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Intangible Takings

Susan Eisenberg

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NOTES

Intangible Takings

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I. INTRODUCTION

“[T]he Constitution protects us from our own best intentions.”¹ During times of grave emergency, the powers granted and reserved by the federal government remain unaltered in order to avoid shortsighted solutions that would, in the long run, be worse than the

1. New York v. United States, 505 U.S. 144, 187 (1992).

current crisis.² Even a simple cure for appreciable suffering may have larger implications, and the rule of law does not know whether it is constraining good or aiding evil.

In the aftermath of Hurricane Katrina, the most costly natural disaster in U.S. history,³ the Federal Communications Commission ("FCC") imposed a shortsighted resolution that tested the boundaries of its authority. Under previously unused powers to prevent the "warehousing, hoarding, and brokering of toll-free numbers,"⁴ the FCC unilaterally transferred one private party's phone number to another private party, without offering any form of compensation.⁵ An entrepreneur had originally registered the number, 1-800-RED-ARMS, for his company of the same name.⁶ When the number's use increased during earthquakes, tornadoes, and floods, he realized his

2. See *Home Bldg. & Loan Ass'n v. Blaisdell*, 290 U.S. 398, 425 (1934). Chief Justice Hughes stated:

Emergency does not create power. Emergency does not increase granted power or remove or diminish the restrictions imposed upon power granted or reserved. The Constitution was adopted in a period of grave emergency. Its grants of power to the Federal Government and its limitations of the power of the States were determined in the light of emergency and they are not altered by emergency.

Id.

3. See Eric Lipton, *A View of the Political Storm After Katrina*, N.Y. TIMES, Dec. 4, 2005, § 1, at 39 (stating that Hurricane Katrina was "the most costly natural disaster in United States history"); Letter from George W. Bush, President of the United States, to Dennis Hastert, Speaker of the House of Representatives (Sept. 1, 2005), available at <http://www.whitehouse.gov/news/releases/2005/09/20050901-6.html> (requesting funds for emergency relief for "one of the worst natural disasters in our country's history").

4. *In re Toll Free Serv. Access Codes*, 20 F.C.C.R. 15,089, ¶ 4, at 15,090 (Sept. 2, 2005) [hereinafter *FCC Order*]. The FCC also claims authority under an administration regulation stating that toll free numbers are to be assigned "on a first-come, first-served basis *unless otherwise directed by the Commission*." 47 C.F.R. § 52.111 (2007) (emphasis added). In addition, the FCC has the authority to waive its rules if "good cause" is shown and if "strict compliance" of the rule would be "inconsistent with the public interest." 47 C.F.R. § 1.3 (2007); *Ne. Cellular Tel. Co. v. FCC*, 897 F.2d 1164, 1166 (D.C. Cir. 1990) (summarizing the holding of *WAIT Radio v. FCC*, 418 F.2d 1153 (D.C. Cir. 1969)). Most recently, the District of Columbia Circuit declared that the FCC's waiver policy was "outrageous, unpredictable, and unworkable . . . [and] susceptible to discriminatory application," and therefore vacated the FCC's waiver of rule for a cellular radio lottery because there were no standards by which to measure the waiver policy. *Ne. Cellular Tel. Co.*, 897 F.2d at 1167.

5. See Kevin Poulsen, *Red Cross Gets Squatter's Number*, WIRED, Sept. 7, 2005, <http://www.wired.com/news/technology/hurricane/1,68774-0.html> (discussing the FCC's confiscation of 1-800-RED-CROSS without compensation to the owner); *FCC Order*, *supra* note 4, at 15,091 (noting that the American Red Cross, not the FCC or federal government, "has represented that it will reimburse [the entrepreneur] for the reasonable costs of relinquishing this number").

6. The entrepreneur, Steve Parker, "claims he acquired the phone number after founding a company called Red Arms." Poulsen, *supra* note 5. However, the Red Cross and FCC believe Parker, who founded 800-Ideas.com and admittedly "make[s] [a] living off of phone numbers that spell words," is a "corporate digi-squatter." *Id.*

fateful overlap: 1-800-RED-ARMS has the same underlying keypad sequence as 1-800-RED-CROSS (1-800-733-2767).⁷ During emergencies, the entrepreneur voluntarily routed calls to local American Red Cross chapters, charging only reimbursement costs.⁸ Failed negotiations to transfer the number permanently (the charity had steadfastly refused to pay six figures)⁹ led the Red Cross to make an emergency request to the FCC. In the wake of Hurricane Katrina, which “propelled the Red Cross into its largest U.S. relief effort in history,”¹⁰ the FCC intervened and ordered that the number be reassigned to the Red Cross.¹¹

It is not immediately obvious whether Red Arms has any legal protection for the loss of its telephone number. Although courts generally recognize intellectual property rights in vanity telephone numbers, the Red Arms example does not implicate digi-squatting or trademark infringement laws, as Red Arms’ primary intention was not to profit from public confusion.¹² Red Arms neither purported to be the Red Cross nor attempted to collect donations.¹³ Rather, this situation involves the rights to a phone number’s underlying digits, 733-2767, separate from its alpha-numeric “RED-ARMS” mnemonic. The FCC and the majority of courts, however, fail to recognize any ownership rights in the underlying number itself. As a result, traditional Takings Clause jurisprudence is inapplicable, and phone numbers and similar forms of intangible interests generally lack the constitutional protection given to established forms of property.

Most scholarship on the Takings Clause deals with its conduct aspect, and legal journals are filled with commendable efforts to determine the point at which a government regulation becomes a compensable taking. This Note, however, concentrates on the property aspect of the Takings Clause and attempts to determine the point at

7. The second “S” in Red Cross is ineffectual. Once the seven-digit phone number is dialed, the call connects and any extra numbers dialed serve no purpose. See *Am. Airlines v. 1-800-A-M-E-R-I-C-A-N Corp.*, 622 F. Supp. 673, 676 (N.D. Ill. 1985) (finding that the eight letter “N” in 1-800-American “superfluous to a seven-digit telephone number”).

8. Poulsen, *supra* note 5. The American Red Cross used the phone number 1-800-HELP-NOW (1-800-435-7669). *Id.*

9. See *id.* (“They were talking about the kinds of money that changed hands for 1-800-FLOWERS, which is ridiculous.” (quoting Chuck Connor, Senior Vice President of Communication and Marketing for the American Red Cross)).

