover, the wait implicated by the ACPA and UDRP puts the trademark owner in a "commercial limbo." As long as the resolution process is in progress, the trademark owner cannot use the disputed name, but investing in a new name may prove wasteful should the disputed name be eventually restored to her. Worse yet, during this period, the trademark owner will lose sales to competitors whose domain names are identical to their marks.

Finally, and most importantly, due to their reliance on the good-faith standard neither the ACPA nor the UDRP guarantees an economically efficient allocation of domain names. Economic efficiency seeks to place assets in the hands of their highest value users at the least possible cost. From an efficiency standpoint, a domain name, like any other resource, should be allocated to the party who values it the most. Accordingly, in disputes over domain names, economic efficiency prescribes that the name be granted to the party who places a higher value on the name. Yet, because the good-faith standard focuses exclusively on the intent of the registrant, it completely disregards efficiency concerns. Assume that Irene, Bob, and Martha decide to launch an on-line music portal. For want of a better name, or at least so they allege, they register the domain name <IBM.com>. Clearly, the value of the domain name <IBM.com> to Irene, Bob, and Martha is a tiny fraction of its worth to IBM. Hence, depriving IBM of the right to use its trademark as its domain name is inefficient. Moreover, it is inequitable; after all, IBM invested enormous amounts of money in establishing its brand name and goodwill, and allowing the domain-name registrant to "free ride" on this investment is outright unjust. Yet, if Irene, Bob, and Martha registered the domain name first, IBM would find relief neither in the ACPA nor in the UDRP.80 Fortunately for IBM it controls the domain name <IBM.com>. But other established businesses that were not so lucky will discover that the existing legal solutions do not adequately protect them against sophisticated domain name "hijackers." Under both existing dispute-resolution mechanisms, the fact that the domain name is much more

80. Of course, IBM could try to buy back the domain name from Irene, Bob, and Martha, but for the reasons explained in supra Part II.C., postregistration negotiation is not a very promising option in the present context.
valuable to the trademark owner is irrelevant to the determination of the relative rights of the parties.\(^81\)

On top of it all, the solutions employed by the ACPA and UDRP are also problematic on fairness grounds. Both the ACPA and UDRP rest on the principle of property rule protection.\(^82\) Under both, either the domain-name registrant gets to retain the name, and the trademark owner gets nothing; or, the trademark owner gets the domain name and the domain-name registrant receives nothing.\(^83\) In other words, both solutions rely on a binary, all or nothing, regime, with the loser receiving no compensation.\(^84\) This, however, seems inequitable, given that both the trademark owner and the domain-name registrant who uses the name in trade independently contribute to the value of the domain name. Thus, a liability rule regime that entitles the losing party to some sort of compensation would effect a more equitable result.

The shortcomings of the existing legal solutions call for an alternative resolution mechanism. In the next part, I will show that auction theory holds a superior solution to the challenge of domain name allocation, one that avoids the pitfalls of the good-faith standard and is compatible with the nature of e-commerce.

IV. AN AUCTIONING METHOD FOR REALLOCATING DOMAIN NAMES

Auctions are "stylized markets with well-defined rules."\(^85\) For this reason, auctions provide an effective vehicle for overcoming the problem of asymmetric information. Properly designed, the auctioning process can induce auction participants to reveal their true valuations of the auc-

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81. A recent dispute involving the celebrated artist "Sting" is a case in point. In a recent arbitration proceeding, Sting was deprived of the right to use his stage name as his domain name, after Michael Urvan, from Marietta, Georgia, registered the name <sting.com> as the domain name of his gambling site. The WIPO arbitration panel ruled that Sting failed to show bad faith on the part of Urvan. See Sumner v. Urvan, No. D2000-0596 (WIPO Arbitration and Mediation Center, Administrative Panel Decision, July 24, 2000), available at http://www.sting.com/WIPO_Decision.asp (on file with the University of Illinois Law Review).

