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Domain Names, Globalization, and Internet Governance

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I. DOMAIN NAMES GENERALLY

A. Domain Names and Electronic Commerce

A form of property peculiar to the digital age, the domain name presents questions of particular appropriateness to this Symposium. At first blush, how we allocate rights over the exclusive right to use McDonalds.com may seem, to the uninitiated, trivial compared to other more ostensible digital age issues.¹ This attitude, of course, underestimates the stakes involved in fashioning a reliable and stable domain name system. Indeed, it is hardly an understatement to say that the ultimate administration and management of the system will determine in large part the nature and health of digital commerce and global communications.

The burgeoning conflicts over domain names reveal how the Internet has raised thorny—perhaps intractable—problems for the law of intellectual property. It has not only played havoc with the law of copyright, but also has engendered a number of confounding issues in the law of trademark. Some of the issues can be simply characterized as ordinary incidents of trademark infringement moved to cyberspace; others, like the domain name issue, result from digital age particularity.² One thing is clear—electronic commerce, and for that matter, all communications over the Internet, occupy an increasingly larger part of the world economy. With its ever expanding importance for

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^{1.} Issues include privacy and data protection concerns, electronic signature on contracts, and year 2000 compatibility, to name a few. These issues are explored in Symposium, Legal Issues in Cyberspace: Hazards on the Information Superhighway, 45 EMORY L.J. 869 (1996).

^{2.} For an overview, see Sally M. Abel, *Trademark Issues in Cyberspace: The Brave New Frontier* (last modified May 15, 1998) http://www.fenwick.com/pub/cyber>.

electronic commerce, unimpeded by national boundaries, the Internet will inevitably engender unlimited opportunities for trademark infringement on a global scale.³

One trademark-like issue tied to the global economy, and uniquely an Internet problem, concerns the regulation of domain names. Again, consistent with the theme of this Symposium, the domain name controversy concerns the interplay of globalization, intellectual property, and sovereignty.

B. Domain Names and Internet Governance

Inherently an issue of global dimension, the institutional structure of domain name regulation may well determine the future of Internet governance. Two critical and overlapping questions concerning domain names are involved. The first concerns the technical functioning of the system in expediting information accurately to an infinite number of locations. As a corollary, an effective system would provide certainty, stability, and efficiency in its management and administration. Second, the system must be one that establishes clear ownership rights to a domain name and minimizes conflict in ownership disputes. In sum, an effective domain name system will function properly from both a technological and management standpoint. It will also be one that creates an effective mechanism for dispute resolution when a domain name conflicts with the rights of trademark owners. Only then will such a system operate properly, maximizing dissemination of information on a global scale.

The two questions presented above—one inherently technical, the other primarily cultural—concern Internet standard setting. First, from a technological standpoint, the current domain system reveals much about the chaotic and jerry-built nature of cyberspace and its fragmented mode of governance. The domain name system, like the Internet itself, exists in a precarious state whose viability depends on the smooth workings of a few

^{3.} For articles examining the trademark issue, see Dan L. Burk, Trademarks Along the Infobahn: A First Look at the Emerging Law of Cybermarks, 1 RICH. J.L. & TECH. 1 (April 10, 1995) http://www.urich.edu/~jolt/v1i1/burk.html; Dan L. Burk, Trademark Doctrines for Global Electronic Commerce, 49 S.C. L. REV. 695 (1998); Kenneth Sutherlin Dueker, Trademark Law Lost in Cyberspace: Trademark Protection for Internet Addresses, 9 HARV. J.L. & TECH. 483 (1996); G. Peter Albert, Jr., Right on the Mark: Defining the Nexus Between Trademarks and Internet Domain Names, 15 J. MARSHALL J. COMPUTER & INFO. L. 277 (1997).

computers.⁴ The second question concerns how the domain system should be structured to reconcile a myriad of intellectual property laws in a world of nation-states and their enforcement within defined borders. This issue presents another classic Internet problem—one that may prove more difficult to resolve than that of technological standardization. It is a problem infused with national legal cultures involving a multiplicity of trademark laws around the world. This dimension of the domain name issue graphically illustrates the tension between territorially-based intellectual property law, on the one hand, and the new information technologies on the other. In short, the Internet is global; trademark law is local.

In this Article, I will review the development of the domain name controversy and the inadequacy of the current regulatory mechanism, which is a hodgepodge of governmental regulation superimposed on traditional territorially-based trademark law. I will examine some of the proliferating case law and the disruption that this law has caused in the efficient operation of a domain name system. I will then turn to proposals for change, the latest of which is the Clinton Green Paper⁵ and the subsequent Policy Statement.⁶ My goal here is to reflect on the process of decisionmaking in the Internet environment and how this relates to the management domain name system rather than to specify the ultimate detailed structure that will eventually evolve.

Of the several models of Internet governance, I will advocate a multilateral

^{4.} The precarious state of the Internet has received much media coverage and has caused governmental concern. See Frederic M. Biddle et al., One Satellite Fails, and the World Goes Awry, WALLST. J., May 21, 1998, at B1. This article refers to a computer the size of a pizza box, 1 of 13 that serve as address books for Internet traffic to ensure that information goes where it is supposed to be sent. In the summer of 1997, the company that controls Root Server A accidentally wiped out the critical address book. This glitch had spread across the network, eventually affecting 35% of computers worldwide.

^{5.} Improvement of Technical Management of Internet Names and Addresses: Proposed Rules, 63 Fed. Reg. 8826 (proposed Feb. 20, 1998) [hereinafter "Green Paper"]. The Green Paper was the first step in implementing the Clinton administration see Framework for Global Electronic Commerce (last modified Aug. 5, 1998) http://www.ecommerce.gov. In this Proposal the President directed the Secretary of Commerce to privatize the Domain Name System (DNS) in a way that would increase competition and encourage international participation. The proposed rulemaking published in the Federal Register on February 20, 1998, solicited public comment until March 23, 1998. To view notices and comments, see Management of Internet Names and Addresses (visited Oct. 18, 1998) http://www.ntia.doc.gov. The Green Paper proposed privatization of the management structure of Internet names and addresses and the creation of a not for profit corporation managed by a globally and functionally representative Board of Directors. The National Telecommunications and Information Administration (NTIA), an agency of the Department of Commerce, called for public comments on publication of the Green Paper in the Federal Register. On March 23, 1998, the comment period was closed. The Green Paper and commentary was followed by the "Statement of Policy."

^{6.} Management of Internet Names and Addresses: Statement of Policy, 63 Fed. Reg. 31,741 (June 10, 1998) [hereinafter "Statement of Policy"].

solution to the domain name controversy based on a realist-institutionalist concept of sovereignty⁷ which is largely consistent with current administrative proposals. I call this a realist approach because I believe that self-interest determines the behavior of States, that insecurity and rivalry reign, and that power is the final arbitrator in that rivalry.⁸ My approach is institutionalist—and pragmatic—because government has a positive, necessary, and inevitable role to play in the regulation of domain names. Moreover, governments are already involved in their regulation⁹ and will remain so. The U.S. government, for instance, has set up the operation of domain names, implemented the technical aspects of the system, and has authorized a registration process for them. However, the U.S. government is not alone in the regulation of domain names. Governments around the world are involved in their operation and registration.