10. *Id.*

11. *FCC Order*, *supra* note 4, at 15,091 (“It is ordered . . . that Database Service Management, Inc. . . . reassign the toll-free number that spells 1-800-RED-CROSS (1-800-733-2767) to the national chapter of the American Red Cross for a period of one year.”).

12. Digi-squatting involves profiting from another’s trademark by purporting to be affiliated. See *infra* Part II.B.3.

13. See Poulsen, *supra* note 5.

which an intangible interest becomes compensable “private property” under the Fifth Amendment.¹⁴ In particular, this Note focuses on emerging, intangible property interests such as phone numbers, domain names, screen names, and email addresses, collectively dubbed “entity locators,”¹⁵ which are not recognized as property under conventional legal doctrines or FCC regulations. This Note addresses the question of whether the term “property” in the Takings Clause embodies these interests.

Granting property-like protection to intangible rights is neither intuitive nor instinctive, and the Red Arms example illustrates the logical snag. On the one hand, because the Fifth Amendment ensures just compensation for sovereign “taking” of “private property,” reasonable limiting principles are necessary in order to encourage desirable government regulation without bankrupting the national treasury.¹⁶ First, it may be costly to identify and compensate for rights that are transient and indefinite, as many intangible interests are.¹⁷ Second, when too many interests are implicated by the Takings Clause the government only loses since there is no reciprocal “Givings” Clause, and the government does not impose a tax to capture external benefits from its value-increasing regulations.¹⁸ On the other hand, perhaps the Fifth Amendment *should* be triggered by such intangible property interests because the Takings Clause purports to prohibit exactly the sort of government conduct in which the FCC participated: a blatant redistribution of resources from one private party to another.¹⁹ The Takings Clause demands compensation when the

14. In the Red Arms example, it is easy to see that the government action was an actual deprivation of an interest rather than a more ambiguous diminishing of value.

15. J. Theodore Smith, Note, “1-800-RIPOFFS.COM”: *Internet Domain Names Are the Telephone Numbers of Cyberspace*, 1997 U. ILL. L. REV. 1169, 1191.

16. U.S. CONST. amend. V. If the government was obligated to compensate for every regulation that diminished an individual’s property value, the government would have little incentive to regulate for the public good. See GEOFFREY R. STONE ET AL., *CONSTITUTIONAL LAW* 971 (4th ed. 2001) (stating that all government action diminishes property value, and compensation in these instances would result in far less redistribution).

17. For example, compensating Red Arms for its “property,” a mere phone number, might lead to a parade of horrors, where too many intangible interests fall within the scope of the Takings Clause. Recognizing phone numbers as a form of property under the Takings Clause could lead to an undue broadening of the Takings Clause if additional intangible interests are recognized, such as certain screen names or instant messages.

18. See STONE ET AL., *supra* note 16, at 971-72 (commenting that “many people are ‘winners’ from regulation” but are not taxed for these winnings). For example, if the government imposed an anti-pollution regulation that resulted in increased property value, landowners would not be required to compensate the government.

19. *Calder v. Bull*, 3 U.S. (3 Dall.) 386, 388-89 (1798). In *Calder*, the Court stated: [A] law that takes property from A and gives it to B: It is against all reason and justice, for a people to entrust a Legislature with SUCH powers; and, therefore, it cannot be presumed that they have done it. The genius, the

government forces a private person to benefit the public, and therefore, Red Arms arguably deserves compensation for its loss.²⁰

One stumbling block for judges and academics alike in determining whether intangible interests deserve protection has been evaluating the importance (or lack thereof) of "entity locator" rights.²¹ In the Red Arms example, pragmatically speaking, did someone at the FCC actually believe that a phone number was necessary to control the crisis? Was it such an ordeal to look up the Red Cross in a phone book?²² More importantly, does a state have authority to "take" a seemingly inconsequential right, ever?

When new technology emerges, a judicial struggle ensues between tendencies to apply established legal doctrine strictly and impulses to expand the law to promote fairness. In the realm of phone numbers, many courts have attempted to resolve the FCC's rigid, ownership-denying regulation scheme by granting property-type protections on an ad hoc basis. The first objective of this Note is to explain the current state of statutory and common law surrounding phone numbers. Part II provides a brief overview of the stature of property in the Takings Clause and conventional ownership rights in phone numbers as determined by FCC regulations and the doctrines of contract and intellectual property law. In addition, Part II presents the points of conflict between the established law and consumer expectations created by emerging and evolving applications of phone numbers. Part III analyzes two contemporary approaches to regulating ownership rights in phone numbers and their corresponding drawbacks. Finally, Part IV outlines a novel judicial approach to the problem that adheres not only to the objective of the FCC's administration of phone numbers, but also to consumer

nature, and the spirit, of our State Governments, amount to a prohibition of such acts of legislation; and the general principles of law and reason forbid them. The Legislature may enjoin, permit, forbid, and punish; they may declare new crimes; and establish rules of conduct for all its citizens in future cases; they may command what is right, and prohibit what is wrong; but they cannot . . . violate the right of . . . private property. To maintain that our Federal, or State, Legislature possesses such powers, if they had not been expressly restrained; would, in my opinion, be a political heresy, altogether inadmissible in our free republican governments.

Id.

20. See STONE ET AL., *supra* note 16, at 973 (discussing how individuals should be compensated when they are forced to do a public good as opposed to prevented from doing a public harm).

21. See Smith, *supra* note 15, at 1191 ("In order for a domain name to acquire trademark rights, it must be used as a source identifier and not just as an entity locator." (citation omitted)).

22. Or was it such an ordeal to look up the Red Cross in a newspaper or the bottom-line news ticker of television coverage, both of which liberally publicized 1-800-HELP-NOW as a way to telephone the Red Cross?

expectations and the protections (and limitations) central to the Constitution.