82. See Guido Calabresi & A. Douglas Melamed, Property Rules, Liability Rules and Inalienability: One View of the Cathedral. 85 HARV. L. REV. 1089, 1092 (1972). Under the Calabresi-Melamed framework, property-rule protection forces potential "takers" to secure the consent of the entitlement owner, and thus, allows her to determine the price of her entitlement. Liability-rule protection, by contrast, allows potential "takers" to avail themselves of other people's entitlements as long as they are willing to pay a collectively determined price that is usually set by a court, a legislator, or an administrative agency. See id.

83. If the losing party wishes to buy the domain name back, she will have to pay the asking price of the winner.

84. The ACPA empowers the court to order the cancellation or transfer of the disputed domain name. In addition, it authorizes the court to award, at its discretion, between $10,000 and $100,000, in statutory damages, and attorney's fees to the prevailing party. The remedies under the ICANN's UDRP are limited to cancellation and transfer; no damages or attorney's fees can be awarded. See Richard J. Grabowski, Adventures in Cyberspace, Strategies for Securing and Protecting Your Firm's Domain Name, 17 NO. 11 LEGAL TECH. NEWSL. 7 (2000).

85. ERIC RASMUSEN, GAMES AND INFORMATION: AN INTRODUCTION TO GAME THEORY 293 (2d ed. 1994).
tion object, and thereby ensure efficient allocation of resources. This ability makes auctions especially attractive in thin market settings, in which prices are not readily ascertainable. Given the lack of a natural market for domain names, and that postregistration bargaining raises the problem of bilateral monopoly, the application of auction theory to disputes over domain names is especially fitting. The remainder of this part is divided into two sections. In section A, I will introduce and explain the auction concepts that are relevant to my recommended proposal. Then, in section B, I will construct an auctioning mechanism that effectively resolves disputes over domain names.

A. Terminology and Typology

Auctions are amenable to several classifications, eight of which are important for the purpose of this essay. First, auctions can be classified by the way the value of the auctioned object is determined. According to this classification auctions come in three varieties: private-value auctions, common-value auctions, and correlated-value auctions. In a private-value auction, each bidder knows precisely how much she values the auctioned object, and her valuation does not depend on those of other bidders. A bidder's valuation would be unaffected by learning of other bidders' valuations. An example of a private-value auction is an art auction in which the buyers intend never to resell. In a common-value auction, by contrast, the "objective" value of the object is identical for all bidders, but the valuations of the bidders differ as they reflect the private information available to each bidder. An example of a common-value auction is bidding on an oil lease. The value of the lease depends on the amount of oil in the reservoir. Each bidder has an estimate as to what that amount might be. Yet, this estimate may change in response to informational signals from other bidders. Finally, in a correlated-value auction, the valuations of the bidders are correlated, but the values they ascribe to the auctioned object may differ. As a practical matter, all auctions in the real world are correlated-value.

A second way to classify auctions is procedural, that is, by the way the bidding process occurs. This classification breaks up auctions into

86. For a general discussion, see id. at 293–95; Paul Klemperer, Auction Theory: A Guide to the Literature, 13 J. ECON. SURV. 227, 331–36 (1999).
87. See RASMUSEN, supra note 85, at 293–94.
88. See id.
89. See id. at 294.
90. As Rasmusen points out, "[i]f there were resale, a bidder's valuation would depend on the price at which he could resell, which would depend on other players' valuations." Id.
91. See id.; Klemperer, supra note 86, at 231.
92. See RASMUSEN, supra note 85, at 294.
93. The common-value auction is a considered a special case of a correlated-value auction. Thus, the existence of common-value auctions does not undermine the accuracy of the observation. See id.
two general types: open-bid auctions and sealed-bid auctions. In an open-bid auction, the bidders announce their bids publicly. The typical example of an open-bid auction is an oral auction. The open bidding provides bidders with updated information about their peers' valuations, enabling each bidder to react to this information by adjusting her bid. In a sealed-bid auction, each bidder has only one chance to bid and revise the bid amount in response to the bids of others. Accordingly, the informational basis of the bidders in a sealed-bid auction is different from that of the bidders in an open auction.