In addition to its technical operation, government regulates the domain name system via trademark law. As applied to domain names, trademark law is a body of law that continues to proliferate worldwide. Thus, the government is present at all levels of the system and is here to stay.

The nature and extent of that governmental control, however, is a subject of current debate because many difficult details must still be resolved before establishing the most efficient form of domain name regulation. Clearly, resolution of the problem necessitates a multilateral solution whereby essential institutions materialize to create a technologically efficient system which also minimizes legal conflicts. I argue that the least government involvement is best. Whatever control is ultimately imposed should foster institutions in which market forces can operate, flourish, and eventually supercede governmental intervention.

^{7.} I am using the term "sovereignty" as defined in RESTATEMENT (THIRD) OF FOREIGN RELATIONS LAW OF THE UNITED STATES § 402 (1987):

[[]A] state has jurisdiction to prescribe law with respect to (1)(a) conduct that, wholly or in substantial part, takes place within its territory; (b) the status of persons, or interests in things, present within its territory; (c) conduct outside its territory that has or is intended to have substantial effect within its territory.

The question of net governance and sovereignty has developed a rich literature. See, e.g., David G. Post, The "Unsettled Paradox:" The Internet, the State, the Consent of the Governed, 5 IND. J. GLOBAL LEGAL STUD. 521 (1998).

^{8.} For a discussion of realism in international relations theory and its comparison with liberal international relations theory, see Anne-Marie Slaughter, *International Law in a World of Liberal States*, 6 EUR. J INT'L L. 503 (1995).

^{9.} See Timothy S. Wu, Cyberspace Sovereignty? — The Internet and the International System, 10 HARV. J.L. & TECH. 647, 665 (1997); see also Henry H. Perritt, Jr., Cyberspace and State Sovereignty, 3 J. INT'L LEGAL STUD. 155 (1997).

Within the cooperative framework of this multinational solution, the United States will play the most prominent role because it has achieved the most knowledge and experience in administering the system. However, the domain name system (like the Internet itself) transcends national boundaries. Its healthy development will depend on the degree to which it is unencumbered by interest groups or nations. Furthermore, its processes must be fair, transparent, and encourage competition. In this context, a multilateral representative body proposed by the Policy Statement that will coordinate the shape of the system is the best outcome for domain name management. This representative body, though established by government, should function independently from governmental control or interference in the daily operation of the domain name system.

II. WHAT ARE DOMAIN NAMES?

A. The Mechanics of Domain Names: Sending Information to the Right Place

A domain name is a significant part of an Internet address that determines where data packets are to be sent.¹⁰ To humans, domain names appear as words, but when a domain name is used on the Internet, it is translated into numbers. Users of the Internet only have to remember domain names, a much easier task than committing to memory a meaningless string of numbers. Each domain name corresponds to numeric Internet Protocol (IP) addresses, used by the Internet to transmit data. Every computer linked to the Internet must have a numeric address in order to be identified and located by others. The numeric Internet address functions like a street address or a telephone number. Most importantly, each address must be unique so that other computers on the network are able to locate and to route messages to the correct address.

As a matter of convenience, the numeric Internet address is assigned an alphabetical counterpart referred to as a domain name. The fact that domain names are expressed in alphabetical symbols confers on them their trademark

^{10.} A domain name is not unlike a "telephone number" on the Internet: it is an alphanumeric electronic address consisting of a mnemonic sequence of characters. One or more computers at any one location may receive a domain name that other computers or users then use to direct messages to the computer or group of computers at the named location. A domain name consists of a generic top-level domain (gTLD) (e.g., com, org, edu, gov, or net) assigned according to the entity requesting activation, and a second-level domain (SLD) of up to 22 characters. For an analysis of the domain name problem from a Canadian viewpoint, see Andrea F. Rush, *Internet Domain Name Protection: A Canadian Perspective*, 11 INTELL. PROP. J. 1 (1996).

significance. It is of course this trademark aspect that transforms the domain name beyond its mechanical function of expediting information to the right place. The existence of alphabetical domain names—so practical from a mnemonic standpoint—greatly complicates the administration of the system. As such, domain names have entered irrevocably into the world of trademarks. Because of their trademark quality, they facilitate electronic commerce. At the same time, their alphabetical existence engenders a set of legal issues intimately connected with complicated trademark laws existing within the territorial confines of nation-states.

The address embodied in a domain name consists of three parts: (1) the name of the user; (2) the name of the company or institution; and (3) an organization or country designation. The address begins with a designator, and everything following the symbol is called the domain name. 11 A domain name consists of a generic top-level domain (gTLD) (e.g., com, org, edu, gov, or net) assigned according to the type of entity requesting activation and a secondarylevel domain (SLD) consisting of twenty-two characters. The institution historically responsible for allocating top-level domain names is the Internet Assigned Numbers Authority (IANA). 12 IANA coordinates its activity through regional IP registries: American Registry for Internet Numbers (ARIN) in North America, Réseaux IP Européens (RIPE) in Europe, and Asia Pacific Network Information Center (APNIC) in Asia and the Pacific. In addition to the gTLDs, country code top-level domain names, e.g., fr (France) or au (Australia), identify foreign locations for a particular Internet address.¹³ Network Solutions, Inc. (NSI) controls the distribution of gTLDs under a contract with the National Science Foundation. NSI and a number of other organizations operate the root servers that contain the master listings of IP numbers.14

^{11.} For a description of the system, see Andy Johnson-Laird, *The Internet: The Good, the Bad and the Ugly* (visited Oct. 17, 1998) http://www.jli.com>.

^{12.} For information on the operation of IANA, see Internet Assigned Numbers Authority: About IANA (last modified Sept. 24, 1998) http://iana.org/aboutiana.html.

^{13.} For a comprehensive glossary of Domain name terminology and organizations, see Network Solutions, Glossary of Registration-Related Terms and Organizations (last modified Oct. 11, 1998) http://rs.internic.net/glossary.

^{14.} The root server system is a set of 13 file servers, which together contain authoritative databases listing all Top Level Domain Names (TLDs). At this time, NSI operates the "A" root server, that maintains the authoritative root database and replicates changes to other root servers daily. Other organizations operate the twelve remaining root servers. The U.S. government is involved in operating about half of them. For a diagram of the root server system, see *Internet Domain Name System Root Servers* (last modified Nov. 3, 1997) http://www.wia.org/pub/rootserv.html>.

B. Domain Names as Legal Hybrids: Technology and Trademark Law

Because they do not fit conveniently into the bifurcated world of copyright and industrial property (i.e., patent and trademark law), domain names are a hybrid form of intellectual property. On the one hand, they serve a useful purpose by designating where information is to be sent. On the other hand, they often indicate origin, and the public views them as trademarks. The two functions are fused in the same entity—the domain name. The problem is that domain names must be unique in order to function properly. If more than one organization on the Internet had the same domain name, confusion would occur when the network tried to identify and communicate with the computers within those organizations. This sets up an inherent and irreconcilable conflict with trademark law, which tolerates the use of identical marks by different persons so long as those uses do not cause confusion in the marketplace.