II. THE LEGAL CONTEXT OF INTANGIBLE TAKINGS

A. *Constitutional Protection of Private Property*

Concerned with government tyranny, the Framers of the Constitution included two clauses to protect an individual's property from government interference. The first, the Takings Clause, imposes two important limitations on the government's ability to take private property: 1) the taking must be for "public use," and 2) the government must pay "just compensation."²³ The second, the Due Process Clause, adds that any deprivation of property requires "due process of law."²⁴ The Founders believed that protecting an individual's property is the primary means of protecting individuals from the threats of excess and oppression by the majority, and included the Takings Clause their Bill of Rights.²⁵ According to James Madison, "The Takings Clause was designed to limit the sovereign's prerogative to exercise the eminent domain power;" in other words, it was designed to constrain the ability of the majority to "trample on the rights of minorities."²⁶ Thus, certain government redistributions are deemed inappropriate, such as pure wealth transfers—taking from A in order to benefit B—supported "only by a preference for B, or by B's political power."²⁷ The Takings Clause aspires to "limit the government's incentive to arbitrarily take the property of the populace by putting a price tag on it."²⁸ Effectively, the state should take property only when its people are willing to pay a fair price for it, ensuring that the taking will occur for the common good.²⁹

23. U.S. CONST. amend. V ("[N]or shall private property be taken for public use, without just compensation.").

24. *Id.* ("No person shall . . . be deprived of life, liberty, or property, without due process of law.").

25. Shubha Ghosh, *Toward a Theory of Regulatory Takings for Intellectual Property: The Path Left Open After College Savings v. Florida Prepaid*, 37 SAN DIEGO L. REV. 637, 666-68 (2000).

26. *Id.* at 668. Some modern scholars, such as Professor Richard Epstein, believe property "is the primary surrogate and measure of individual liberty" and that the purpose of the Takings Clause is "to protect individual liberty." *Id.*

27. STONE ET AL., *supra* note 16, at 960.

28. Daniel R. Cahoy, *Treating the Legal Side Effects of Cipro®: A Reevaluation of Compensation Rules for Government Takings of Patent Rights*, 40 AM. BUS. L.J. 125, 142 (2002).

29. *Id.*

In order to invoke the protections of the Property Clauses, a party must meet the threshold requirement of having a cognizable interest in "property." The technological revolution has contrived new property interests that do not fit neatly into any traditionally protected property forms, highlighting the interesting question: What types of emerging interests does the Takings Clause protect?

1. Defining Property in the Takings Clause

"Property" is a comprehensive word; it refers not only to things that are objects of ownership, but it also applies to the rights that a person may acquire in things.³⁰ The term designates "an aggregate of rights which are guaranteed and protected by the government."³¹ Courts have held that a property interest is "the right to possess, use, and dispose of" a tangible or intangible thing,³² and "to exclude everyone else from interfering with it."³³ More succinctly, the term property denotes "any vested right of any value."³⁴

The meaning of "property" is not consistent throughout the Constitution, and this Note explores the meaning of "property" only under the Takings Clause.³⁵ The Supreme Court has held that legislatures or courts, but not the Constitution, create interests in Takings property. Moreover, to ascertain whether an interest or expectancy amounts to cognizable property is a two-step process. First, a court will find the definition of that interest in state law, and next determine whether its properly construed scope and meaning

30. 73 C.J.S. *Property* § 1 (2005).

31. *Clance v. Clance*, 127 S.W.3d 716, 723 (Mo. Ct. App. 2004).

32. *Ruckelshaus v. Monsanto Co.*, 467 U.S. 986, 1003 (1984).

33. *Consol. Constr. Servs. Inc. v. Simpson*, 813 A.2d 260, 269 (Md. 2002) (quoting BLACK'S LAW DICTIONARY 1216 (6th ed. 1998)).

34. *Aranda v. Indus. Comm'n*, 11 P.3d 1006, 1010 (Ariz. 2000) (quoting *Rio Rico Props. v. Santa Cruz County*, 834 P.2d 166, 174 (Ariz. Bd. Tax App. 1992)).

35. A pragmatist might suggest giving the same word the same meaning throughout a single document; however, the term "property" has not received that treatment in its appearances throughout the Constitution. The meaning of property in the Takings Clause is generally recognized to be a narrower definition than its meaning in the Due Process Clause. Compare *Goldberg v. Kelly*, 397 U.S. 254, 262 n.8 (1970) (finding that welfare benefits fit within the definition of property for procedural due process purposes) with *Richardson v. Belcher*, 404 U.S. 78, 80 (1971) (finding that "the analogy drawn in *Goldberg* between social welfare and 'property' cannot be stretched to impose a constitutional limitation on the power of Congress to make substantive changes in the law of entitlement to public benefits") and *Bowen v. Gilliard*, 483 U.S. 587, 605 (1987) (finding that welfare benefits are not "protected property rights;" therefore, if the government reduces the benefits it "does not constitute a taking of private property without just compensation"); see also Thomas W. Merrill, *The Landscape of Constitutional Property*, 86 VA. L. REV. 885, 955-58 (2000) (discussing the differences between the definition of "property" under the Takings Clause and the Due Process Clause).

includes the characteristics of “property under the Takings Clause,” dubbed “constitutional property.”³⁶ In *College Savings Bank v. Florida Prepaid Postsecondary Education Expense Board*, for example, the Supreme Court held that the “hallmark” characteristic of “constitutional property” is that it includes “the right to exclude others.”³⁷

Courts have long recognized intangible property as a viable property interest,³⁸ and eminent domain jurisprudence has held that the Takings Clause protects intangible property.³⁹ In *Ruckelshaus v. Monsanto*, the Supreme Court held that “commercial data” in the form of a trade secret constituted property subject to a governmental taking because it was exclusive.⁴⁰ Moreover, the Court held that the extension of Takings rights from tangible to intangible property was a rational move since the “notion of property . . . extends beyond land and tangible goods and includes the products of an individual’s ‘labour and invention.’ ”⁴¹ Next, the majority opinion acknowledged that “to the extent” that the plaintiff had an interest in his data “as a trade-secret property right under Missouri law[,] that property is protected by the Takings Clause of the Fifth Amendment.”⁴² Therefore, when recognized by state or federal laws, intangible property may constitute property under the Takings Clause.

36. See Merrill, *supra* note 35, at 945.

37. *Coll. Sav. Bank v. Florida Prepaid Postsecondary Educ. Expense Bd.*, 527 U.S. 666, 673 (1999) (“The hallmark of a protected property interest is the right to exclude others. That is ‘one of the most essential sticks in the bundle of rights that are commonly characterized as property.’ ”). It is worth noting that in *Board of Regents of State Colleges v. Roth*, the Supreme Court held that property constitutes “those claims upon which people rely in their daily lives.” 408 U.S. at 577 (interpreting the Due Process Clause).