A third way to classify auctions is by the price the winner of the auction has to pay. This classification applies only to sealed-bid auctions, dividing them into first-price, and second-price auctions. In a first-price, sealed-bid auction, the highest bidder wins the auction and pays her actual bid. Thus, her best strategy is to try an outbid by the smallest margin possible the second highest bidder. In a second-price, sealed-bid auction, also known as a "Vickrey auction," the highest bidder wins the auction but pays the second highest bid. In this type of auction, a bidder's best strategy is to bid her true valuation because the price she might eventually pay does not depend on her bid; the bid only determines who wins the auction. Thus, a Vickrey auction eliminates the incentive to bid strategically, and induces truthful bidding.

Finally, it is useful to distinguish between "standard auctions" and "internal auctions." In a standard auction, a seller auctions off an object, and a group of buyers competes for the right to buy it. In principle, any person can bid on the auctioned object, with the highest bidder receiving the object if her bid exceeds the asking price. The roles of "seller" and "buyer" are predefined and immutable. In an internal auction, by contrast, the group of participants is limited to persons who have a stake in, or a potential entitlement to, the auction object. For example, the group of eligible participants may be comprised of the partners in a partnership that is about to be dissolved and sold; a polluter and a

94. See id. at 294–98 (dividing auctions by four different rule sets: (1) English (first-price, open-cry); (2) First-price, sealed-bid; (3) Vickery (second-price, sealed-bid); and (4) Dutch (descending)).
95. See Klemperer, supra note 86, at 231–32.
96. See id. at 232.
97. See RASMUSEN, supra note 85, at 295–97 (distinguishing between first-price, open-cry and sealed-bid auctions and second-price, sealed or "Vickery" bids); see also Klemperer, supra note 86, at 232–33.
98. William Vickrey, after whom the second-price, sealed-bid auction is called, has been one of the pioneers of the theoretical study of auctions. His article, Counter speculation, Auctions, and Competitive Sealed Tenders, is considered a classic. William Vickrey, Counterspeculation, Auctions, and Competitive Sealed Tenders, 16 J. Fin. 8 (1961).
99. It is important to note that there is no dominant bidding strategy in a sealed-bid, first-price auction. See R. Preston McAfee & John McMillan, Auctions and Bidding, 25 J. Econ. Literature 699, 708 (1987).
100. See id. at 701–03.
nearby neighbor who seeks to enjoin the pollution;\textsuperscript{102} and a domain-name appropriator and a trademark owner who claims the name. Furthermore, because all participants have some claim to the auctioned object, it is unclear, ex ante, who the buyer is and who the seller is. Initially, each participant is both a potential buyer and a potential seller, and only at the end of the auction does it become clear who sells and who buys. At that point, the winner of the auction gains an unqualified entitlement to the auctioned object, free of any claims from other auction participants.\textsuperscript{103}

B. The Mechanism Design

To qualify for the auction, a domain-name owner will have to satisfy two prerequisites. First, she will have to show that she has registered not more than three domain names.\textsuperscript{104} Second, she will have to show that she is actually using the name in e-commerce.\textsuperscript{105} These preliminary requirements are designed to screen out "warehousers" and other free riders who appropriate domain names for the sole purpose of selling them back to trademark owners. Such transfers do not create any new social value; on the contrary, they impose a cost on society by impeding commerce and fomenting litigation. Thus, nonproductive uses of domain names should be discouraged. Only domain-name registrants who use the name in e-commerce, and thereby put the domain name to a productive use, should be entitled to bid on the domain name. In all other cases, the domain name should simply be returned to the trademark owner at no cost.\textsuperscript{106}