Thus, under trademark principles, the mark "Nationwide" could be used simultaneously by someone in the trucking industry and by another who is in the insurance business. By contrast, only one Nationwide.com can exist as a domain name. If there were two entities using the same name, the domain name system would not know which one of the IP addresses was associated with that domain name. Many of the proposals to reform the domain name system had attempted to reconcile the domain name system with that of trademark law. As we will see, no panacea currently exists to solve the conflict, nor will one ever develop. 16

To say that the system of domain name protection and registration is in flux, even disarray, is an understatement.¹⁷ Since 1993, NSI, under contract from the National Science Foundation, has administered the registration of domain names in the United States.¹⁸ NSI registers domain names on a first come, first serve basis and is not required to investigate potential intellectual property violations of third parties who might even have a federally registered

^{15.} See J.H. Reichman, Charting the Collapse of the Patent-Copyright Dichotomy: Premises for a Restructured International Intellectual Property System, 13 CARDOZO ARTS & ENT. L.J. 475 (1995) (elaborating on the legal hybrid concept).

^{16.} For a discussion of proposals to make the domain system more like trademarks see infra Part III.

^{17.} The problem of Internet domain names has spurred activity internationally. WIPO created a group of expert consultants that rendered a report on Dec. 17, 1996. See World Intellectual Property Org., Meetings of Consultants on Trademarks and Internet Names (visited Oct. 22, 1998) http://www.wipo.org/eng/internet/domains/tdnmcil.htm.

^{18.} NSI may be considered a quasi-governmental agency in that it receives funds from NSF, but it is a private company.

trademark identical to the domain name given to another.¹⁹ This has caused much controversy, and NSI policies on the persistent problems relating to the preemption of domain names have been revised several times. NSI has developed a dispute resolution mechanism to handle conflicts in domain names. The current guidelines permit a trademark owner to challenge another's registration and use of a domain name by presenting evidence of a federally registered U.S. trademark. Despite these dispute mechanisms, trademark litigation over domain names has continued to proliferate. Cases concerning domain names have been brought on two theories: likelihood of confusion under trademark law and action under state and federal antidilution law.²⁰ The former has proven to be a less than satisfactory alternative for trademark owners. By comparison, trademark owners, particularly against the activities of cybersquatters, have asserted antidilution actions with great success.

III. DOMAIN NAMES AND TRADEMARK LAW

A. The Appearance of the Cybersquatter and Others

Short simple indicators of origin, domain names always functioned as trademarks, educating and reassuring the consuming public that they are purchasing the right product for their particular needs. Despite the obvious trademark significance of domain names, Internet engineering groups have traditionally dismissed the trademark issue as a problem created by lawyers. They have maintained that domain names were never intended to bear this trademark dimension; they assume an attitude that ignores real world interests.²¹ Of course the truth is otherwise. A domain name, whether McDonalds.com or GE.com, has an important origin-indicating significance in the vastly developing world of electronic commerce.

For whatever reason, the current mechanism that allocates domain rights largely avoids the consideration of trademark interests. Most significantly, the registration system for domain names operates on a first come, first serve basis. Thus, it is possible for a third party to register a well-known domain, thereby

^{19.} The cost of registering a domain name is \$100 for the first 2 years, with annual renewal fees of \$50 per year thereafter. See Network Solutions, Domain Name Registration Overview (last modified Aug. 25, 1998) http://rs.internic.net/domain-info/domflow2.html.

^{20.} See infra notes 23-24, 28-29, 31-40, 42 and accompanying text.

^{21.} See Alexander Gigante, Blackhole in Cyberspace: The Legal Void in the Internet, 15 J. MARSHALL J. COMPUTER & INFO. L. 413, 426 (1997).

preventing the trademark owner who has established goodwill in that name from registering it. Companies then discover that their trademarks or service marks cannot be used as domain name²² addresses because someone else has already taken the name. Outraged at this development, trademark owners have sought relief under trademark law to remedy the problem.

Reasons vary as to why people will register a particular domain name. For the most part, an individual selects a domain name for entirely neutral or innocent reasons (i.e., an individual named "McDonald" may have always done business under his name). The process of domain allocation, however, has proven to be fertile ground for the opportunist who has reserved a domain name in bad faith. Such registrants, known as Internet squatters or cybersquatters have registered the name of a well-known company as an Internet address and then attempted to sell or lease the name back to the rightful owner. The process of allocating domain names inherently breeds conflicts of a trademark nature, irrespective of the reason why a certain party selected a domain name. Thus, any successful domain name regulation must serve two basic functions. First, it must provide a stable registration system that allocates unique domain names, avoiding conflict from a technical standpoint. Second, it must also have the ability to resolve disputes between conflicting claims to a domain name under trademark principles. The problem is that the current system was designed to accommodate only the first function.

B. Domain Names and Trademark Law

As domain names become ever more important to global commerce, it is hardly surprising that the use of trademark law has increased to resolve disputes over domain names. Unfortunately for trademark owners, traditional trademark law provided little relief in claims against third parties who appropriated their trademark as a domain name. Trademark law is based on the likelihood of confusion. Much to the chagrin of trademark owners, it is difficult to prove that the third party use of a trademark as a domain name causes consumer confusion. This hurdle relates to the inherently utilitarian nature of domain names. Because domain names are much like telephone addresses, trademark

^{22.} For a discussion of the case law involving domain names see *infra* notes 23-24, 28-29, 31-40, 42 and accompanying text.

owners have found the confusion hurdle difficult to surmount.²³ Frustrated by the limitations of traditional trademark law, trademark owners turned to state and federal antidilution law for relief. The antidilution concept was particularly attractive in the domain name context because the trademark owner did not have to prove a likelihood of confusion. Rather, the plaintiff had only to show that the third party intended to dilute the distinctive quality of the mark. The main drawback in bringing a dilution action was that the plaintiff must own a right in a famous mark. As we will see, the courts have strictly complied with this fame requirement.

C. Dilution Law

At the outset, state antidilution statutes have proven to be the most successful remedy against third party use of their mark as a domain name. Although state antidilution statutes provide a modicum of relief to aggrieved trademark owners, they offer uncertain and uneven protection.²⁴ The Federal Trademark Dilution Act of 1995 (FTDA)²⁵ (also known as section 43(c) of the Lanham Act) provided missing uniformity and certainty, offering a potent new remedy to trademark owners. Trademark owners gravitated quickly toward this new federal law which, like the state antidilution laws, ignored customer confusion and required only that the mark be famous according to criteria set forth under section 43(c) of the Lanham Act.²⁶ Courts have accommodated aggrieved trademark owners by reading the famous mark requirement expansively, allowing owners of marks that are hardly household names to obtain relief under the Act.

For these reasons, trademark owners of famous marks have looked to the FTDA as the remedy of choice in domain name disputes. Indeed, the legislative history of the Act seems to indicate that Congress intended the Act to provide relief against piracy of domain names on the Internet.²⁷ The dilution concept, despite its dubious theoretical basis, has quickly become entrenched in American law. One may conclude that the FTDA will continue to be the most successful basis for trademark owners in challenging domain name registrants.

^{23.} See Hasbro, Inc. v. Internet Entertainment Group, Ltd., 40 U.S.P.Q. 2d 1479 (W.D. Wash. 1996).

^{24.} See ActMedia, Inc. v. Active Media Int'l, Inc., No. 96-C3448, 1996 WL 466527, at *1 (N.D. Ill. July 17, 1996) (reservation of "Actmedia.com" violated Illinois Dilution Statute).