38. For more than a century, intangible interests have been found to constitute property. See, e.g., *W. River Bridge Co. v. Dix*, 47 U.S. (6 How.) 507, 534 (1848) (franchise rights); *Dodds v. Shamer*, 663 A.2d 1318, 1324 (Md. 1995) (liquor license); *Simpson v. Jersey City Contracting Co.* 58 N.E. 896, 898 (N.Y. 1900) (shares of stock); *Menefee v. Columbia Broad. Sys., Inc.*, 329 A.2d 216, 220 (Pa. 1974) (broadcasting personality of a radio host).

39. See, e.g., *Ruckelshaus v. Monsanto Co.*, 467 U.S. 986, 1003 (1984) (holding that a trade secret constitutes property under the Takings Clause); *Kimhall Laundry Co. v. United States*, 338 U.S. 1, 11 (1949) (“[T]he intangible acquires a value to a potential purchaser no different from the value of the business” physical property. Since the Fifth Amendment requires compensation for the latter, the former, if shown to be present and to have been “‘taken,’ should also be compensable.”).

40. *Ruckelshaus*, 467 U.S. at 1011. The Court in *Ruckelshaus* stated:

With respect to a trade secret, the right to exclude others is central to the very definition of the property interest. Once the data that constitute a trade secret are disclosed to others, or others are allowed to use those data, the holder of the trade secret has lost his property interest in the data.

Id.

41. *Id.* at 1003.

42. *Id.* at 1003-04.

2. Absence of Qualifying Test for Intangible Property Interests

Property is a dynamic concept, “evol[ing] over time in response to changing technologies and changing levels of supply and demand.”⁴³ Regrettably, Supreme Court Takings jurisprudence has failed to acknowledge a definitive test or rule to determine when emerging, intangible rights amount to “property” under the Takings Clause. As a result, courts and legislatures, afraid to depart from established legal doctrine, struggle to keep pace with innovations in technology. Consequently, emerging property interests may fail to receive appropriate protection.

B. Traditional Law Affords No Property Interest in Phone Numbers

Administrative agency regulations refuse to recognize property rights in a subscriber’s underlying telephone number.⁴⁴ Giving effect to the agency rules, courts have recognized only limited subscriber rights in telephone numbers, using two different approaches. Under the first approach, courts use the law of contracts to determine a subscriber’s rights, as telephone numbers are the product of service agreements between telephone companies and subscribers. Under the second approach, courts view vanity telephone numbers as a form of intellectual property that is protected from trademark infringement and unfair competition under both state common law⁴⁵ and the federal Lanham Trademark Act.⁴⁶

1. FCC Rules Governing Ownership of Phone Numbers

FCC regulations do not give subscribers any property rights in their phone numbers. The FCC’s *Notice of Proposed Rule Making* denies that the “assignment of a number implies ownership,”⁴⁷ and states that a subscriber’s intellectual property trademark rights in her vanity number “does not imply the existence of any ownership interest in the underlying number.”⁴⁸ The FCC seemingly provides subscribers

43. Merrill, *supra* note 35, at 945.

44. *In re Toll Free Service Access Codes*, Notice of Proposed Rulemaking, 10 F.C.C.R. 13,692, 37, at 13,702 (Oct. 5, 1995), available at http://www.fcc.gov/Bureaus/Common_Carrier/Notices/1995/fcc95419.html#Footnote%2085,%200Paragraph%2037 [hereinafter *Notice of Proposed Rulemaking*].

45. See, e.g., *Dial-A-Mattress Franchise Corp. v. Page*, 880 F.2d 675, 678 (2d Cir. 1989); *Murrin v. Midco Commc'ns, Inc.*, 726 F. Supp. 1195, 1200 (D. Minn. 1989).

46. 15 U.S.C. §§ 1051-1127 (1996).

47. *Notice of Proposed Rulemaking*, *supra* note 44, ¶ 37, at 13,702.

48. *Id.* ¶ 37, at 13,703.

a right-of-number retention by guaranteeing the fair allocation of toll-free phone numbers under 47 C.F.R. § 52.111 (the Telecommunications Act), which states that vanity numbers are to be given out on a first-come, first-served basis.⁴⁹ However, § 1.7 authorizes the FCC to waive its rules for good cause.⁵⁰ The actual implications of such authority, nevertheless, appear uncertain. In *Northeast Cellular Telephone Co. v. FCC*, for example, the D.C. Circuit held that the FCC had no authority to waive its rule granting a license to a cellular radio lottery winner because the waiver policy lacked appreciable standards, and therefore, “was “outrageous, unpredictable, and unworkable . . . [and] susceptible to discriminatory application.”⁵¹

In addition, the FCC refuses to let subscribers transfer their phone numbers to one another. More specifically, the FCC bans the “hoarding” and “brokering” of numbers.⁵² Hoarding is acquiring more numbers than the subscriber intends to use, and brokering is selling the extra numbers for a fee.⁵³ The driving force behind this FCC policy is fear of a property-like grab for vanity phone numbers.⁵⁴ As more numbers are registered, the FCC must open additional toll-free codes, and “[i]t is “time consuming and costly for the industry to perform the necessary modifications to the network so that it can support calls using the new code.”⁵⁵ In addition, hoarded phone numbers are stagnant and unused and thus inefficient.⁵⁶ Furthermore, the FCC believes that “brokering” numbers is against public interest. Allowing the sale of phone numbers would encourage hoarding them, leading to faster depletion.⁵⁷ The FCC has also found that when subscribers transfer numbers to one another, it “interferes with the orderly allocation of numbering resources.”⁵⁸

49. Toll Free Number Assignment, 47 C.F.R. § 52.111 (1998).

50. *Id.*

51. *Ne. Cellular Tel. Co. v. FCC*, 897 F.2d 1164, 1167 (D.C. Cir. 1990).

52. 47 C.F.R. § 52.107 (1996); *In re Toll Free Service Access Codes*, Notice of Proposed Rulemaking, 12 F.C.C.R. 11,162, ¶ 38, at 11,189 (Apr. 4, 1997), available at http://www.fcc.gov/Bureaus/Common_Carrier/Orders/1997/fcc97123.txt (last visited Jan. 17, 2007) [hereinafter *Second Report and Order*].

53. *Second Report and Order*, *supra* note 52, ¶¶ 33, 36, at 11,189.

54. Karl M. Manheim & Lawrence B. Solum, *An Economic Analysis of Domain Name Policy*, 25 HASTINGS COMM. & ENT. L.J. 359, 385 (2003) (discussing an analogous “land rush’ for the easy-to-remember domain names”).