Once the pool of the legitimate domain owners has been established, a trademark owner seeking to reclaim a domain name would be entitled to force the domain-name owner into a sealed-bid bilateral auc-

\begin{footnotesize}
\begin{enumerate}
\item[103.] For discussion of the potential efficiency effects of auctions without predefined sellers, see William Samuelson, \textit{A Comment on the Coase Theorem}, in \textit{Game-Theoretic Models of Bargaining} 321, 325-31 (Alvin E. Roth ed., 1985). Samuelson posits that preassigning the entitlement to any bidder may adversely affect the efficient allocation of resources, and proposes instead a mechanism in which the bidders are "joint owners of the right." \textit{Id.} at 331.
\item[104.] The purpose of the limitation is to ensure the exclusion of warehousers. Exceptions should be made in cases involving a larger number of related domain names, for example, variations on the same name. Admittedly, the proposed number (three) is arbitrary, and thus the auction administrator should be granted discretion to deviate from this rule in appropriate cases.
\item[105.] Naturally, the first requirement should be modified in cases involving a domain-name registrant with several businesses. In such cases, the rule should be one domain name per business.
\item[106.] To be sure, one could argue that the trademark owner who receives the domain name should reimburse the domain-name registrant for the registration fees—currently \$70 for two years. However, to deter the practice of warehousing, no reimbursement should be granted in this case. In fact, it may even be necessary to impose a somewhat greater penalty on warehousers to discourage them from engaging in this activity.
\end{enumerate}
\end{footnotesize}
The auctioning process should proceed in accordance with the following rules:

(a) Each bidder will post a bond in the amount of her bid.
(b) If the trademark owner submits the higher bid, she will get the domain name for a price equal to the bid of the domain-name registrant.
(c) If, by contrast, the domain-name owner submits a bid equal to, or higher than the bid of the trademark owner, she will retain the domain name but she will have to pay the amount of her bid to the trademark owner.
(d) At the end of the auction, the domain name will become inalienable for a period of two years.

The proposed mechanism rests on the assumption that the domain name is considerably more valuable to the trademark owner than it is to the domain-name registrant. Furthermore, it presupposes that the domain-name registrant, as a self-interest maximizer, will seek to exploit the considerable disparity in value by trying to appropriate the lion's share of the difference in value. Although the average trademark owner will treat the auction as a "private-value auction," the domain-name registrant will view the auction as a "correlated-value auction." And, although generally the distribution of the bargaining surplus between the parties is not a concern per se, if the domain-name registrant mistakenly overplays her hand and outbids the trademark owner, efficiency will be harmed. To counter this possibility, the mechanism design subjects the parties to different bidding rules. The result is an asymmetric bilateral auction.

Rule (a) is intended to assure the parties' ability to pay the amounts they bid. This concern is particularly pertinent in the case of the domain-name registrant who will exaggerate her bid in the absence of a bond requirement. Without a bond requirement, the domain-name registrant could bid any amount, and then, if the outcome of the auction were not to her liking, claim that she cannot afford to pay. The bond require-
ment alleviates this concern, and thus, lends credibility to the bidding process. Furthermore, the bond requirement may force many domain name appropriators to seek external validation of the valuations prior to bidding. Given that the amounts involved are quite considerable, many domain-name owners would have to borrow money from financial institutions to satisfy the bond requirement. This, in turn, would provide them with the opportunity to consult financial experts about the value of the name.

Rule (b) is crafted to induce the trademark owner to bid truthfully. Effectively, this rule turns the auction into a Vickery auction for the trademark owner, thereby guaranteeing her that her bid will have no effect on the price she pays if she wins. In the case of domain names, the efficient allocation of resources may be thwarted either because the domain-name owner strategically overrepresents her valuation, out of hope of winning a disproportionate share of the bargaining surplus, or because the trademark owner strategically underrepresents her valuation out of fear of surrendering too much of the bargaining surplus. Rules (a) and (c) intend to deal with the former risk; rule (b) is designed to deal with the latter. Because in a Vickery auction the winner does not pay the amount she bid but rather the second highest amount, the trademark owner's dominant strategy is to bid her true valuation, and, in the likely case of a victory, pay the bid amount of the domain-name owner. Accordingly, if Tammy, the trademark owner, bid $100,000 (her true valuation), and Diana, the domain-name registrant, bid $30,000, then Tammy will get the domain name for the price of $30,000.

