Trademarks Along the Infobahn: A First Look at the Emerging Law of Cybermarks

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by Dan L. Burk

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Introduction

{1} Use of the global Internet computer network is rising exponentially.[1] As Internet subscription increases disagreements between users are expected to arise, just as where any sizeable number of human beings interact, disagreements may be expected to arise. To date, on-line disputes have been primarily dealt with via informal solutions, such as the polite conventions of "netiquette" shared by Internet users.[2] However, as the community of Internet users grows increasingly diverse, formal dispute resolution mechanisms, embodied as law and legal institutions, may be called upon by the parties to resolve disagreements. For example, several acrimonious disputes have already arisen over the use of particular "domain names" on the Internet. This paper discusses how established principles of trademark law may be applied to resolve such controversies. Such a discussion properly begins with a review of the nature and function of the global Internet.

The Internet Experience

{2} The Internet has been called a network of networks -- local computer systems hooked to regional systems hooked to national or international high-capacity "backbone" systems.[3] Each link or node in this web is a computer or computer site connected together by a variety of connections: fiber optic cable, twisted-pair copper wire, microwave transmission, or other Comm. media. Each computer in the network communicates with the others by employing machine-language conventions known as Internet Protocols ("IP").[4] Indeed,
these protocols define the network; the Internet is the linked mass of machines which use IP to communicate.

3. **Smart Comm.** Unlike other Comm. media that tie up the entire channel during transmission, the Internet breaks information into discrete packets that can be transmitted as capacity allows. The packets follow any of a number of different routes from computer to computer until they reach their destination, where they are reassembled by the recipient machine. Each computer in the network assesses whether to temporarily hold packets or send them on, so that maximum use is made of the available carrying capacity at any given time.[5]

4. **Decentralization**: There is no centralized control of the Internet. From a technical standpoint, each computer acts autonomously, coordinating traffic with its nearest connected neighbors, and guided only by the "invisible hand" that arises from the sum of millions of such independent actions.[6] From a management standpoint, each node is similarly autonomous, answering only to its own systems administrator. This means that there is no central authority to govern Internet usage, no one to ask for permission to join the network, and no one to complain to when things go wrong.

5. **Telepresence**: The Internet protocol provides geographically extended sharing of scattered resources. An Internet user may employ her Internet link to access computers, retrieve information, or control various types of apparatus from around the world. These electronic connections are entirely transparent to the user; the "virtual machine" created by the connection appears to be the one at the user's fingertips. Indeed, the user may be completely unaware of the geographic location of the resource being accessed.

6. These features make available a vast array of interconnected information, including digitized text, graphics, and sound. The totality of this international information structure is commonly referred to as "cyberspace," a cognitive realm that is conceptually separate from the real space that we physically inhabit. "Cybernauts" who traverse this digital landscape find that virtual relationships with other electronic pilgrims blossom into collaboration, friendship, and even romance. Virtual communities coalesce from all corners of the globe to exchange information and reinforce shared values. And, increasingly, the universal human proclivity toward arbitrage and commerce is becoming an important component of on-line interaction.

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**Virtual Commerce**

7. The Internet began as a product of Cold War military technology, linking together researchers involved in a research program sponsored by the U.S. Department of Defense.[7] This system for communicating and sharing computer resources became increasingly important to the scientific community; much of the funding, as well as management of the net's high speed backbone connection became the responsibility of the National Science Foundation ("NSF").[8] There was little opportunity for commercial Internet traffic in the days of government sponsored research usage. Indeed, the NSF promulgated an acceptable use policy ("AUP"), forbidding such use of the publicly-funded Internet backbone connections.[9]

8. As the benefits of Internet access became better known, the usefulness of computer networking was not lost on business, or for that matter, on consumers. A crop of private Internet access providers developed, offering network access and facilities for customers outside the research community.[10] In order to route traffic around facilities restricted by the NSF's AUP, these providers formed the Commercial Internet Exchange ("CIX"), which sponsored high-speed links for commercial traffic.[11] In the meantime, NSF slowly began to edge its way out of the Internet management business: first, by funding regional networks; then by contracting oversight duties out to private firms; and finally by encouraging the regional networks to find paying customers.[12] By early 1995, NSF's sole duty will be to fund a few Network Access Points, or NAPs, to act as data traffic exchanges.[13]
Consequently, although the academic and scientific research communities remain an important part of the Internet community as a whole, private and commercial traffic is becoming a dominant force in the development and growth of the "electronic frontier." Businesses of all types routinely use the Internet for a variety of commercial transactions, and consumer services have begun to appear. It is presently possible to access a variety of mail-order catalogs on-line, and arrange for the purchase of music, books, fast food delivery, and even flowers. The variety and availability of similar consumer services is likely to grow. But in order for customers to order commodities, they must first be able to locate and recognize the commodities among the sprawling data connections of cyberspace.

Internet Locators

In order for the Internet to function, there must be some manner of distinguishing and locating all the various computers, users, files, and other resources attached to the net. Host machines must know which information packets are intended for a particular machine, which packets must be passed on, and the ultimate destination of packets that are passed to the next machine. Machines must also be able to differentiate themselves from other machines. This is accomplished via Internetworking Protocol Addresses ("IP addresses"). Assignment of IP addresses to users is the responsibility of the Internet Assigned Numbers Authority ("IANA"), a private entity with ties to international standard-setting bodies such as ANSI. IANA delegates the administration of IP address applications and registrations via InterNIC Registration Service, operated by a private firm called Network Solutions.

At the time of this writing, IP addresses are divided into classes A, B, and C; this system may change somewhat with the introduction of the next anticipated version of the Internetworking Protocols. Classes A and B are, much like certain frequencies of the electromagnetic spectrum, reserved for special uses. Class C addresses are assigned to network access providers in blocks of numbers; these blocks may then be divided and subdivided among that provider's users. Each address within a block is potentially a unique designator for some entity on the network.