55. *Second Report and Order*, *supra* note 52, ¶ 38, at 11,189.

56. *Id.*

57. *Id.*

58. *Id.*

2. Contract Law

Traditional legal doctrine provides that a person does not own the telephone number assigned to him.⁵⁹ Instead, a subscriber has a contractual right to use the number for a specified period through a service agreement with the local phone company.⁶⁰ A subscriber's interest in a phone number is limited to the contractual rights between the subscriber and the provider because courts view phone numbers as inextricably woven into the service contract.⁶¹ Stated differently, courts that apply contract law treat the individual phone number as merely part of the whole contract for service, which cannot "exist[] separate from its respective service that created it and that maintains its continued viability."⁶²

Under a traditional contract law approach, the sole remedial right available to subscribers comes in the form of contract damages arising from a breach by the service provider. However, most service contracts allow providers to change their subscribers' telephone numbers without facing liability to the subscribers. For example, in *First Central Service Corp. v. Mountain Bell Telephone*, the plaintiff sued Mountain Bell Telephone for conditioning the plaintiff's retention of the existing phone number of the business it had just purchased on paying the outstanding charges of the previous owner.⁶³ The New Mexico appellate court held that based on the service contract,⁶⁴ Mountain Bell "had an absolute right to discontinue service" because the subscriber "knows that Mountain Bell may change the telephone number whenever it considers it desirable in the conduct of its business."⁶⁵

This contract-for-services approach contains several deficiencies. First, a subscriber's rights are limited to those rights stated in the service agreement with the phone company and provided

59. See, e.g., *Jahn v. 1-800-Flowers.com, Inc.*, 284 F.3d 807, 810 (7th Cir. 2002).

60. See *id.* at 810-11 ("[C]arriers could change numbers without liability to the subscribers.").

61. See *Network Solutions, Inc. v. Umbro Int'l, Inc.*, 529 S.E.2d 80, 87 (Va. 2000).

62. *Id.* ("We are cognizant of the similarities between a telephone number and an Internet domain name and consider both to be products of contracts for services. In our opinion, neither one exists separate from its respective service that created it and that maintains its continued viability." (citations omitted)).

63. *First Cent. Serv. Corp. v. Mountain Bell Tel.*, 623 P.2d 1023, 1024-25 (N.M. Ct. App. 1981).

64. *Id.* ("The subscriber has no property right in the telephone number nor any right to continuance of service through any particular central office, and the Telephone Company may change the telephone number or central office designation of a subscriber whenever it considers it desirable in the conduct of its business." (emphasis in original)).

65. *Id.* at 1025.

by common law contract principles. Therefore, the subscriber's abilities to use, hold, transfer, and alienate the telephone number remain at the mercy of the provisions of the service agreement. In addition, a contractual right cannot be asserted by or against a third party not in privity with the telephone company.⁶⁶ Second, inconsistent contract provisions generally lead to disparate judicial treatment of telephone numbers and increased litigation and administrative costs, as lawyers and courts are continually required to interpret new and different provisions. In addition, idiosyncrasies in contract provisions increase transaction costs for third parties, such as potential phone service purchasers, who are required to research and compare contracts to find the terms that best meet their needs.⁶⁷

3. Intellectual Property Law

In the context of consumer confusion over two ostensibly similar vanity telephone numbers, courts invoke an analysis under trademark law.⁶⁸ Trademark law ignores the underlying number and instead protects the mnemonic spelled out in the vanity number. The common law of trademarks gives priority (senior user) rights to the first individual to use the mark in commerce against all subsequent (junior) users.⁶⁹ In order to qualify for protection, the mark must either be a descriptive mark that has acquired a secondary meaning or be inherently distinctive.⁷⁰ To establish trademark infringement, a plaintiff needs to prove ownership of a valid mark and a likelihood of confusion.⁷¹ The confusion standard is satisfied if "the public believes that 'the mark's owner sponsored or otherwise approved the use of the

66. See Anupam Chander, *The New, New Property*, 81 TEX. L. REV 715, 774 (2003).

67. The need to compare service agreements arises from increased technology in the telecom market, which has allowed new and competing service providers. Today, for example, a savvy consumer might compare their local telephone company's offer with that from commercial (e.g., Vonage) and proprietary (e.g., skype.com) VoIP providers.

68. Note that in the Red Arms example, the *vanity* numbers were different (1-800-RED-ARMS and 1-800-RED-CROSS). Rather, the *underlying* telephone numbers were the same and that is what led to consumer confusion. Poulsen, *supra* note 5.

69. Diana Lock, *Toll-Free Vanity Telephone Numbers: Structuring a Trademark Registration and Dispute Settlement Regime*, 87 CAL. L. REV 371, 395-96 (1999) ("The common law automatically provides ownership without registration when a person uses an inherently distinctive mark in trade or commerce, or a descriptive mark acquires secondary meaning. An individual obtains priority of rights in a mark by becoming a senior user, or the first to use the mark in commerce." (citation omitted)).

70. *Id.* at 395.

71. *Murrin v. Midco Comm'ns, Inc.*, 726 F. Supp. 1195, 1199 (D. Minn. 1989); *The Lanham Act*, 15 U.S.C. § 1125(a) (2005); see also Lock, *supra* note 69, at 394 (discussing that the aim of trademark law is "to prevent consumer confusion as to the origin of goods and to allow consumers to identify and acquire the goods that they desire").

trademark.’ ”⁷² In sum, under a trademark theory, courts grant the subscriber a priority of rights to have his telephone number mnemonic protected from any subsequent users of a similar phone number mnemonic, where sufficient marketplace confusion exists.