Rule (c) aims at further restraining the ability of the domain-name registrant to bid strategically. Although the bond requirement forces the domain-name registrant to put her money where her bid is, it only partially restrains the ability of the domain-name owner to bid strategically. After all, if the domain-name owner believes that there is a substantial disparity in value between the parties, she will overrepresent her valuation to increase her payoff notwithstanding the bond requirement. While designing the auction as a Vickery auction for the trademark owner ensured truthful bidding by her, a similar tactic will not work for the domain-name registrant simply because the domain-name owner knows she is extremely unlikely to win. The goal of the domain-name registrant is not to try and win the auction, but rather to extract as high a payoff as possible by bidding strategically. Her bidding strategy will be to bid incrementally below the trademark owner. To execute this strategy, the domain-name owner needs to estimate accurately the valuation of the trademark owner. However, because the bidding process is conducted under imperfect information and the valuation of the trademark owner is unobservable private knowledge, the domain-name owner may overestimate the value of the name to the trademark owner and bid too high. Thus, this bidding strategy runs the risk of distorting allocative efficiency.
Rule (c), in combination with rule (d), counters the domain-name registrant’s disposition to shade up her bid by introducing a “winner’s curse” into the auction.111 Unless the domain-name registrant really values the name more highly, overbidding will result in her overpaying for a name she would be happy to sell to the trademark owner. The fear of having to pay the exaggerated bid in the case of a victory restrains the motivation of the domain-name owner to overbid. Admittedly, rule (c) will not induce the domain-name registrant to bid her private valuation—indeed, given that for the domain-name registrant this is a correlated value auction, there is no reason why she should.112 Importantly, however, it practically eliminates the risk of the domain-name owner mistakenly winning the auction.

To see this, consider the following example. Assume that Diana’s private valuation of the domain name she owns is $10,000. She estimates that Tammy’s valuation of the name ranges between $31,000 and $100,000, with equal distribution. Assuming risk neutrality and random drawing, and given rule (c), Diana’s best strategy is to bid $30,000, the amount that promises her the highest expected payoff;113 bidding a higher amount runs the risk of winning the auction, and thus, diminishes the expected payoff. If Diana is risk averse, the amount of her bid would be even lower.114

It is possible, of course, that the domain-name registrant would win the auction not because she mistakenly overbid, but, simply, because she is the higher-value user. In this case, awarding the domain name is the efficient outcome, and the price she pays would compensate the trademark owner for the latter’s contribution to the value of the name.

Finally, rule (d) preserves the integrity of the auction by rendering the domain name inalienable for two years at the conclusion of the auction.115 Without this rule, the domain-name holder could risk an unfavorable outcome at the auction, and rely on post-auction negotiations to secure a more propitious result. For example, if post-auction negotiation were possible, Diana could bid $99,000, win the auction, and then, try to sell the domain name to Tammy for $50,000. Rule (d) eliminates this

111. As I explain below, the “winner’s curse” is magnified by rule (d), which renders the outcome of the auction immutable for a period of two years.

112. However, the inability to force the domain-name holder to bid her private valuation reduces the incentive of the trademark owner to invest in the mark. In other words, the need to buy back domain names will lead trademark owners to invest less in their mark than they would otherwise.

113. I assume for the sake of simplicity that the bids must be in increments of one thousand.

114. The assumption of risk aversion is reasonable because only domain-name owners who use the name in commerce are eligible to bid (warehousers are excluded at the preliminary stage). The exclusion of warehousers implies that the domain-name registrants who qualify cannot effectively diversify away the risk of winning the auction, i.e., overpaying for the right to keep using the domain name.

strategy. The inability to transfer the domain name outside of the auction ensures the effectiveness of rules (a) through (c). Naturally, it also eliminates the prospect of additional transaction costs.