IP addresses are represented as strings of digits divided into parts, or fields. By convention, the fields in the IP address are separated by periods. For example:

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124.33.45.112
```

might be a typical Internet address. Each address contains a network portion, the IP network address, and a local portion, called the local address. The network portion begins on the left, the local portion ends on the right; the exact division between these portions is determined by the class of the address. The combination of these local and network portions uniquely identifies and specifies the location of some interface on the Internet. Unfortunately, using these numerical strings is somewhat inconvenient and cumbersome; Internet users may find it difficult to routinely remember and use such addresses. Consequently, the IP Address system has been overlaid with a more "user-friendly" system of domain names. This overlay allows Internet resources to be assigned a mnemonic designation that is more easily remembered. Internet applications have been designed to automatically look up the IP Address corresponding to mnemonic designations; this is done through a facility called the Domain Name Service ("DNS") which operates invisibly to the Internet user.

Like IP addresses, domain names are divided into fields separated by periods. An example would be:
Read from right to left, fields designate the computer, subdomains, and domains of the address in proximity to the user. The rightmost field is the top-level domain, a standardized designation showing the type of organization or the country to which the address belongs.[19] There are a variety of such top-level designators. For example, the designation " .com " indicates a commercial organization, " .gov " indicates a governmental organization; " .net " indicates an organization running a computer site or network; and " .org " is a classifier for miscellaneous organizations. Country designators include " .uk " for the United Kingdom, " .nl " for the Netherlands, and " .ca " for Canada.[20]

{14} As with IP addresses, IANA is responsible for assigning domain names, and has delegated the operation of a name registry to the InterNIC.[21] InterNIC acts merely as a recorder; domain names may be requested by electronic mail and are assigned on a first-come, first-served basis.[22] Once an organization or a person has registered a domain name, it may do as it wishes with that name: they can use it, reassign it, or simply hold it unused. Because domain names are simply mnemonics, and because there is no logical connection between them and the IP address that in fact locates an Internet resource, domain names are fully portable, and can be transferred to a new machine or site if the name holder moves.

{15} Given that domain names were instituted as mnemonics to aid recollection of Internet resource locations, one might expect that the use of such names will become critical where remembering a resource is critical -- as for example, where money is at stake in Internet commerce. The importance of such names for commerce on the Internet has been demonstrated most recently by a series of legal and quasi-legal disputes over possession and use of certain domain designations. For example, in one early scuffle, http://www.hotwired.com Wired magazine, which maintains the Internet site "wired.com," objected to the use of the domain name "wire.net" by an organization called "Women's Wire." That dispute was quickly settled when Women's Wire changed its domain name to "wwire.net" in order to avoid a legal confrontation.[23] However, subsequent disputes such as those discussed below have been more protracted.

MTV v. Curry

{16} Perhaps the most notorious Internet trademark dispute to date is that involving Adam Curry and the MTV cable television channel.[24] Curry was formerly employed as a video jockey, or "VJ" host on MTV. Curry organized an Internet site registered as "mtv.com" during his employment period, apparently with the knowledge and approval of MTV. The site was devoted to discussion of topics related to Curry's vocation, including popular culture, entertainment, and celebrities.[25] He also established a considerable net presence by writing and circulating the "Cybersleaze Report," an electronic newsletter devoted to celebrity gossip.[26] Curry's fame both on and off the Internet generated a high volume of traffic at the mtv.com site.[27]

{17} In 1993, Curry and MTV parted ways, apparently with some rancor. Among other items of dispute, MTV demanded that Curry surrender or disable the mtv.com site because it carried the designation "mtv."[28] Curry, who had registered the site's domain name under his own name, refused to do so. The parties moved their dispute to court. Pending trial, Curry suspended his operations at mtv.com and moved to a new and equally chic site registered as "metaverse.com."[29] The parties quietly settled the dispute on March 24, 1995.[30] and it appears that MTV is now in control of the mtv.com domain.
Kaplan v. Princeton Review

Another Internet trademark dispute involved the Princeton Review, a purveyor of courses and materials to prepare students for standardized aptitude tests such as the SAT, LSAT, and GRE. In 1994, Princeton Review determined that its business could benefit from establishing Internet services where students could discuss test-taking strategies, acquire information and materials concerning aptitude tests, and most importantly, obtain promotional literature about Princeton Review's services. The company subsequently established such an Internet site, and registered several domain names with the InterNIC, including "princeton.com" and "review.com."

Princeton Review also registered the domain name "kaplan.com," and established an Internet site under that name. Not surprisingly, the "Stanley Kaplan Review" is Princeton Review's chief competitor in the market for standardized test preparatory courses. The chief executive of the Princeton Review cheerfully admitted that his company registered its chief rival's name in order to mock and annoy the other company. Additionally, Princeton Review hoped that cybernauts hoping to contact the Kaplan Review company would sign on to the kaplan.com site. Individuals who mistakenly did so were offered electronic materials disparaging the quality of Kaplan Review's services and extolling the comparative advantages of the Princeton Review courses.

The Kaplan Review had no on-line presence but became aware of the rogue Internet site in relatively short order. Kaplan Review demanded that Princeton Review cease using the Kaplan name in conjunction with the site. Princeton Review offered to surrender the domain name in exchange for a case of beer -- either domestic or imported. Kaplan Review declined the settlement, opting instead to pursue a legal remedy. The President of Princeton Review quipped in response that his rivals had "no sense of humor, no vision, and no beer." A lawsuit was initially filed but the dispute was subsequently removed to binding arbitration. The arbitrators determined that Princeton Review should surrender the site to Kaplan Review. Princeton Review did so, but vowed to register instead the domain name "kraplan.com," which, like the kaplan.com during Princeton Review's control, would be devoted to comparative advertising disparaging Princeton's competitor.