^{25. 15} U.S.C. § 1125(c) (1995-1997).

^{26.} *Id*.

^{27.} See 141 CONG. REC. S19,312 (daily ed. Dec. 29, 1995) (statement of Sen. Leahy).

One finds dilution applied readily from the outset when the defendant's use tarnishes the plaintiff's mark and particularly when the defendant is a cybersquatter. For example, in one early case, *Hasbro, Inc. v. Internet Entertainment Group, Ltd.*, the court granted a preliminary injunction against the defendants for diluting the value of Hasbro's CANDY LAND mark for a children's board game.²⁸ The defendants were using the mark CANDYLAND to identify their pornographic website and the domain name candyland.com to access it.²⁹

More and more cases are being filed under the FTDA, and the effect of the Act is already being felt, particularly by cybersquatters.³⁰ For example, in another federal dilution case, *Intermatic, Inc. v. Toeppen*, the court granted summary judgment against the use of the domain name Intermatic.com.³¹ The court found INTERMATIC to be a strong, federally registered mark used for over fifty years and therefore famous within the scope of the Dilution Act.³² Moreover, the defendant registered the Intermatic as its domain name for the purpose of selling it to plaintiff.³³ Finally, defendant's registration diluted plaintiff's mark because of its existence on the Internet site, and it adversely affected plaintiff's mark by destroying its advertising value.³⁴ The court not only enjoined defendant's use of the mark but ordered that the domain name be transferred to the plaintiff.³⁵ A second case involving a California man named Toeppen essentially reached the same result.³⁶ One particularly striking aspect of the Intermatic cases was the court's readiness to find that the mark was famous

Although the antidilution law has proven to be a successful remedy against the cybersquatter, its use has encouraged a wide variety of suits, catching in its net the innocent domain users as well. The fact is that dilution law under

^{28. 40} U.S.P.Q. 2d at 1480.

^{29.} Id.

^{30.} For a review of the cases, see Abel, supra note 2.

^{31. 947} F. Supp. 1227 (N.D. III. 1996), modified, No. 96-C1982, 1998 WL 102702 at *1 (N.D. III. Feb. 28, 1998).

^{32.} Id. at 1239.

^{33.} Id.

^{34.} Id. at 1240.

^{35.} Id. at 1241.

^{36.} See Panavision Int'l, L.P. v. Toeppen, 945 F. Supp. 1296 (C.D. Cal. 1996) (violation under the Federal Act; transfer of trademark ordered), aff'd 141 F.3d 1316 (9th Cir. 1998); American Standard, Inc. v. Toeppen, No. 96-2147, 1996 U.S. Dist. LEXIS 14451, at *1 (C.D. Ill. Sept. 3, 1996) (transfer of diluting domain name ordered under Federal act); Toys "R" Us, Inc. v. Akkaoui, 40 U.S.P.Q. 2d 1836 (N.D. Cal. 1996) (dilution by tarnishment found); ActMedia, Inc. v. Active Media Int'l, Inc., No. 96-C3448, 1996 WL 466527, at *1 (N.D. Ill. July 17, 1996) (state dilution action against domain name sustained).

section 43(a) of the Lanham Act is ill-tailored for the proper operation of a domain name system. A recent case illustrates the tension between the dilution concept and the domain name system.³⁷ Prince Sports Group, a large sporting goods company and owner of a federal registration for Prince challenged Prince P.L.C., a small U.K. computer information services firm, for rights to the domain name Prince.com.³⁸ The U.K. company had obtained the domain name two years earlier.³⁹ Prince Sports ultimately withdrew its lawsuit before a decision, but not before forcing Prince P.L.C. to defend the suit to protect a domain name based on its company name and mark of many years.⁴⁰ The *Prince* case reveals the potential chaos that exists under the national bodies of trademark law. An effective system of domain must somehow reduce this omnipresent conflict to provide users certainty, stability, and reliability.

Overall, resort to trademark litigation has hardly been a panacea for trademark owners in the domain name context. As stated above, one must prove likelihood of confusion in an action for trademark infringement. This is not always an easy proposition in domain name cases. Even though it has provided some spectacular victories for aggrieved trademark owners, dilution law has three main limitations. First, the overwhelming number of marks that do not enjoy famous mark status are excluded from its provisions. Second, those trademark owners who do have famous mark status must prove it. Finally, the FTDA will not come to the aid of a famous mark if plaintiff's mark became famous only after defendant's use.

This brief overview of legal remedies leads one to the conclusion that trademark and dilution law is ill-suited to the world of domain names. In a perfect world, some other mechanism should be developed to resolve disputes between the trademark and domain name worlds. Ideally, traditional trademark law and dilution law should have a limited but important role to play in settling domain name disputes. Indiscriminate use, however, of trademark and

^{37.} For a discussion of this unreported case (Prince P.L.C. v. Prince Sports Group, Inc.), see Dawn Osborne, *Domain Names, Registration & Dispute Resolution and Recent U.K. Cases*, 11 EUR. INTELL. PROP. REV. 644, 646 (1997).

^{38.} Id.

^{39.} *Id*.

^{40.} Id.

^{41.} See 15 U.S.C. § 1125(c) (1995-1997) (listing the 8 criteria to be used in determining whether a mark is famous and thus qualifies for protection under the Act).

^{42.} See, e.g., Gateway 2000, Inc. v. Gateway.com, Inc., No. 5:96-CV-1021-BR(3), 1997 U.S. Dist. LEXIS 2144, at *1 (E.D. N.C. Feb. 6, 1997) (preliminary injunction denied because it was not clear that plaintiff's fame predated defendant's use; moreover, defendant's use was made in good faith).

particularly dilution law could seriously undermine a smoothly working domain system. An institutional mechanism is needed to channel disputes outside the confines of trademark litigation in national courts.

What has caused the current problematic system is the focus on the cybersquatter example to justify the use of dilution law. The cybersquatter problem instead could be resolved either under traditional tort principles or some form of sui generis law that would prohibit such activity. One could easily determine whether the name relates to the registrant's legitimate business or was obtained merely for the purpose of selling it to the trademark owner. Like it or not, traditional trademark law and dilution law will continue to influence domain name litigation. Accordingly, these bodies of law will have a role to play despite any future revision of the domain name system. Moreover, trademark litigation is not just a U.S. phenomenon, but has counterparts in more and more jurisdictions worldwide. 43 Ideally, what should be created is a multilateral sui generis legal regime enforced by centralized legal rules, thereby avoiding the application of territorially-based trademark law. It is unlikely that this will materialize in the near future because nations will not dispense with their territorially-based systems and trademark owners will not forego the use of trademark and dilution law that have been on occasion so successful. As a result it will be necessary to look to a second-best solution—one that provides a dispute resolution mechanism to avoid as much domain name trademark litigation as possible. Unfortunately, the current system whereby the U.S. government has conferred the task of domain name registration on a quasi-governmental institution, NSI, falls far short of this goal.

IV. ACCOMMODATING THE RIGHTS OF TRADEMARK OWNERS WILL RIGHT THE NEEDS OF TECHNOLOGY

A. NSI Regulation

Plaintiffs have been relatively successful in suits challenging unauthorized use of their trademark in cyberspace, but the problem of domain name rights will continue until a better method to avoid conflicts materializes.