For example, in *American Airlines v. 1-800-A-M-E-R-I-C-A-N Corp.*, a federal district court held that American Airlines could enjoin a travel reservation service from using 1-800-AMERICA (1-800-263-7422), which it had advertised as 1-800-AMERICAN under the category “airline companies” in a telephone directory.⁷³ Because the defendant intentionally used American Airlines’s marks in order to falsely promote itself as an affiliate of American Airlines and create customer confusion in the airline travel marketplace, the defendant had violated the federal trademark statute known as the Lanham Act.⁷⁴

Intellectual property law fails to distribute ownership rights adequately. First, a trademark approach measures the scope of a subscriber’s right in his phone number by focusing on the rights of third parties (i.e., potential infringers). Defining a third party’s right does not sufficiently protect the subscriber, since protecting a subscriber from a junior user’s registration of a similar phone number is practically meaningless when the phone company or government can appropriate the subscriber’s (senior user’s) phone number at will. Second, intellectual property issues will arise only when there are two parties each fighting over the use of one trademark (one similar mnemonic). The Red Arms scenario, for example, is an entirely different situation because there are two distinct telephone mnemonics but only one underlying number, and such a scenario would not implicate intellectual property law. Third, trademark infringement cannot be asserted unless actual consumer confusion is shown. In fact, there are many instances where courts are reluctant to find the requisite consumer confusion.⁷⁵ This reluctance is even greater when the disputing parties are in unrelated businesses.⁷⁶ In

72. *Holiday Inns, Inc. v. 800 Reservation, Inc.*, 86 F.3d 619, 623 (6th Cir. 1996) (quoting *Carson v. Here’s Johnny Portable Toilets, Inc.*, 698 F.2d 831, 834 (6th Cir. 1983)).

73. *Am. Airlines v. 1-800-A-M-E-R-I-C-A-N Corp.*, 622 F. Supp. 673, 686 (D. Ill. 1985).

74. *Id.*

75. See *Bell v. Kidan*, 836 F. Supp. 125, 127 (S.D.N.Y. 1993) (finding that plaintiff’s CALL-LAW and defendant’s 1-800-LAW-CALL did not incite consumer confusion because “[n]o sophistication is required to understand those simple features of telephone dialing”).

76. If more than one party holds a legitimate interest in a single trademark, traditionally intellectual property law will not adequately resolve the dispute. For example, it took nearly four years to resolve the dispute over *delta.com*, in which Delta Airlines, Delta Financial, and DeltaComm Internet Services each competed for the domain name. Christopher Elliot, *No*

conclusion, intellectual property law often fails to provide adequate legal recourse to the holders of entity locator rights.

C. Denial of Protective Rights Produces Incongruous Law

Phone numbers are not property by doctrine but they are by expectation. Constantly evolving technology, new uses, cheaper costs, and changed consumer expectations have altered the landscape sufficiently enough that phone numbers have begun to serve as tangible forms of property.⁷⁷ Therefore, applying conventional judicial doctrines, which fail to recognize a property interest in the underlying number, no longer makes sense as old laws simply have not adapted to new technology.

1. Congruency in the Law

The FCC, most courts, and state and federal legislatures have declined to grant subscribers property rights in their phone numbers. Implicitly then, a phone number is not substantial enough, or important enough, to warrant the constitutional protections given to “property.” Accordingly, a difficulty arises: How can there be instances when the government’s stake in such a negligible interest is substantial enough to necessitate its appropriation?

The law must be reasonably congruent in order to be fair.⁷⁸ The principle of congruence requires the same analysis when determining both the subscriber’s and the government’s stake in the interest being appropriated. In other words, if the subscriber’s interest is negligible; does not amount to “property,” and does not rise to the level to grant any sort of protections, then we should find that the government’s “need” for that number is not great enough to permit its taking without invoking Fifth Amendment protections of “public use” and “just compensation.”

In contrast, some authorities believe that the less important the property interest is to its owner, the lower the government’s burden to appropriate that interest.⁷⁹ But such logic is faulty: the mere fact that the government wants to appropriate the interest

Winner in Delta.com Deal, INSIDE INTERACTIVE TRAVEL, Sept. 5, 2000, <http://www.elliott.org/interactive/2000/delta.htm>.

77. See *infra* Part II.C.2.

78. See, e.g., Merrill, *supra* note 35, at 980 (stating that there should be “a very high level of congruence between those interests deemed constitutional property and those interests that people expect to be protected as property”).

79. See, e.g., FCC Order, *supra* note 4.

indicates that the interest is not negligible.⁸⁰ Furthermore, the purpose of the Fifth Amendment is to protect an owner's property investment when its appropriation is required for the public good. There is no prevailing calculus for assessing when justice and fairness require that the state reimburse a private individual for economic harms caused by public actions as opposed to when the costs should remain disproportionately levied on the private individual.⁸¹ And the argument for congruency does not attempt to find such an equation. Instead, congruency principles advise that in determining whether the government must comply with the Taking Clause's requirements, one should use a similar formula to assess the value the owner and the public derive from the intangible interest being taken. It is highly likely that the intangible property interest will not truly be negligible to the owner, and therefore, the owner should be accorded her Fifth Amendment protections.

Finally, the congruency analysis, which may be described as a balancing of the state's interest against the private interest, is associated with the issue of "taking" authority, not "just compensation."⁸² In other words, in determining congruency the relevant question is whether the government has the authority to take the property, not whether the state can deny compensation.⁸³ The issue of compensation involves an analysis of the state's police power and is outside the scope of this Note.⁸⁴

2. Emerging Property Interests and Traditional Legal Doctrines

The traditional contract-for-services theory of phone numbers is largely anachronistic in today's world. First, subscribers rarely receive phone numbers by random allocation anymore, and instead, commercial subscribers usually request a specific phone number with a meaningful mnemonic.⁸⁵ Because the numbers are distinct and significant to the subscriber, treating them as indistinguishable service contracts appears awkward. Second, modern telephone

80. By inference, if the interest is valuable to the government, it is, more likely than not, valuable to the owner.

81. See *Penn Cent. Transp. Co. v. New York*, 438 U.S. 104, 124 (1978).

82. See Frank I. Michelman, *Property, Utility, and Fairness: Comments on the Ethical Foundations of "Just Compensation" Law*, 80 HARV. L. REV. 1165, 1193-95 (1967).

83. See *id.*

84. *Id.* at 1166.