McDonald's v. Quittner

The most recent Internet trademark dispute was created by a magazine writer attempting to generate material for his column on the Internet. In the course of writing about businesses that fail to register their names as Internet domains, writer Joshua Quittner reviewed the list of registered domain names and noted that no one had registered the name of "McDonald's," the renowned fast food chain. Quittner then contacted McDonald's Corporation to get a statement regarding their failure to protect their famous name. No statement appeared forthcoming, so Quittner generated the story by registering "McDonalds.com" himself, activating the site, and circulating his new e-mail address as "ronald@mcdonalds.com." Some messages urged him to use the site to promote vegetarianism, other messages urged him to offer the domain name back to McDonald's in return for an exorbitant price.

Quittner did indeed offer the name back to McDonald's in one of his magazine columns, but not in exchange for money. In a manner reminiscent of the Princeton Review, he instead offered to surrender the domain name if McDonald's corporation would underwrite some Internet equipment for a grade school. This and other provoking articles caught the corporation's attention; they responded not by funding grade school computer access, but by pressuring the InterNIC to revoke Quittner's registration of the name. Although the registry had stayed out of previous disputes such as the Adam Curry litigation, sticking
InterNIC tenaciously to its "first-come, first-served" policy, it wavered before this new corporate threat. InterNIC first resisted McDonalds' demands, then eventually agreed to revoke the registration, then changed its mind again, leaving the registration with Quittner.[40] McDonald's ultimately agreed to donate $3,500 to purchase the equipment.[41]

Trademark Law

{23} The disputes described above all involve some disagreement over the use of a distinguishing business name. This type of disagreement is by no means limited to the Internet, and in real space has generated a substantial body of law regarding the use, ownership, and infringement of trademarks. Trademarks comprise a type of intellectual property used to identify the source of goods or services.[42] Technically, marks used to identify goods are referred to as "trademarks," and marks used to identify services are referred to as "servicemarks." Generally, however, trademarks and servicemarks are treated as equivalent under federal trademark law.[43] Such rights serve both to protect the public by preventing fraud and confusion regarding the origin of goods, and also to protect the goodwill and name recognition of businesses that have invested in improving and distinguishing their products.[44]

{24} Trademark rights exist at common law, and most states recognize and enforce such rights. The United States Congress has also recognized and extended these rights via federal statute, and this source of trademark rights has become paramount in the United States.[45] The federal trademark statute, or Lanham Act, provides a national registry for trademarks, generating nationwide protection for registered marks. The statute also provides for enforcement of either registered or unregistered marks.[46] Trademark owners who wish to sue for trademark infringement under the statute must first show that they have a protectable mark. Protectability is largely a function of the strength of the mark; some marks are highly distinctive, or "strong" marks, others are less distinctive or "weak." Some marks may be accorded no protection at all.

{25} Trademark strength is usually assessed by reference to five categories: arbitrary, fanciful, suggestive, descriptive, and generic. As listed here, they range in descending order of strength, with arbitrary or fanciful marks receiving the greatest protection. Arbitrary marks are well-known words that are used to identify goods or services to which they have no relation -- "Apple" computers, for example.[47] Fanciful marks are invented words, such as "Exxon," applied to goods or services.[48] Each of these types of marks is considered inherently distinctive because their only association with the marked goods or services is the association gained in the marketplace.

{26} Suggestive marks are also inherently distinctive, but are weaker than an arbitrary or fanciful mark because a consumer with some thought or imagination could discern the nature of the goods from the suggestive mark.[49] Descriptive marks require little imagination to discern the nature of their associated goods, and are not considered inherently distinctive.[50] As such, descriptive marks are not protectable unless the holder can show "secondary meaning," that is, an association in the minds of consumers between the mark and that particular source of the product or service. Where secondary meaning can be shown, the law declines to allow competitors to "free ride" off of a business' goodwill and recognition by using an otherwise descriptive mark.[51]

{27} Generic terms are terms commonly descriptive of a class of goods or services, and are unprotectable. [52] They simply name the good or product. Generic terms are not recognized as protectable marks because they are terms that all competitors in that market require in order to describe their products. Allowing one business to monopolize the term would hamstring the competitive efforts of all other such businesses.[53] Some terms, such as "toothpaste" are born generic; others such as "escalator," have genericness thrust upon them by becoming a common descriptive name in the mind of the public.
If the plaintiff in a trademark suit can show that she has a protectable mark, she must then demonstrate that the use of an infringing mark is likely to result in consumer confusion as to the source of the marked goods. Courts evaluating the likelihood of confusion may review a variety of factors, none of which are dispositive. Factors that a court may review include the similarity between the marks, the strength of the plaintiff's mark, the defendant's intent or bad faith in adopting a similar mark, the "proximity" of the goods in advertisement, marketing and distribution, instances of actual confusion, and the sophistication of consumers of the goods.[54] Remedies that may be awarded to a plaintiff who successfully demonstrates trademark infringement include injunctive relief, recovery of unjust profits, damages and costs.[55]

Names and Addresses

The fit between trademark law as developed in real space and domain names used in cyberspace may to some extent depend on the ability to classify domain names as either names or addresses. In general, names are thought of as discrete emblems used to establish or designate identity; addresses are thought of as emblems designating location. Trademarks and servicemarks are clearly names; they designate or identify goods and services. They are not used to locate a good or service, or even to indicate the producer's place of origin -- they indicate the source or affiliation of the item. Trademarks also have the portability associated with an individual designator or name -- when a business moves, the trademark goes with it; the mark is not tied to the particular location.[56]