^{43.} See Torsten Bettinger, Trademark Law in Cyberspace—The Battle for Domain Names, 28 INT'L REV. INDUS. PROP. COPYRIGHT & INDUS. L. 508 (1997) (discussing German litigation); Tilman Mueller-Stofen, Domain Name-Related Infringement Procedures in Germany, 87 TRADEMARK REP. 590 (1997); Ian A. Buchan, Internet Issues in the United Kingdom, 87 TRADEMARK REP. 660 (1997).

Unfortunately, the current system lacks a dispute resolution mechanism. As a result, parties must resort to wasteful traditional litigation that encumbers the domain name system. Understandably, the NSI does not account for trademark litigation's confusion analysis requirement when granting registration for domain names. It simply registers a name on a first come, first serve basis, with a limit of one domain name per organization; this lack of analysis is a manifestation of NSI's desire to stay out of trademark disputes. Some would like the NSI to require that the U.S. Patent & Trademark Office resolve the issue from the outset by requiring the applicant to obtain a U.S. trademark registration. The obvious drawback is that the time its takes to obtain a trademark registration (sometimes years, involving Office Actions and *interpartes* proceedings such as Oppositions) would undermine the rapid technological growth of the Internet. This time lag would force Internet domain applicants to seek registration abroad in countries with faster procedures for obtaining trademark registrations.

B. NSI Dispute Resolution Policies

To respond to the concerns of trademark owners, in July 1995, NSI instituted a policy intended to address some of these issues. It established a procedure to follow for parties claiming rights to the same domain name. Since July 1995, NSI has issued three revisions to that policy; the most recent became effective February 25, 1998.⁴⁵ Its four most important provisions can be summarized as follows: (1) an applicant must submit a statement that to his knowledge, the domain name requested does not interfere with or infringe on the rights of third parties; (2) an applicant must have a bona fide intention to use the Internet domain name on a regular basis; (3) an applicant must not seek the domain for any unlawful purpose; (4) the owner of a U.S. federal or foreign trademark registration may challenge NSI's assignment of an identical SLD if the domain name holder began use after the challenger's trademark registration

^{44.} The policy is set forth at Network Solutions, *Network Solutions' Domain Name Dispute Policy* (last modified Feb. 25, 1998) http://rs.internic.net/domain-info/nic-rev03.html>.

^{45.} Id.

or first use date. 46 The challenger sends NSI a certified copy of its registration and a copy of its protest letter to the domain name holder. 47 Once NSI's dispute policy activates, NSI gives the domain holder thirty days to prove either that its use of the domain predates both the first use of the challenging party's registration and the effective date of that registration, or that the domain holder has its own trademark registration. 48 In the latter case, the domain holder will be able to keep the domain, subject to an obligation to indemnify NSI. 49 If, however, the domain name holder cannot demonstrate either case, then the domain holder must give up the domain with a ninety-day phase out period. 50 The disputed domain then goes into a hold status where it is not available to anyone pending the outcome of the dispute between the parties. 51 Barring a court order or a decision from an arbitration panel, placing the domain name registration on hold is the best result a challenger can expect.

As one might guess from the number of revisions, the NSI dispute resolution policy has satisfied few. Owners of famous marks ignore the policy because they can avail themselves of the antidilution statutes, and companies having no trademark registration have been left out of the NSI system. In effect, the NSI policy provides another example of how classic trademark law resolutions fail to regulate usefully the regulation of domain names. After all, one mark can have many owners, whereas the current Internet technology limits one domain name per user. For example, in New York, there are many simultaneous yet nonconfusing uses of the word "Brothers," who may be in the trucking, dry cleaning, or restaurant businesses. But there can be only one Brothers.com as a domain name. The solution to the domain name conflicts will have to come from elsewhere.

Dissatisfaction with the current domain name system has prompted a number of governmental and non-governmental organizations (NGOs) to examine the system. The International Ad Hoc Committee (IAHC) and the

^{46.} Id.

^{47.} Id.

^{48.} *Id*.

^{49.} *Id*.

^{50.} *Id*. 51. *Id*.

^{52.} Network Solutions has been sued many times, and courts have refused to impose a duty on the registrar to take any affirmative steps to safeguard the interests of trademark owners. See, e.g., Lockheed Martin Corp. v. Network Solutions, Inc., 985 F. Supp. 949 (C.D. Cal. 1997) (declining to find Network Solutions liable as a publisher of advertising lenders under Section 32(2)(b) of the Lanham Act; the court also refused to hold that Network Solutions's receipt of registration fees satisfied the commercial use requirement of the Lanham Act).

Clinton administration's Green Paper and Policy Statement conducted inquiries into the current administration and management of domain names. These are not the only studies and proposals of interest. Many other organizations have entered into the field, such as the World Intellectual Property Organization (WIPO),⁵³ the International Trademark Association (INTA),⁵⁴ the U.S. Patent and Trademark Office (PTO)⁵⁵ and the European Union (EU).⁵⁶ I will concentrate on IAHC, the Green Paper, and the Policy Statement because they raise the fundamental questions concerning the future governance of the domain name system. As we will see, both the technical configuration of the system and the trademark dilemma involve a number of critical policy choices that suggest a highly defined institutional structure.

V. PROPOSALS FOR REFORM OF THE DOMAIN NAME SYSTEM

A. The International Ad Hoc Committee

On February 4, 1997, an international group, IAHC,⁵⁷ issued a comprehensive plan for the regulation and governance of the domain name system. Its six major aspects may be summarized as follows. First, it recommends the introduction of seven new gTLDs to increase the available name space.⁵⁸ Second, to encourage competition and consumer choice, it would create an unlimited number of new domain name registries located throughout

^{53.} See World Intellectual Property Org., Internet Domain Names (visited Oct. 23, 1998) http://www.wipo.org/eng/newindex/domains/htm.

^{54.} See Int'l Trademark Ass'n, INTA "White Paper": Trademarks on the Internet (last modified Nov. 18, 1997) http://www.inta.org/wptoc.htm.

^{55.} See U.S. Patent and Trademark Office, Trademark Examination of Domain Names (last modified Jan. 16, 1998) http://www.uspto.gov/web/offices/tac/domain/tmdomain.htm>.

^{56.} The Internet Domain Name System and Trademarks: Working Paper of the Commission Services, EU-DG XV/E-3.

^{57.} The IAHC was a coalition of participants from the Internet community created to examine the global domain name system. Its members were the Internet Assigned Numbers Authority (IANA), Internet Society (ISOC), and Internet Architecture Board (IAB).

^{58.} See Int'l Ad Hoc Comm., Final Report of the International Ad Hoc Committee: Recommendations for Administration and Management of gLTDs (visited Oct. 29, 1998) http://www.gLTD-org/draft-iahc-recommend-00.html.

the world that would share a database of domain names.⁵⁹ Third, the IAHC would establish a procedure to publish all applications for domain registrations, enabling trademark owners to monitor activity on the registration front.⁶⁰ Fourth, the Report envisages an on-line alternative dispute resolution procedure administered under rules of the WIPO Arbitration and Mediation Center.⁶¹ Fifth, it would resolve the multi-jurisdictional disputes arising from domain name registrations.⁶² Sixth, it would create a governance based on global community oversight and consensus.⁶³ These principles have constituted the basic focus of most efforts to reform the domain name system, and as we will see, they form the basis for the Clinton Administration's subsequent Green Paper and Policy Statement.