However, rule (d) does not render the domain name inalienable in perpetuity; it limits the inalienability period to two years. The two-year period is sufficiently long to deter excessive greediness on the part of the domain-name holder, yet it allows for the possibility that in the future the relative values of the parties may change sufficiently to warrant a different outcome.\textsuperscript{116} It is possible, for example, that two years after the auction, the business of the domain name's registrant will surpass the value of the trademark owner's business, and the former would like to buy the name back. In such a case, a second auction should be administered, but the rules should be changed to reflect the new reality.\textsuperscript{117}

In sum, the asymmetric internal auction I propose overcomes the problem of bilateral monopoly and promotes efficient allocation of resources. Furthermore, it accomplishes this at a minimal administrative cost: the auction consists of a single iteration after which bargaining is temporarily prohibited.\textsuperscript{118} The key to the effectiveness of the proposed mechanism lies in the utilization of asymmetric bidding rules, which disincentivizes strategic posturing, and induces the parties to strike a Pareto optimal deal: the winner gets the domain name, and the loser receives an amount in excess of her private valuation of the asset.\textsuperscript{119}

\textsuperscript{116} Admittedly, the two-year inalienability period is somewhat arbitrary. The inalienability period may be shorter (e.g., one year) or longer (e.g., three years), so long as it effectively deters excessive greediness on the part of domain-name holders, while allowing for change in the relative value of the domain name to the parties.

\textsuperscript{117} Because the second auction occurs in very different circumstances, I propose that the right mechanism design is a symmetric Vickery auction. However, if the trademark owner wins the auction, he should get the domain name for free. This is necessary because the domain-name owner may request a second auction only to get back at the trademark owner for depriving her of the name in the first auction.

\textsuperscript{118} These are the two advantages of my mechanism over that of Ayres and Balkin. Ayres and Balkin derive their mechanism from the possibility of reciprocal takings. Based on this insight, they construct an auction mechanism for allocating entitlements. Under their mechanism, the parties to a dispute are to enter a multistage internal auction, in which each party can raise her bid incrementally to surpass the bid of the other party. The party who made the last bid, i.e., the highest bidder, wins the auction and gets the entitlement. See Ayres & Balkin, supra note 102, at 707–16. First, because Ayres and Balkin's mechanism requires multiple reiterations it is more costly and time-consuming than the mechanism I propose. This is especially true if the bidding parties can take some time off between rounds to reassess their bidding strategies. As I already noted, expeditious resolution of disputes over domain names is particularly important because such disputes adversely affect innocent third parties, i.e., consumers and Web surfers. Second, because Ayres and Balkin do not require that the entitlement become inalienable at the end of the auction, their mechanism is prone to abuse in the present context. A party can intentionally overbid and then rectify the unfavorable result through post-auction negotiation. Importantly, the overbidding party will know after the auction stage the valuation of the other bidder and will thus be able to appropriate the entire bargaining surplus.

\textsuperscript{119} Recall that if the trademark owner loses she receives the bid of the domain-name holder, which is higher than what she bid. If, on the other hand, the domain-name registrant loses, her payoff will be higher than her private valuation of the name for the reasons explained above. See supra text accompanying notes 110–12.
Before concluding, I would like to address two potential challenges. One might question the necessity of an auction and propose, instead, that a superior way to attain efficient allocation of resources is simply to award the name to the trademark owner without even holding an auction. Because I assume that, on average, the trademark owner values the domain name more highly, granting her the entitlement will, on average, promote economic efficiency. This argument is flawed in three important respects. First, in some cases the domain-name holder's valuation may be higher than that of the trademark owner. In such instances, efficiency requires that the domain name be allocated to the domain-name holder. However, without an auction it is impossible to ascertain the true valuations of the parties. Second, if the trademark owner does not have to pay for the name, too many forced takings would occur. Exempted from the need to compensate, trademark owners will take domain names remotely similar to their mark and may even abuse their prerogative to quash smaller competitors. For example, under a rule that does not require compensation, Apple Computer will probably take all the domain names that incorporate the term "apple" because doing so is costless. The compensation requirement forces the trademark owner to internalize the costs that she would otherwise externalize on others. Finally, and perhaps most importantly, an uncompensated transfer of the domain name to the trademark owner probably violates the Takings Clause of the Fifth Amendment, and, therefore, is likely to be unconstitutional.