Domain names might seem to be unusual because they appear to be both names and addresses; they both locate and identify Internet resources.[57] Yet even in real space, this division is not pristine. People's personal names, for example, establish identity, and such identifiers travel with the individual rather than changing when the person changes location. Street addresses or geographic names, by contrast, are more static in order to establish location. Yet such addresses and geographic names also serve to identify the physical place, differentiating it from other places.

Geographic names and street addresses also change; indeed, there is no particular reason why a person who moves from one house to another could not take his street address with him -- this might be undesirable in cities, where the address scheme frequently follows some order. But in rural settings, where the address may simply be "Chatham Farm," the name/address could certainly move with its user. Geographic names of all kinds -- street addresses, zip codes, counties -- are in fact overlays on an unchanging numerical system of longitude and latitude, which is a universally recognized designator and locator for a particular place on the earth's surface. In this sense, geographic names are much like Internet domain names, which are an overlay on the "real" IP number designations.

Telephone numbers share the same dual nature. At one time, telephone numbers were "hard-wired" and a particular number was associated solely with a particular telephone line. However, as switching technology advanced, numbers became more portable. Telephone numbers are no longer necessarily tied to one place -- it is common for a person or business to take their telephone number with them when they move, especially within the same area code. In this respect, the number seems more like a name. Yet, a telephone set, fax machine or modem that is plugged into a new telephone line changes its "address," that is, a different number must be dialed to establish a connection to the instrument. Thus the number establishes the location of a particular endpoint on the telephone network.

If trademark law contemplates only the use of a designator as a name, then application of trademark law to domain names, with their dual nature, might be problematic. However, it appears that a fair number of designators in "real space" share this dual nature of acting as both a name and an address. Domain names may be analogous to real space designators such as geographic names or telephone numbers. To the extent
that trademark law recognizes such real space designators as trademarks, it may be readily applicable to domain names as well.

Geographic Names

{34} One real space analogy to domain names might be geographic place name; trademark law relating to names such as street addresses might be instructive in determining the proper legal treatment for domain names. As the discussion above suggests, domain names and geographic names share an amenability to be used as either names or addresses. However, trademark law generally seems to assume that geographic names are in fact addresses, and so, like generic terms, are unprotectable because everyone needs them to locate the place in question.[58] Geographic names may be entitled to legal protection if they attain secondary meaning as to the source of goods, but not if they are merely descriptive of the goods' place of origin.[59] As a consequence, under the Lanham Act, geographic place names as such cannot be registered as trademarks, and this has led some experts to opine that street addresses could not be registered as trademarks.[60]

{35} However, this rule assumes that the good or service takes its name from the place or address. This is not the case in the Internet trademark disputes encountered so far. To the contrary, the cyberspace "address," the Internet domain, has been named after goods or services that are well-known in real space. This phenomenon of using an established trademark to name a location is not entirely unknown off-line. Consider the following addresses taken from Standard & Poor's Registry:

McDonald's Corp.
One McDonald Plaza
Oak Brook, IL 60521-1900

Coca-Cola Corp.
One Coca-Cola Plaza
Atlanta, GA 30313

Mohawk Tools Co.
One Precision Plaza
Crystal Lake, IL 60014-8263

Wolfermann's
One Muffin Lane
P.O. Box 15913
Shawnee Mission, KS 66285

{36} In each of these examples, the geographic address of the business has incorporated some distinctive name or mark associated with the business located at that address. Thus, the mark appears to have preceded the address. This is quite the inverse of the law cited above -- far from the mark containing a geographic name indicating the source of the goods or services, the geographic name instead contains an indicator of goods or services located there! This seems closely analogous to naming an Internet domain after the business that locates itself at that site.

{37} The marks in the addresses above run the gamut from arbitrary or fanciful to generic. The name "McDonald's" in no way suggests or describes food services, except that it has gained that association in commerce. In the case of Mohawk Tools, the address name is significant only if one knows the firm's motto, "A Precision Twist Drill Company," in which case the term "precision," found in the address, appears to be
descriptive and protectable if it has secondary meaning with regard to Mohawk Tools. Finally, the address for Wolfermann, a purveyor of baked goods well known for its English Muffins, carries the term "muffin," which would probably be considered generic. Interestingly enough, this address appears to be a pure mnemonic for Wolfermann's mail order catalogs, and the P.O. Box is the true postal address.

The protectability of such addresses will likely be dependent on the strength of the mark given being employed as a postal or physical locator. But it is not hard to envision situations in which adoption of a similar address would constitute unfair competition. For example, if Pepsi-Cola were to set up an office in the same zip code as the Coca-Cola headquarters, and designate the address as "10 Coca-Cola Plaza," Coca-Cola might well have cause for complaint. This would especially be true if, much like Princeton Review on the Internet, Pepsi-Cola did so in the hopes of intercepting misrouted mail intended for Coca-Cola's headquarters, or perhaps even intercepting confused Coca-Cola clients or customers who had intended to visit "1 Coca-Cola Plaza."

In such an instance, the factors indicating the likelihood of confusion would seem to translate well into an analysis indicating infringement by Pepsi: the name adopted as a postal address is a strong mark associated with a competitor's product, and the addresses differ by only a zero. The locations are in close physical proximity, and more importantly, in close logical proximity. Pepsi's motivation for adopting the address, to capture its rival's mail or clients, seems to be in bad faith, and any misrouted mail or mistaken individuals would supply evidence of actual confusion. This analysis seems equally applicable to confusingly similar designators in cyberspace, particularly where the designation appears to have been adopted to specifically capitalize on anticipated confusion.