85. "[A] recognizable, memorable business number can 'triple or quadruple call volume.'" Dru Sefton, *The Price of Vanity Numbers Pays Off; Phone Digits That Spell Words Ring Up Profits*, NEW ORLEANS TIMES-PICAYUNE, Oct. 31, 2004, at 9. Today, potential subscribers request specific numbers from one of more than 300 responsible organizations known as "resporgs." *Id.*

numbers are portable. The FCC allows subscribers to switch telecom carriers and retain their phone numbers in order to keep the telecom industry competitive.⁸⁶ This right to retain arguably amounts to a personal property interest rather than a mere contractual right to use. Third, due to advancements in technology, a customer is not restricted to a local phone number. Voice over Internet Protocol (“VoIP”), allows a person in Texas, for example, to subscribe to a Boston area code, allowing friends from Boston to call for local rates. This expanded freedom of choice has resulted in some numbers becoming more valuable than others, and therefore, in order to allocate resources efficiently, property law, not contract law, seems preferential. Fourth, Electronic Numbering (“ENUM”) gives subscribers a single number that can be used to access any of their communications devices—home phone, work phone, cell phone, or email.⁸⁷ With ENUM, it is likely that each person will become associated with one number for life.⁸⁸ If so, giving a service provider an unrestricted right to alter the number might be fundamentally unfair. Finally, the recent enactment of “Do-not-call” legislation gives subscribers the choice not to be contacted.⁸⁹ The right not to be disturbed is analogous to a right to exclude and traditionally attaches to a higher form of property ownership than a mere right to use.⁹⁰

3. Natural Law

John Locke’s labor theory of property, grounded in natural law, states that an individual has “a property [right] in [his] own person” and in “the labor of [his] body.”⁹¹ Accordingly:

Whatsoever then he removes out of the State that Nature hath provided, and left it in, he hath mixed his *Labour* with, and joyned to it something that is his own, and thereby

86. 47 C.F.R. § 52.23 (2007); Provision of Access for 800 Service, Notice of Proposed Rulemaking, 102 F.C.C. 2d 1387, ¶ 3-5, at 1388-89 (Jan. 23, 1986).

87. Gerry Blackwell, *A Phone Number for Life*, WI-FI PLANET, July 6, 2005, <http://www.wifiplanet.com/voip/article.php/3517896>.

88. *See id.*

89. *In re* Rules and Regulations Implementing the Telephone Consumer Protection Act of 1991, 18 F.C.C.R. 14,014, ¶ 1, at 14,017 (June 26, 2003) (establishing a national do-not-call registry). In addition, many states have enacted “do-not-call” laws. *See, e.g.*, N.J. STAT. ANN. § 48:17-25 (West 2006); N.Y. GEN. BUS. LAW § 399-z (McKinney 2006); TENN. CODE ANN. § 65-4-405 (2006).

90. *See* Merrill, *supra* note 35, at 976 (describing a license as a “permission slip” that does not embrace “any right to exclude”). *But see* Pouy v. Mandia, 254 N.Y.S. 536, 536 (N.Y. App. Div. 1931) (finding that because the beneficial enjoyment of an easement appurtenant to land accrues not only to the owner of the land but to bona fide tenants and licensees of that owner, a licensee of the owner may enjoin interference with the easement).

91. Sudakshina Sen, *Fluency of the Flesh: Perils of an Expanding Right of Publicity*, 59 ALB. L. REV. 739, 739-40 (1995).

makes it his *Property*. It being removed from the common state Nature placed it in, it hath by this *labour* something annexed to it, that excludes the common right of other Men.⁹²

Application of Locke's labor theory to phone numbers urges that because a subscriber spends time, money, and energy in publicizing and promoting his phone number, he is entitled to the fruits of his labor—retaining the phone number for as long as he desires. Moreover, telephone companies who appropriate subscribers' publicized phone numbers without permission and "license" them to other subscribers are analogous to "free riders" [who] improperly reap what others have sown.⁹³ In sum, even if courts do not protect the value of the phone numbers themselves, it is only fair that they protect the value of the labor expended promoting the number.

4. Consumer Expectations

The lack of property protection for phone numbers contradicts subscriber expectations in several ways. First, subscribers expect to maintain the right to their phone number indefinitely, or at least have the option to.⁹⁴ Even though the subscriber might sign a one- or two-year contract, the marketplace promotes the ability of subscribers to renew their agreements indefinitely.⁹⁵ This expectation of longevity is critical in encouraging commercial development.⁹⁶

Second, because courts treat phone numbers as business assets⁹⁷ and routinely protect them in bankruptcy proceedings,⁹⁸ subscribers inherently expect that they will be able to transfer or assign those rights, a practice that most service agreements prohibit.⁹⁹

92. JOHN LOCKE, TWO TREATISES OF GOVERNMENT 306 (Peter Laslett ed., Cambridge Univ. Press 1967) (1698).

93. Sen, *supra* note 91, at 740 (citation omitted).

94. Warren E. Agin, *I'm a Domain Name. What am I? Making Sense of Kremen v. Cohen*, 14 J. BANKR. L. & PRAC. 73, 78 (2005) (describing the expectations of domain name registrants).

95. *Id.*

96. *Id.*

97. See, e.g., *In re Fontainebleau Hotel Corp.*, 508 F.2d 1056, 1059 (5th Cir. 1975) ("The telephone numbers are a valuable asset, just like the hotel's building or furniture."); *Clayton Home Equip. Co. v. Fla. Tel. Corp.*, 152 So. 2d 203, 204 (Fla. Dist. Ct. App. 1963) ("The telephone number assigned to and accepted by one who contracts for telephone services becomes a valuable business asset in the hands of the subscriber . . .").

98. *In re Fontainebleau*, 508 F.2d at 1059.

99. Seth Lubove, *Numbers Game*, FORBES, July 25, 2005, at 58 (quoting Mitchell Knishbacher of 800response as saying, "We should be able to go to people and say . . . 'your number has little value to you' . . . and we'll take the number to people who can use it" and quoting Scott Richards of Dial 800 as saying, "The FCC has to wake up and realize there's a significant economic benefit to having an 800 number for a business,' but no easy way of securing the numbers. . . .").

The fact that telephone numbers generally transfer in corporate mergers and takeovers¹⁰⁰ adds to this expectation. In addition, domain names, which are near-analogous entity locators, are freely alienable (so popular a concept that a cottage industry has emerged around selling domain names).¹⁰¹ Finally, as with longevity, phone numbers' transferability helps drive commercialization in the marketplace.