The second challenge to my solution concerns the wisdom of proposing an ex post rather than an ex ante solution to the problem of conflicting claims to domain names. The auction mechanism I construct in this subsection is a remedial measure, operating ex post to resolve disputes over domain names after they arise. One might object that a better solution to the problem may be to address the problem ex ante by designing a better registration process that will avoid the problem altogether. For example, trademark owners could have been awarded an automatic right to use their marks as their domain names, and no one else could register them. I focus on an ex post solution for two reasons. First, the cost of administering a registration process that would avoid disputes between trademark owners and domain-name registrants is likely to be prohibitive. To begin with, there is no comprehensive registry of all existing trademarks. Also, one has to bear in mind that even if trademark owners were given a preemptive right to register their marks as their domain names, confusingly similar names could still be registered. Second, and more importantly, the opportunity to adopt a better registration system is long lost. Millions of domain names have been registered under the less than perfect registration system currently in place.

120. See Jessica Litman, The DNS Wars: Trademarks and the Internet Domain Name System, 4 J. SMALL & EMERGING BUS. L. 149, 153 (2000) (discussing the problem of allocating domain names to trademark owners whose marks are identical or similar, e.g., Apple Computer and Apple Records).
This system, on account of its imperfections, has engendered a slew of disputes over domain names, and these disputes must be resolved. Thus, any ex ante measure must be supplemented by an ex post measure to resolve existing disputes.

C. Variants

So far, I have assumed that the trademark owner values the disputed name more highly than the domain-name registrant; or, put differently, that the value of the trademark owner's business exceeds that of the domain-name registrant's business. However, in the Internet economy this will not always be true. The assumption that established, traditional businesses are necessarily more worthy than younger Internet businesses is called into question by the new commercial realities. Dynamic Internet startups are often worth (at least for a while) substantially more than older trademarked business. While most of us automatically associate the trademark "amazon" with the on-line book distributor <amazon.com>, the trademark was first appropriated by a different Amazon, the oldest feminist bookstore in the U.S. Such cases, raise the concern of "reverse hijacking"; that is, the fear of trademark owners attempting to "extort" successful Internet businesses.

With a slight modification, my proposed auction mechanism can account for this scenario. If it is known that the domain-name registrant assigns a higher value to the name than does the trademark owner, rules (b) and (c) of the basic model should be reversed so that rule (b) would apply to the domain-name registrant and rule (c) to the trademark owner. This change can be effected by the auction administrator prior to the commencement of the auction. To decide which rules to apply, the auction administrator should look at the market valuations of the two bidding firms and then apply rule (b) to the company with the higher valuation and rule (c) to the one with the lower valuation.

This insight can be generalized. Assume that X and Y are involved in a domain name dispute, and that the value of X's business is higher than the value of Y's, such that $V_X > V_Y$. To reflect this, the auction rules should state as follows:

(a) Each bidder will post a bond in the amount of her bid.

(b) If X submits the higher bid, she will get the domain name for a price equal to the bid of Y.

(c) If, by contrast, Y submits a bid equal to, or higher than X's, Y will retain the domain name but she will have to pay the amount of her bid to X.

121. It is reasonable to assume that the two values, i.e., the value of the business and the value of the domain name to the business, are correlated.

122. See Litman, supra note 120, at 153.

123. The market valuations of the relevant businesses can be based on the value of the stock if the stock is traded and otherwise, financial reports and investment memos.
(d) At the end of the auction, the domain name will become inalienable for a period of two years.

Changing the auction rules, as suggested, affects the distribution of the “bargaining” surplus between the parties. While the original set of rules was inherently biased in favor of trademark owners, the modified rules avoid this systemic bias. Rather, from a distributive point of view, they give more protection to the party with the higher business valuation—be it the trademark owner or the domain-name registrant.124

Finally, to safeguard against abuse by big businesses, the proposed mechanism should only be employed when the disputed domain name is either identical, or strikingly similar to the trademark at issue.125 Adopting a more lax standard of similarity may expose the mechanism to abuse by big businesses that may assay to use the proposed auction mechanism to extract payments from small businesses by frivolously challenging their entitlement to their intellectual property. The point and purpose of domain names is to enable potential customers to locate websites easily and efficiently. There is no need to expand domain-name law beyond this. Standard trademark law provides trademark owners with ample ammunition to combat infringers, dilutors, and tarnishers.