Broadcast Designators

Trademark parallels to Internet designators are also found in the identifying names or addresses for broadcast services, albeit subject to the peculiarities of the broadcast medium. Two broad classes of disputes emerge in the area of broadcast identification marks: those involving call letters, and those involving frequency designations. Each broadcaster carries a designator, similar to the IP addresses and domain names of the Internet. An additional similarity is that domain names and IP addresses are assigned by a central authority, the InterNIC, much like the way the Federal Comm. Commission ("FCC") assigns call letters and frequencies to broadcasters. However, unlike the designators on the Internet, the two types of broadcast designators are somewhat uncoupled: there is no equivalent to the Domain Name Service utility for radio or television. If there were, listeners or viewers could enter a station's call letters and have the receiver automatically tune to that station's frequency.

As a consequence of this separation, the naming and locating functions of broadcast designators have become somewhat discrete, unlike Internet domain name functions. Call letters in broadcast tend to function as names rather than as addresses. Radio and television station call letters are assigned by the FCC, with each station receiving a distinctive set of letters.[61] However, broadcasters are able to request particular call letters, subject to the constraint that call letters of stations east of the Mississippi must begin with a "W" and call letters of stations west of the Mississippi must begin with a "K."[62] Much like the assignment of domain names by the InterNIC, call letters are assigned by the FCC on a "first-come-first-served" basis.[63] Stations frequently employ homonyms to identify their call letters, such as "Kiss" for a soft-music station bearing the letters WKSS,[64] or "Warm" for a soft-music station bearing the letters WRMM.[65] Acronyms such as WBCS for "We're Boston's Country Station"[66] are also sought. This is somewhat similar to the way Internet domain names may indicate the domain site operator, but lacks a similar locating function.

Call letters have been treated for the most part as arbitrary marks. The letters chosen tend not to
describe or even suggest the nature of the service designated. Instead, they indicate only broadcast music of one sort or another. This tends to put the junior user of a similar call letter set at a severe disadvantage when a court assesses the likelihood of confusion. For example, where a new radio station adopts the letters "WMEE" and an existing station already uses "WMCZ,"[67] or where an established television station uses the letters "WBOC" and a new station attempts to use "WBOT,"[68] the factor of trademark strength has tended to favor the prior user.[69]

{43} However, this factor is not necessarily determinative. In addition to the strength of the mark, courts deciding these cases apply the other likelihood of confusion factors. Depending on the particular facts, these factors may either aid or hinder the junior user.

{44} **Similarity of marks**: Opinions analyzing the likelihood of confusion between call letters have devoted considerable space to evidence on the phonetic and visual similarity of letter combinations. Much of this evidence comes from a particular expert witness who appears to specialize in testifying for plaintiffs in such trials.[70] Some courts find an analysis of call letter similarity persuasive, while others discount it entirely. [71] Courts discounting similarity studies rely on the fact that call letters are frequently used in the context of slogans, phrases, or logos that would distinguish them, and because stations in a given region frequently share two or more of their call letters, listeners are accustomed to distinguishing stations with such overlapping letters.[72]

{45} **Similarity of product**: In call letter cases, courts have also looked to the similarity of broadcast format when assessing the likelihood of confusion in call letter cases. Stations with similar formats are more likely to be confused with one another, such as the case of two radio stations that each broadcast a "top-forty" music format.[73] Where one station broadcasts a family-oriented country-western music format, and another broadcasts a "bad-boy, iconoclastic" rock 'n' roll format, listeners are unlikely to confuse the two.[74] Certainly a listener who mistakenly tuned to one of the stations would soon realize her mistake.[75] Medium, too, tends to prevent listeners from confusing stations: one court has held that a television and radio station with almost identical call letters are unlikely to be confused in part because of the clear differences between radio and television.[76]

{46} **Area of use**: Generally, conflicts between stations with similar call letters only occur when the territories reached by their broadcast signals overlap.[77] However, there seems to be no reason that stations with similar call letters but separate geographic territories might come into conflict. Such a case would present great difficulties for a plaintiff attempting to show a likelihood of confusion: the plaintiff would presumably need to show consumer recognition of his call letters outside his broadcast area.

{47} **Sophistication of consumers**: The nature of Broad. has produced an odd twist in analyzing the factor of consumer sophistication: courts have recognized advertisers, rather than listeners, to be the true consumers of broadcast services.[78] Indeed, it has been suggested that consumers are in some sense the "product" of broadcast, by which the courts appear to mean that delivery of messages to a certain audience is the product. [79] Radio broadcasters in fact target their programming to appeal to particular niche populations.[80] The cases discussing call letter disputes suggest that advertisers are very sophisticated in selecting broadcast services that are oriented toward the particular demographic market that the advertiser wishes to reach.[81] Consequently, this factor tends to favor defendants, since it seems unlikely that advertisers will mistakenly recruit the wrong station to deliver their messages, even if one station's call letters closely resemble those of another station.

{48} **Degree of Care**: Given the analysis of consumer sophistication above, it stands to reason that the degree of care exercised by advertisers, the true consumers of broadcast services, is very high. However, in contrast to the "sophistication of consumers" factor, courts assessing the "degree of care" factor tend to apply it to the audience rather than to the advertisers.[82] In general, the courts have postulated that the degree of
discrimination between radio stations with similar broadcast formats is not high because, first, the consumer has no direct financial stake in the choice of stations, and second, listeners often play the radio as "background" while engaged in other activities. One court has extended this analysis from the "purely aural" medium of radio to the audiovisual medium of television. This extension is somewhat questionable. Even though television consumers also have no real financial stake in tuning to a particular channel, television clearly requires a greater investment of attention than does radio.