The IAHC makes major steps in resolving the trademark dilemma. In recognition of the limitations of the NSI's dispute policy, the IAHC plan acknowledges the essential role of the national courts in resolving trademark disputes. Unlike the NSI registration policy, a registrant will be required to provide detailed information about what server it will use as well as complete information for further contact.⁶⁴ In addition, the applicant must submit to the jurisdiction of appropriate courts in the country where the registered domain is located and must appoint an agent for service of process.⁶⁵ This procedure ensures that the trademark owner will enjoy at least a guaranteed venue in which to pursue litigation. Moreover, SLD applications will be published on a publicly available website that will enable trademark owners to police their marks adequately.66 Another key provision of the IAHC plan relates to alternative dispute resolution mechanisms, including on-line mediation and arbitration, as well as an innovative administrative challenge approach. Under the proposed procedures, a trademark owner can directly challenge an SLD either before or after the domain name has been assigned to the applicant.⁶⁷ Once an SLD is challenged, an administrative challenge panel (ACP) composed

^{59.} Id.

^{60.} *Id*.

^{61.} *Id*.

^{62.} Id.

^{63.} Id.

^{64.} *Id*. 65. *Id*.

^{66.} *Id*.

^{67.} *Id*.

of trademark experts would determine the rights of the parties.⁶⁸ WIPO would be responsible for facilitating the ACP system.⁶⁹

In addition to its provisions on registration and dispute resolution matters, IAHC advocates seven new top-level domain names to be added to com, org, and net. The council has argued that several new domains are necessary so that organizations that did not happen to be quick enough or rich enough to register the domain identity of their choice could have more options. Housing available website will publish all applications for domain names when received by the registrar. Such publication will enable trademark owners to monitor infringing third-party use of their marks and will include pertinent information about the applicant. Under the IAHC proposal, all gTLDs will ultimately be shared among all registries. New registries will be dispersed throughout the regions of the world. In addition, the Proposal has an elaborate method of dispute resolution. In using the system, each applicant will agree to participate in on-line mediation and in expedited binding arbitration under WIPO rules.

Unfortunately, extending the number of top-level domain names involves a trade-off. On the positive side, the increased number of gTLDs will allow a greater number of registrations for the secondary domain name. For example, under the IAHC proposal, McDonalds.com and McDonalds.store can coexist without conflict in the system. To some trademark owners, however, that capacity for coexistence is hardly a blessing. The reason is clear: the more gTLDs that are added, the more difficult the policing function becomes. This additional policing burden could be offset if the on-line mediation and challenge

^{68.} Id.

^{69.} Id. As originally conceived, the ACP procedure was to be limited to internationally known marks. In a later revision, WIPO issued a draft proposal that would extend the ACP procedures to anyone who could demonstrate one valid trademark registration. The hearing would apply likelihood of confusion analysis and take into account equitable considerations.

^{70.} Id. The 7 new generic top-level domain names proposed are: firm, store, web, arts, rec, info, and nom. These new gTLDs will be added to the current list including: gov, edu, org, and various country codes.

^{71.} *Id*.

^{72.} Id.

^{73.} On February 28, 1997, a "Memorandum of Understanding on the Generic Top Level Domain Name Space of the Internet Domain Name System" (MoU) was inaugurated. With this memorandum of understanding, the signatories agreed to voluntarily establish a new system of administration and management of domain names. The MoU provides for the creation of: a Depository of the gTLD-MoU, a Policy Advisory Body, an Oversight Committee, a Council of Registrars, and an Administrative Domain Name Challenge Panels, as well as the new top-level domain names mentioned above. See Establishment of a Memorandum of Understanding on the Generic Top Level Domain Name Space of the Internet Domain Space (gTLD-MoU) (visited Oct. 29, 1998) https://www.gTLD.mou.org/gTLD-MoU.html.

mechanism works smoothly. In effect, the attempt to make a domain name system more compatible with trademark law causes certain insoluble problems. Every expansion in the number of gTLDs exacerbates these problems.

To solve the problems, one might envisage a system whereby the domain system is no longer limited by a small number of top-level domain names. Thus, rather than arbitrarily dividing top-level domain names into com, org, or edu, domains could be divided into logical categories of goods and services and personal use. Such a system could be based on the International Classification of Trademarks established by WIPO under the Nice Treaty. If adopted, each domain would bear the number corresponding to industry classification. To illustrate, McDonalds.05.com could be differentiated from McDonalds.30.com. The solution is flawed due to the nature of the international classification system. For example, international "Class 5" encompasses both pesticides and pharmaceuticals. Since products with significantly different characteristics exist within many of the classes, it is not uncommon to see identical trademarks registered in the same class. This must not occur in a domain system where there can be only one McDonalds.05.com.

A similar alternative might be based on the Standard Industrial Classification (SIC) Codes⁷⁶ to identify the specific nature of the domain name owner's products or services. SIC Codes, established by the U.S. government, consist of four-digit designations and classify businesses by their type of activity. Thus, the use of SIC Codes would allow the same domain name to be used by different companies engaged in noncompetitive activities. SIC Codes suffer from the same problems as the Nice Classification system. First, the codes were not designed to designate differing product categories for trademark purposes. Second, a code number after a domain name would mean nothing to users of the Internet—and they never would, given that there are thousands of codes. Finally, it is unreasonable to expect that other countries would accept the U.S. SIC Code system.

^{74.} For the text of the Nice Classification Treaty, see MARSHALL LEAFFER, INTERNATIONAL TREATIES ON INTELLECTUAL PROPERTY 509 (2d ed. 1997).

^{75.} For a complete listing of the classes contained in the Nice Agreement, see TRADEMARK PROTECTION AND PRACTICE: TRADEMARK MANUAL OF EXAMINING PROCEDURE (TMEP) 755-84 (Jerome Gilson & Jeffrey M. Samuels eds., 2d ed. rev. 1.1 1997).

^{76.} SIC codes, now replaced by NAICS (North American Industry Classification System) can be found at U.S. Census Bureau, 1997 NAICS and 1987 SIC Correspondence Tables (visited Oct. 15, 1998) http://www.census.gov/epcd/www/naicstab.htm, which has been devised pursuant to the North American Free Trade Agreement and is compatible with the International Standard Industrial Classification System (ISIC) devised by the United Nations.

B. The Green Paper and the Statement of Policy

Building on the work of the IAHC, the U.S. Department of Commerce released its Proposal to Improve Technical Management of Internet Domain Names and Addresses.⁷⁷ This document, known as the Green Paper, took a major step toward an overhaul in the management of the domain name system and opened a comment period to examine the general ideas it proposed. The resulting Statement of Policy⁷⁸ benefitted from the substantial comments from diverse sources, including elaborations in the Green Paper. 79 The basic thrust of the Administration's proposals is that a coordinated basis is the best way to manage the domain name system and that a stable, reliable system guaranteeing universal connectivity requires coordination of the root server system. 80 To coordinate these essential functions, the administration proposes a new U.S.based nonprofit organization to direct the expansion of the Internet domain scheme. The new organization, to be run by a representative made up of an internationally diverse group of Internet users, would also oversee the core computers that keep track of cyberspace locations.⁸¹ After a transition period of a few years, when the new corporation is operationally stable, domain name system management will transfer to the private sector.82

In addition to the new corporation, the administration proposals envisage the development of competitive registries that would encourage innovation and

^{77.} See Green Paper, supra note 5.