D. A Cautionary Note

I would like to end this essay on a cautionary note. It bears emphasis that the solution I craft in this essay is intended to serve as a remedial, transition mechanism. It seeks to resolve disputes between existing trademark owners and domain-name holders. This may be accomplished by limiting the implementation of the auction, at least initially, to disputes involving trademarks and domain names that were established by a certain date, e.g., June 1, 2001. Future trademark owners can effectively sidestep conflict by selecting a previously unregistered domain name as their trademark, thereby assuaging the problem of splintered intellectual property rights. Also, the introduction of new Top Level Domains (TLDs), such as .firm and .store, should also help reduce the potential for future conflict by relieving to some extent the demand for the .com TLD.126

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124. Of course, if one aims to promote small businesses at the expense of larger ones, one can switch rules (b) and (c), so that rule (b) would apply to the lower-value business and rule (c) to the higher-value one.

125. “Striking similarity” exists when there are only minor variations between the relevant trademark and the domain name, for example, “kinko” and “kinkos.” It is important to emphasize that the striking similarity standard is much stricter than the similarity necessary to prevail on a regular trademark-infringement claim, let alone trademark dilution.

126. On November 16, 2000, ICANN announced its decision to introduce seven new Top Level Domains: .biz, .info, .name, .pro, .museum, .aero, and .coop. See Oscar S. Cisneros, ICANN: The Winners Are . . . , WIRED, Nov. 16, 2000, available at http://www.wirednews.com/news/politics/0,1283,40228,00.html (on file with the University of Illinois Law Review). As expected, the proposed change is not without its critics. For example, Karl Auerbach, a Cisco Systems researcher who was recently elected to the ICANN board “asserted that ICANN is trying to replace market competition, which
It is noteworthy, however, that if the internal auctioning mechanism developed in this essay will have proven successful, with some modifications, it may serve to resolve many other disputes concerning Intellectual Property. For example, it can be employed to settle disputes between junior and senior trademark holders, original patentees and improvers, and copyright owners and fair users.

V. CONCLUSION

Auctions provide a potent tool for overcoming the twin problems of private information and strategic posturing in negotiations. As such, auctions can be employed in a wide array of legal contexts, especially transactional ones. In this essay, I crafted an internal, sealed-bid auction with asymmetric bidding rules to resolve disputes over domain names. I demonstrated that the proposed mechanism enhances efficient allocation of domain names, as well as provides adequate compensation to the losing party. Because in internal auctions it is the parties who determine their payoffs, the loser is guaranteed an amount equal to, or in excess of, her own private value at the end of the auction. Thus, my proposed mechanism promotes allocative efficiency, without sacrificing fairness. In addition, the use of my proposal could effect a substantial reduction in dispute resolution costs, both in terms of money and time.

Due to their information-forcing property, one would expect auctions to be widely used in the information age; yet, insofar as the legal system is concerned, auctions remain extremely underused. Rather than exploring information-forcing mechanisms, legislators prefer to rely on long-standing concepts, such as good faith, even when the ability of these concepts to do the work is dubious. Relative to the existing solutions—the ACPA and UDRP—the implementation of my proposal could have: (1) improved the allocation of resources, (2) reduced dispute resolution costs, and (3) saved the cost of enacting the ACPA.

should determine which domains succeed and fail." Chris Gaither, Agency to Vote on Web Domain Names, N.Y. TIMES, Nov. 16, 2000, at C4. Furthermore, Economic Solutions, a St. Louis-based company that owns the rights to Belize's domain, .bz, requested a federal court to enjoin ICANN from issuing .biz on the ground that the similarity between the two names violates its intellectual property rights. Although the court denied Economic Solutions its request, the threat of additional lawsuits still looms large. See id.