{49} **Intent in adopting mark:** The existence of "bad faith" or an intent by the junior user to "free ride" off of mistaken association with the prior user's mark is not ostensibly determinative of the outcome of a trademark infringement suit, but courts seem to weigh the question of scienter heavily. Infringers are usually not foolish enough to admit or leave evidence of an intent to appropriate a prior user's reputation, but in instances where the junior user knew of the prior user and showed an awareness of the possibility of confusion, the court was willing to infer an intent to trade on the prior user's goodwill.

**Frequency Identifiers**

{50} A second type of dispute over broadcast identifiers involves frequency designations, which carry the location function for broadcast services. It may seem surprising that the latter disputes could arise: each broadcaster is assigned a particular frequency within a geographic area by the Federal Comm. Commission; otherwise, stations would interfere with one another by Broad. over each other's signals. However, because FM tuners were analog until recently, radio stations developed the habit of rounding their designators to the nearest whole number on the FM dial in advertisements or for identification purposes. FM frequency assignments lie between 88.1 and 107.9 Megahertz; the FCC has divided this portion of the spectrum into 100 channels 0.2 Megahertz apart -- since the channels begin at 88.1, no station could be assigned to a whole number frequency. Given that only 21 whole numbers are available on the FM spectrum, and since stations can elect to round up or down, several conflicts developed between stations that rounded to the same number.

{51} In deciding these disputes, the courts tend to treat frequency designators as addresses -- that is, as a term describing the approximate location of the broadcast service on the FM dial. This utilitarian function of facilitating frequency location throws the designator into the category of descriptive terms. As such, the designators have been treated much like geographic terms in other trademarks: they lack inherent distinctiveness, and are protectable only upon a showing of secondary meaning. The rounded frequency designator therefore might be distinctive if a plaintiff could show that it was associated in the minds of consumers with the source of a particular broadcast service, rather than as an aid to locating the broadcast frequency. However, as a practical matter, plaintiffs in reported cases have shown a marked inability to offer such proof, perhaps because of the uncoupling of call letters and frequency numbers: distinctiveness is easily shown for call letters because they act almost exclusively as a name, whereas distinctiveness is difficult to show for frequency numbers, because they act almost exclusively as an address.

**Telephone Mnemonics**

{52} A third real space analogy to cyberspace domain names might be that of telephone numbers, which act both as names and logical addresses. Several trademark cases have recently been decided involving the use of "vanity" telephone numbers, which correspond to alphanumeric designators that are easy for consumers to remember and associate with the business at that number. For example, "L-A-W-Y-E-R-S" serves as a
mnemonic for 529-9377, the number of a law firm. Such telephone mnemonics bear a close resemblance to the mnemonic domain names associated with IP addresses, and legal decisions regarding their status as trademarks suggest that domain names may be protectable.

{53} Courts have almost unanimously held that telephone mnemonics may be protectable as trademarks, and have readily applied the law regarding the likelihood of confusion to such marks. In *Dranoff-Perlstein Assocs. v. Sklar*, plaintiffs who used the telephone mnemonic "INJURY-1" to advertise their personal injury legal services sought an injunction against defendants who used the mnemonic "INJURY-9" to advertise their legal services. The trial court denied the motion, holding that the plaintiff's marks was generic or at best descriptive without having been shown to have secondary meaning. The appellate court partially agreed, reasoning that the term "INJURY" was so commonly descriptive of personal injury representation that it must be generic.

{54} However, the appellate court in *Dranoff-Perlstein* noted that marks must be assessed "as a whole," and the marks in question differed in their numerical suffixes. It further noted that where two marks share generic portions but differ in non-generic portions, it is presumed that the public tends to distinguish the marks on the basis of the non-generic portions. Thus, any confusing similarity between the marks "INJURY-1" and "INJURY-9" would depend on the likelihood of confusion between the marks, taking each as a whole, with particular emphasis on the likelihood of confusing the suffix "1" with "9." The case was remanded for findings on the likelihood of such confusion, taking into account the familiar factors of confusion analysis.

{55} In some instances, however, there may be no question that a single digit difference will be confusing. In *Holiday Inns v. 800 Reservations*, plaintiff sought to enjoin defendant's use of a telephone mnemonic that differed from plaintiff's "1-800-HOLIDAY INN" mnemonic by one critical digit. The defendant was aware that telephone users routinely confuse the letter "O" with the numeral "zero" when dialing mnemonic telephone designators. The defendant therefore secured the "complementary" number, 1-800-H-[zero]-LIDAY, that is 1-800-405-4329, expecting that some number of callers intending to contact Holiday Inn reservations would instead dial his number. Callers who did so would be connected to defendant's hotel travel agency, which offered booking for not only Holiday Inn, but other hotel chains. The defendant's business received a fee for placement of reservations.

{56} The court held that this use of a similar telephone mnemonic was "parasitic." The defendant admittedly attempted to avoid passing his service off as that of Holiday Inn's, and arranged to have the "complementary" number answered with a recording stating that the caller had not reached Holiday Inn, but a reservation service that would assist in finding the lowest hotel rate at Holiday Inn or elsewhere. This was not persuasive to the court, which found that the recording was in fact likely to increase customer confusion by offering new options at the moment the customer is most confused, having attempted to contact one service and mistakenly contacted another. The court noted further that, "Defendant's use of plaintiff's [1-800-HOLIDAY INN] mark involves more than the likelihood of confusion -- our present technology allows defendants to use plaintiff's mark in such a way that they can anticipate actual confusion with absolute accuracy and can profit accordingly." The injunction was issued against 800 Reservations.