^{78.} See Statement of Policy, supra note 6.

^{79.} The Green Paper and Statement of Policy agree on the basic principles that should guide the system identified as: (1) stability (the current operation should not be disrupted); (2) competition (market principles should govern the system where possible to ensure innovation and consumer choice); (3) private, bottom-up coordination ("private-sector action is preferable to government control"); and (4) representation ("[t]echnical management of the Internet should reflect the diversity of its users and their needs"). See Green Paper, supra note 5, at 8827.

^{80.} See id.; see also Statement of Policy, supra note 6, at 31,744. The DNS functions to be performed on a coordinated, centralized basis for smooth functioning of the system identified by the Green Paper are:

⁽¹⁾ To set policy for and direct the allocation of IP number blocks; (2) To oversee the operation of the Internet root server system; (3) To oversee policy for determining the circumstances under which new top level domains would be added to the root system; and (4) To coordinate the development of other technical protocol parameters as needed to maintain universal connectivity on the Internet.

^{81.} See Statement of Policy, supra note 6, at 31,744-45.

^{82.} See id. at 31,744. For a discussion of the structure of the corporation, see id. at 31,744-45.

consumer choice for future domain name registrants.⁸³ A system of competitive registries would replace the current system in which one entity handles the entire registration process. Thus, the registry function would be outsourced to commercial entities, and these new registries would operate both the old and new gTLDs in a competitive environment. The new corporation would have the task of establishing and implementing the appropriate criteria for gTLD registries.⁸⁴ As for the creation of new gTLDs, the Policy Statement recommends at this time no expansion of gTLDs but instead encourages procession at a deliberate and controlled pace in which the new corporation will play the major role.⁸⁵

The trademark problem presents the greatest challenge to the regulation of domain names, and it is this aspect of the Administration's proposals that is uncomfortably vague. The Policy Statement recommends that the U.S. Government seek international support and call on WIPO to initiate a process of resolving domain name trademark disputes and to maintain a database permitting trademark owners to obtain the information necessary to protect their trademarks. 86 What form the dispute resolution mechanism will take is an open question. Ideally, an alternative dispute mechanism, whether through WIPO or the new Domain Name Management Corporation would reduce the chaos of nation-state jurisdiction. The Policy statement, however, would limit the alternative dispute resolution mechanism to the question of cybersquatting and piracy, rather than resolving conflicts between parties "having legitimate competing interests in a particular mark."87 Whatever form it takes, a properly fashioned dispute mechanism should avoid much of the current conflict and should be an integral part of the system. It will not, however, be a panacea due to the chaotic complexity of the jurisdictional problem and the inherent

^{83.} See id. at 31,745-46:

^{84.} See id. at 31,744.

^{85.} Id. at 31,746. Here, the Policy Statement differs from the Green Paper which suggested the creation of five new gTLDs immediately. Green Paper, supra note 5, at 8829.

^{86.} Statement of Policy, supra note 6, at 31,746-47.

^{87.} Id. at 31,747. The Policy Statement recommends "that domain name holders agree to submit infringing domain names to the jurisdiction of [the] court where the 'A' root server is maintained, or where the registrar is domiciled." Id. The policy maintains "that allowing trademark infringement suits to be brought wherever registrars and registries are located" will enable trademark owners to defend their rights in a convenient jurisdiction. Id.

incompatibility between trademark law and the web addresses system.88

VI. DOMAIN NAMES AND SOVEREIGNTY IN CYBERSPACE

A. Four Models of Net Governance

What is sorely needed is a system that better allocates domain name rights with clarity and certainty, harmonizes the technological needs of the Internet, and resolves the tension between an efficient domain name registration system and trademark owners' rights. How this system should materialize depends on one's notion of net governance. The various models can be characterized in four categories.⁸⁹ The first may be called the model of territorial sovereignty. in which nation-states impose a legal order within the confines of physical boundaries. The second is a centralized law administered by a supranational agency, such as WIPO, that would administer uniform rules on a global scale. I call the third approach the libertarian model, whose advocates propose that the optimal system will materialize from decentralized decisionmaking. The fourth model, and the one that I believe offers the best opportunity for domain name regulation, I call the institutional harmonization model whereby a consensus will be established by multilateral agreement to impose the necessary mix of technological standardization and territorial sovereignty necessary to construct a viable system. I will address each of these models in turn.

B. Territorial Sovereignty

The territorial sovereignty model, where each sovereign exerts jurisdiction over citizens falling within its territory, is not compatible with the needs of an effective domain name system. For the purpose of creating a usable and efficient domain name system, this jurisdictional model is obsolete and inappropriate. Indeed, indiscriminate application of State trademark and dilution law poses a current threat to the smooth workings of the system. A

^{88.} In fact, Jonathon E. Moskin has argued that the new system of registering, envisaged by the administration's proposal, will engender international litigation raising difficult questions about international jurisdiction and service of process, conflicts of law, and enforcement of foreign precedents. See Jonathon E. Moskin, Board the Moving Bus: Trademark Owners Beware of Proposals to Improve Management of Internet Names and Addresses, 88 TRADEMARK REP. 213, 225-26 (1998).

^{89.} For these competing models of Internet governance, I have drawn heavily on the typology developed in David R. Johnson & David G. Post, And How Shall the Net be Governed?: A Meditation on the Relative Virtues of Decentralized, Emergent Law (visited Oct. 15, 1998) http://www.cli.org/emdraft.html.

viable domain name system would fail under the rigid notions of territoriality and the mechanisms developed to avoid chaos in the overzealous application of territorially defined law. In short, domain names, which are cyberspace addresses, do not effectively reside in a physical location, and the efficacy of the domain system requires expansion beyond territorial boundaries and into globally integrated laws.

C. Unified Law

In stark opposition to the territorial model, one might envision a domain system regulated by centralized authority under a unified legal regime. For example, WIPO, or some such international organization, could, by multilateral agreement, regulate domain names. The advantages derived from uniformity are obvious, given that domain names must be part of a system that is global in scope. Nevertheless, such a model of domain name governance is inappropriate for the pressing task of devising an integrated and globally relevant system because it would take too long to negotiate. As I have mentioned above, an effective domain system involves a technological component that includes standard setting and a registration system that allocates the right to a domain name. It will also involve a resolution of the trademark problem, an issue infused with traditional and cultural notions of territoriality and sovereignty. Though the international community might agree on technological standards quite quickly, the arduous and extended process of negotiating international trademark agreements would take much too long.

D. Net Libertarianism

Individual nation-states applying a territorially-based system as the primary lawmaking authority have not always had, to say the least, an impeccable track record. Likewise, a system of unified law will never come to fruition in any reasonable time frame. But what is the alternative? In sharp contrast to both nation-state territoriality or a unified legal system, Internet libertarians proffer a third model for effective net governance. They argue for a radical decentralization of lawmaking—that is, development of processes that do not

impose order on the electronic world but through which order can emerge. This model of decentralized emergent decisionmaking, a modern Jeffersonian vision of net governance, is based on the sovereignty of the individual. In this vision, individual decisionmakers exercising individual choices will build political order. Here, "independent . . . access providers, rather than territorially-based states, become the essential units of governance..." The 'law of the Internet' thus emerges, not from the decision of some higher authority, but [from] the aggregate . . . choices made by individual system operators about what rules to impose . . . and about which online communities to join."