**Generic Mnemonics**

{57} As might be supposed from the analysis in *Dranoff-Perlstein*, the problem of generic terms runs throughout the telephone mnemonic cases. The fear that a common term might be monopolized by granting it trademark status is in fact exacerbated by the fixed correspondence between numerals and letters on the telephone keypad. There is some redundancy in this code since there is a three to one correspondence...
between letters and digits. For example, the letters A, B, and C are all assigned to the numeral 2. Thus, although there is redundancy in the code, it is with regard to words, not numbers. Within a given area code, there is only one telephone number that corresponds to a given mnemonic word. Control of that telephone number is tantamount to control of the word as a mnemonic device.

{58} The exception to this exclusivity is, of course, the availability of toll-free "800" numbers, which transcend area codes since they are accessible nationwide. Thus, in the telephone cases, the clash between mnemonics is frequently between a local number and an "800" number with the same or similar mnemonic. In Dial-a-Mattress Franchise Corp. v. Page,[109] the plaintiff held a local exchange number corresponding to the mnemonic "mattres"; the plaintiff successfully enjoined a competitor's use of the analog "800" number within that area code. The trial court's finding that the competing "800" mnemonic could be confusingly similar was upheld on appeal.[110]

{59} In contrast, the case of Bell v. Kidan[111] involved the use of a similar "800" number. This was found unlikely to confuse consumers, in part because it was not a toll call.[112] Plaintiff used the mnemonic "CALL-LAW" in advertising their legal services; they sought to enjoin use of defendant's mnemonic "1-800-LAW-CALL" in the same area.[113] In assessing plaintiff's likelihood of success on the merits, the trial court reviewed the factors indicating likelihood of confusion, and noted that the difference between a toll call and an "800" call was likely to be of significance to consumers, who would expect even a slight difference in numbers to yield a different connection.[114] This analysis similarly weighed the consumer sophistication factor against the plaintiff; the court reasoned that consumers are familiar with the difference between local toll calls and "800" calls.[115] The court denied injunctive relief.[116]

Transplanted Marks

{60} The emergence of Internet trademarks offers a clear opportunity to come to grips with the issue of names and addresses inherent in the use of designators as trademarks. The real space examples reviewed here show that cyberspace is not unique in harboring designators that function as both names and addresses, and these designators will frequently be employed as trademarks or servicemarks. In the case of geographic place names, the distinction between naming and addressing appears to have gone entirely unrecognized. In the case of broadcast designators, where the two functions have come almost completely uncoupled, the failure to recognize the distinction between naming and addressing has generated a highly idiosyncratic and somewhat confused body of cases. In neither instance have the courts considering these real world designators articulated broad principles that might be readily transferred to new fact patterns, such as those arising on the Internet.

{61} Neither has the distinction between naming and addressing been expressly articulated in the cases considering telephone mnemonics. However, in these cases, factual and technological similarities to the Internet domain name incidents offer a ready comparison from which some general principles may be drawn. As the telephone mnemonic cases reviewed above indicate, the dual nature of a designator such as a telephone number or domain name is no bar to rational application of established trademark law. Such cases are exceptionally helpful in charting the likely progression of trademark law on the Internet. The telephone cases suggest: first, that domain names, like telephone mnemonics, are potentially protectable as trademarks; and second, that domain names, like telephone mnemonics, should be susceptible to the accepted infringement analysis applied to other types of trademarks.

{62} However, this is not to say that consideration of domain names as trademarks will not entail its own idiosyncracies. The calculus of mark strength in the kind of Internet dispute encountered thus far may not be as straightforward as one might initially assume. To date, the domain names in dispute have drawn much of
their recognition and goodwill from their use as trade or service marks in real space. This may in some instances turn the usual classification of marks on its head, as they are in essence being applied to a new service. Considered in the abstract, there is no particular reason to suppose that cybernauts happening upon a domain designated "McDonalds.com" or "Kaplan.com" would associate those sites with a source of hamburgers or testing services in real space -- the world is full of individuals named McDonald and Kaplan, any of whom might have registered such domain names with the InterNIC. This seems to weaken the presumption of distinctiveness for arbitrary marks transported to the new medium. By contrast, a site designated with a fanciful name such as "Exxon.com" seems inherently distinctive whether in real space or cyberspace. And a generic mark from real space may become arbitrary when used to designate a domain name such as "muffin.com."

{63} This carry over from real space to cyberspace suggests that a key factor in analyzing the likelihood of consumer confusion will be the "proximity" of the marks. Use of the name "McDonald's" to peddle hamburgers in real space may not necessarily overlap with the use of the same name for a resource locator in cyberspace; the two uses may be in distinctly different markets. They may also involve very different services, as the major commodity on the Internet is information, rather than hamburgers. This is beginning to change, however, as companies begin to use their net presence to allow customers to order products including fast food delivery of pizzas.[117] Consequently, the real and virtual markets may eventually converge.

{64} By contrast, the use of marks like "MTV" or "Kaplan" on the Internet may already entail a high likelihood of confusion, as they are associated with entertainment or information in both real space and cyberspace. In such instances, the use of the Internet becomes a natural extension of the service offered in real space. This increases not only the prospect that the marks overlap in proximity but also the occasion for parasitic or bad faith use of the mark. It seems relatively clear, for example, that at least some of the notoriety of the "mtv.com" site was generated by Curry's real space association with the MTV broadcast channel. Similarly, there is no question, indeed the Princeton Review openly admits, that their use of "kaplan" in their domain name was designed to capture potential rivals of their customer. Additionally, such cases appear to use the technology to anticipate actual confusion, as in the Holiday Inns case.

Emerging Cybermarks

{65} Although the Internet's present trademark disputes appear imported from real space, this will not always be the case; eventually the disputes will be home-grown. The dispute between Wired and Women's Wire is an early precursor to such conflicts: the heart of the dispute was not the appropriation of a well-known mark from real space, but the confusing similarity between two marks in cyberspace. As Internet commerce becomes more common, we may expect that certain domains will acquire a reputation based entirely on their Internet activities -- as Adam Curry's "metaverse.com" site seems to be doing. Development of a competing site with a similar mnemonic, such as "metaverse.net" or "multiverse.com" would raise the possibility of confusing similarity between two cyberspace-based marks -- "cybermarks" if you will.

{66} Such disputes need not be divorced from the law of real space, however, and precedent such as the telephone mnemonic cases will continue to be helpful, so long as it is realized that, at some point, the correspondence between telephone numbers and IP addresses will break down. For example, although the strength of the cybermark will likely be assessed as much as any trademark, the problem of generic terms may be of lesser concern than in the telephone mnemonic cases. Generics in general go unprotected because they are words necessary to all competitors in a given market. At least part of the rationale underlying the policy toward generic telephone mnemonics is the static correspondence between telephone numbers and their associated letters on the telephone key pad -- only one telephone number in an area will correspond to the term. However, unlike telephone mnemonics, domain name mnemonics are entirely separable from their
underlying IP addresses, and completely portable to a new Internet resource site. Thus, there is no necessary monopoly of a mnemonic when an IP address is assigned; any alphanumeric string may be chosen as the corresponding domain name.

{67} The problem of confusion between domain names may also be lessened if, as in Dranoff-Perlstein, the domain name must be taken as a whole when assessing the likelihood of confusion. Imagine for example competing computer program vendors who have registered, respectively, "software.net" and "software.com" as their domain sites. Under the analysis of Dranoff-Perlstein, the word "software" must surely be generic as it is a common descriptive term, and likely essential to the advertising and business operations of any purveyor of computer programs. This does not necessarily render the competing domain names unprotectable, however; the analysis will simply shift to whether or not there is a likelihood of confusion between the top-level domain designations ".com" and "net" when used as part of the full domain names.

{68} Such an analysis suggests that the factor of consumer sophistication may also prove important: a result that is problematic, as the computer literacy of cyberspace is currently in flux. Until very recently, the majority of Internet users were relatively experienced in the use of the medium; like consumers who can readily distinguish an "800" telephone number from a toll call, Internet users would likely distinguish a "wired.com" from "wire.net" simply by recognizing the top-level domain designation. However, the recent and burgeoning influx of computer neophytes or "newbies," onto the Internet may have drastically altered the likelihood of domain name discrimination. Ironically, this flood of new net citizens, which appears to have greatly diluted the mean level of user sophistication, is also driving the movement toward commercialization. A large pool of such cyberspace consumers is critical to the viability of any electronic business venture, and in time they will likely become discriminating cybermarket patrons. In the interim, however, their appearance on-line may increase the chances that a court will find a likelihood of confusion between similar domain designations.

Conclusion

{69} As commercial use of the Internet becomes increasingly common, designation of goods and services by on-line trademarks, or "cybermarks" will gain in significance. Businesses that are willing to venture out into cyberspace will wish to advertise and differentiate their services; lack of settled trademark rights may deter them from investing in such ventures. However, the established law of trademarks appears admirably suited to providing such surety. Although cybermarks may in some cases function as both names and addresses, established trademark doctrines are well able to accommodate such designators. As a consequence, doctrines applied to decide disputes in real space over marks such as telephone number mnemonics will be extended to resolve disputes over trademarks in cyberspace.

See the related readings

*Journal* staff members have compiled a list of hypertext links of information contained on the Internet that may be of interest to you.

Footnotes

[**]NOTE: All endnote citations in this article follow the conventions appropriate to the edition of *The Bluebook: A Uniform System of Citation* that was in effect at the time of publication. When citing to


[7] Id. at 8-11.


[15] Id. at 71.

[16] Id. at 69-70.


[18] Id. at 75-76.

[19] Id. at 73-74.

[20] Id. at 74.

[21] Id. at 71.

[23] Id.
[26] Id.
[32] Id.
[34] *Video Jockey Butts Head with MTV over Internet*, *supra* note 25, at 6C.
[38] Quittner, *supra* note 35, at A05.
[39] Id.
[43] 1 JEROME GILSON, TRADEMARK PROTECTION AND PRACTICE § 1.02[1][b] (1994).
§ 11.3; see also Exxon Corp. v. Xoil Energy Resources, 552 F. Supp. 1008, 1014 (S.D.N.Y. 1981) ("Exxon" mark is arbitrary and accorded greatest possible degree of protection).

§ 11.2.

§ 11.9.

§ 11.1[1].

§ 12.01[1].

§ 12.1[1].

§ 12.1[1].

§ 18.03 (4th ed. 1994).

§ 19.43 (explaining the proposition and citing contrary authority as exceptions).

§ 19.43 (discussing geographic names as trademarks).

§ 19.43.

§ 19.43.

§ 303(o) (1988); see also Allen B. Dumont Lab. v. Carroll, 184 F.2d 153, 155 (3d Cir. 1950) (interpreting the term "radio Broad." within the statute to include all forms of television transmission).


§ 73.3550(h) (1994).

§ 303(o) (1988); see also Allen B. Dumont Lab. v. Carroll, 184 F.2d 153, 155 (3d Cir. 1950) (interpreting the term "radio Broad." within the statute to include all forms of television transmission).

§ 73.3550(h) (1994).


§ 343679, at *6.

§ 281, 286 (N.D. Ind. 1984).

§ 1283, 1295 (Del. Ch. 1985).

§ 1290-91 (testimony of Daniel A. Dinnsen, Professor of
[71] See, e.g., Virginia Tech Foundation, 666 F. Supp. at 858 (“The experts, in my opinion, did more to obfuscate the problem than they did to clarify it. . . . In my judgment, this is a classic misuse of expert testimony, and I give very little weight to any of it.”) (Kiser, J.).


[75] Id.


[80] Id. at *3.

[81] Id. at *4.


[83] Id.

[84] Id.


[89] Walt-West Enters., 695 F.2d at 1052 n.1.


[92] Walt-West Enters., 695 F.2d at 1059; Covenant Radio, 390 A.2d at 953-54.

3 A.LTMAN, supra note 50, § 18.23. But see Cytanovich Reading Ctr. v. Reading Games, 208 Cal. Rptr. 412 (1984) (declining to recognize telephone mnemonic as a trademark).


Dranoff-Perlstein, 967 F.2d at 853.

Id. at 860.

Id.

Id. at 861.

Id. at 862.


Id. at 1250-51.

Id. at 1251, 1253.

Id. at 1255.

Id. at 1253, 1255.

Id. at 1255.

Id.

Id.

880 F.2d 675 (2d Cir. 1989).

Id. at 678.


Id. at 127.

Id. at 126.

Id. at 127.

Id.

Id. at 128.