According to libertarian theory, this benign chaos will produce a viable and efficient market for law which, like all such markets, will be a "powerful information-processing device." This decentralized market-driven environment will generate "remarkable degrees of coordination," much like biological systems, "which evolve without any centralized decisionmaking at all." Consider the Internet itself. No sovereign authority or treaty decreed that a specific set of such standards must be used in order to link each of the diverse individual networks together into a single global web. Cyberlibertarians believe that fatal conflicts between inconsistent domain registration systems can be avoided without top-down controls or the coercive power of the State. When incompatible systems arise, only one ultimately will remain because the network externalities will be too great. Thus, in the long-run, incompatible systems would be unlikely to coexist because network economies will lead to the efficient solution.

The libertarian vision of decentralized net governance has a certain appeal. It is true that traditional legal institutions are not situated to regulate the kind of disputes that arise between trademark owners and domain name owners. I believe, however, that the libertarian model emerged from a flawed concept of the Internet. When applied to domain name regulation, the libertarian model is not rooted in practical reality, either from a technical or a political standpoint. First, cyberliberatrians seem to assume that cyberspace is itself a sovereign country—a utopian anarchy that will lead to a single, stable system for domain

^{90.} Id

^{91.} David G. Post, Governing Cyberspace, 43 WAYNE L. REV. 155, 166-67 (1996). One might call it "a Hayekian utopia." See F.A. Hayek, The Use of Knowledge in Society, XXXV AM. ECON. REV. 519 (1945).

^{92.} Id. at 167.

^{93.} Id. at 169.

^{94.} Id. at 170.

names. I suspect, however, that it would take a long and chaotic period of time before network economics settle on one system. Second, other legal hurdles will likely arise along the way, such as antitrust issues that would inevitably arise when participants in the system agree on standards. Finally, the libertarian model under plays the trademark problem. In particular, it is difficult to see how a decentralized system would resolve the problem of cybersquatters and others who would exploit the system in bad faith. These trademark issues are too infused with the cultural norms embodied in the trademark laws of a multiplicity of nations. In sum, I do not think that decisionmakers would tolerate the risks and uncertainty that complete governmental withdrawal from the system would likely cause. In addition, neither nation-states nor trademark owners will abandon their territorially separate laws.

I reject the force of the libertarian position because I do not view cyberspace as a sovereign place with its own jurisdiction, rules, governance, and adjudicatory mechanisms. ⁹⁵ It is not a sovereign place mainly because governments do not view it as such and have already imposed regulatory authority over it. The reality is that government already regulates cyberspace, and any remaining pockets of decentralized autonomy that still exist survive solely by leave of governments. From a standpoint of expediency, I do not think a deregulated market without governmental intervention is possible. Nation-states already regulate the technical aspects of the domain name system, and national versions of trademark law have been superimposed on the system.

In other words, however much cyberlibertarians rail against centralized governmental authority on the Internet, the government retains nominal control over the machine known as root server that distributes new address information to the other root servers worldwide. The root server is the linchpin in the system that allows web users to view, for instance, the White House home page no matter where they are. However much the cyberlibertarians would like to will away nationally defined trademark law, the multiplicity of territorially defined State trademark law will continue to apply for some time to come. The regime that will best serve the global community of domain users must take into account the realities of national sovereignty and at the same time develop institutions that will permit technological efficiency and reduce trademark law

^{95.} For an elaboration on the cyberspace as a sovereign place, see Lawrence Lessig, *The Zones of Cyberspace*, 48 STAN. L. REV. 1403 (1996); David R. Johnson & David Post, *Law and Borders—The Rise of Law in Cyberspace*, 48 STAN. L. REV. 1367 (1996); Henry H. Perritt, Jr., *Cyberspace Self-Government: Town Hall Democracy or Rediscovered Royalism?* 12 BERKELEY TECH. L.J. 413, 417-19 (1997); 1. Trotter Hardy, *The Proper Legal Regime for "Cyberspace"*, 55 U. PITT. L. REV. 993, 1053 (1994).

disputes. This solution will reside in multilateral agreements on the technological front, in the eventual competitive market for domain registries, and in a viable dispute resolution mechanism.

VII. TOWARD A COORDINATED MULTILATERAL SOLUTION BASED ON RATIONAL SELF-INTEREST

The three models of Internet governance embody certain truths about this exploding medium, yet all manifest shortcomings as a viable model in the real world. I agree with the territorial sovereignty model to the extent that I believe that there will always be pockets of territorial sovereignty imposed on aspects of the Internet. Under the unified law model, a viable and smoothly working Internet must develop institutions that are internationally diverse. Like the cyberlibertarians, I believe that the market forces, and minimal governmental interference will lead to a flourishing, more efficient system that will meet consumer demands. Nonetheless, these three models are incomplete in their approach.

My thesis is that the domain name issue lends itself to a coordinated multilateral solution based on national interest. Here, individual nations acting in their rational self-interest should be able to fashion a comprehensive and global system for domain name regulation. In the tissue of relationships that constitute cyberspace, some questions lend themselves more easily to a topdown multilateral cooperative solution among nation-states than others. The management of the domain name system is one such Internet issue whereby an institutional structure can be developed among nations. I do not mean to imply that all Internet issues conveniently lend themselves to a coordinated, centralized form of regulation. For example, cultural issues such as content on the Internet (e.g., pornography) do not lend themselves well to such regulation. By contrast, multilateral cooperation concerning the system of domain names is a plausible solution. Though international cooperation and the erection of an institutional structure for the regulation of domain names will be difficult, particularly for the trademark infringement problem, the establishment of technical standards such as Internet protocols is much more amenable to a top-down application based on a multilateral agreement.

In this context, the general thrust of the Green Paper and the Policy Statement is fundamentally sound, even though somewhat vague in important details. The technological management of the domain system involves several important tasks in its operation. 6 The delicate nature of these tasks necessitates that they be performed on a coordinated, centralized basis to ensure a smoothly running Internet. At the same time, the Administration's proposals are sensible in recommending that government be progressively phased out of the system. The government will gradually withdraw to be replaced by a nonprofit corporation. If properly structured, this will foster a stable, reliable, and efficient environment for the operation of the Internet and encourage effective competition in the registration and maintenance of domain names. Moreover, because the Internet is a global medium, the proposals recognize that the board membership should be internationally diverse. Although the new corporation will ultimately administer the system, governmental authority will continue during the period of transition. Though the new private corporation will determine important matters, such as the number of gTLDs and the nature of the dispute resolution mechanism, governmental authority will determine the institutional structure of the new corporation and the scope of its decisionmaking ability. Ideally, the new corporation will have significant autonomy. However, it will never exist independent from governmental authority. Thus, the Green Paper and the Policy Statement have taken what I have termed the realist-institutionalist approach to domain name regulation, an approach that provides a plausible and pragmatic solution to a pressing concern in the future of the Internet.