5. Dynamic Society

Changes in technology often promote changes in property law.¹⁰² For example, the common law of property once held that a title to land carried with it the rights of ownership *usque ad coelum*, ownership of the surface land as well as "the airspace above it and all the ground beneath it—from the center of the earth to the heavens."¹⁰³ As explained by University of Richmond Law School Dean Rod Smolla:

When airplanes came along, however, that old law had to yield, or air travel would have been impossible. It would not have been tenable to require that pilots secure permission before flying over the property of others, even though the law had for centuries treated intrusion on someone's airspace as a trespass.¹⁰⁴

Similarly, it makes little sense to ruin the expectations of telephone service subscribers who use their phone numbers differently today than subscribers did during Alexander Graham Bell's generation. By analogy to the airplanes, if the law uniformly destroys the expectations that subscribers have in their phone number, "then something is wrong with the law," not with the subscribers.¹⁰⁵ In short, our law must evolve alongside our dynamic and amorphous society.

100. *Cargo Partner AG v. Albatrans Inc.*, 207 F. Supp. 2d 86, 107 (S.D.N.Y. 2002) (determining that a corporate "purchaser acquired not just fixed assets, but also all intangible assets (such as good will, patents, customer lists, phone numbers and the seller's prior name)" (interpreting *Wensing v. Paris Indus.-N.Y.*, 558 N.Y.S.2d 54 (N.Y. App. Div. 1990))).

101. *See, e.g., Interactive Prods. Corp. v. a2z Mobile Office Solutions, Inc.*, 326 F.3d 687, 691 (6th Cir. 2003) ("Each website has a corresponding domain name, which is an identifier somewhat analogous to a telephone number or street address.").

102. Rod Smolla, *You Say Napster, I Say Grokster*, SLATE, Dec. 13, 2004, <http://www.slate.com/id/2110982>.

103. *Id.*

104. *Id.*

105. *Id.* Justice Jackson stated this idea eloquently: "It is not the function of our Government to keep the citizen from falling into error; it is the function of the citizen to keep the Government from falling into error." *Am. Comm'ns Ass'n, C.I.O. v. Douds*, 339 U.S. 382, 442-43 (1950) (Jackson, J., dissenting).

III. ATTEMPTS BY COURTS AND ACADEMICS TO GIVE PROPERTY PROTECTION TO INTANGIBLE RIGHTS

This Part discusses two theories of property rights distribution for phone numbers and other intangible interests. The first is an approach currently used by some courts to allocate ownership rights to telephone subscribers by balancing rigid contract law with more tolerant property doctrines. The second approach is an innovative academic theory, yet to be adopted by the judiciary, which defines an entirely new class of property for emerging interests.

A. Injecting Common Law of Property to Balance the Contractual Limitations

In order to meet consumer expectations, some courts have begun to recognize ownership rights in phone numbers. These courts have injected property law into their analyses as a way to balance the traditional contract-for-services approach to allocating rights. However, there is little consensus between jurisdictions in the property rights a subscriber has in his number. This Part attempts to define these differing degrees of ownership.

1. Property Law Doctrines Promote Efficient Use

Property law doctrines are advantageous resources for courts to use when allocating ownership rights. The principles of property law seek to ensure that valuable resources are used in their best, most efficient manner. This efficiency occurs for three primary reasons, as property law (1) recognizes a limited number of forms, (2) groups property rights together in a single holder, and (3) resists burdens on the property's use.¹⁰⁶

First, property law is standardized—it is based around the recognition of a limited number of forms and estates—which creates certainty and predictability.¹⁰⁷ Because property forms such as easements, leases, and fee simple estates are widely recognized, third parties have greater notice of the types of interests they can hold, and transaction costs are decreased.¹⁰⁸ By comparison, the existence of contractual limitations on property rights requires potential purchasers to conduct a search of what those limitations are, resulting

106. Joshua A.T. Fairfield, *Virtual Property*, 85 B.U. L. REV. 1047, 1071-72 (2005).

107. *Id.* at 1050-51.

108. *Id.* at 1051.

in higher transaction costs.¹⁰⁹ Second, property law seeks to “unify marketable title” in one person in order to give him “the full incentives to maximize the value, minimize the damage, and alienate the property when someone can put it to better use.”¹¹⁰ In addition, aggregating rights into a single property holder lowers both search and negotiation costs for potential purchasers.¹¹¹ Third, an inherent function of property law is to limit contractual burdens on property use.¹¹² Doctrines central to property law oppose “contracts that lock property into low-value uses, or that make it too difficult for other parties to make productive use of the property.”¹¹³ For example, the policy underlying adverse possession is to maximize a property’s use by defeating dormant claims, even if protected by contract.¹¹⁴

2. Bifurcation of Rights: Contract for Service Separate from Property Interest in Phone Number

Some courts have begun to distinguish between the subscriber’s contractual rights to phone service and the subscriber’s possessory interest in his underlying phone number. Most cases that have bifurcated the phone number from the contract rights have done so in an improvised attempt to promote fairness, contending that because a phone number has been advertised and publicized, it is, on its own, a valuable asset and an independent property right in addition to the explicit rights derived from the service agreement.¹¹⁵ Effectively, courts have implemented, ad hoc, property law doctrines to balance the harshness of contract law and aid in defining ownership and transferability rules. As a result, courts have afforded subscribers varying degrees of property rights in their numbers. These ownership interests in phone numbers differ enormously by jurisdiction.¹¹⁶ This subsection attempts to analogize the property rights afforded in these

109. *Id.* at 1090.

110. *Id.* at 1071.

111. *See id.* at 1090.

112. *Id.* at 1071-72.

113. *Id.* at 1071.

114. *See* RALPH E. BOYER ET AL., *THE LAW OF PROPERTY: AN INTRODUCTORY SURVEY* 49 (4th ed. 1991).

115. *Clayton Home Equip. Co. v. Fla. Tel. Corp.*, 152 So. 2d 203, 204 (Fla. Dist. Ct. App. 1963) (finding that where a subscriber relies on service agreement and advertised his telephone number, the number “becomes a valuable business asset in the hands of the subscriber”).

116. *See, e.g., Slenderella Sys. of Berkeley, Inc. v. Pac. Tel. & Tel. Co.*, 286 F.2d 488, 490 (2d Cir. 1961) (finding that a subscriber has ownership rights in a telephone number equivalent to a real property license); *Clayton*, 152 So. 2d at 204 (finding that a subscriber has ownership rights in a telephone number equivalent to a real property easement).

opinions to a common law property estate in order to clarify the current state of the law.

a. Interest in Number as a License

Several courts have held that the interest in a phone number amounts to a mere license.¹¹⁷ A license is a non-possessory interest in property that permits the licensee a right to use the number for a specified time period.¹¹⁸ Because the interest does not even amount to possession of the property, a license is revocable at the will of the property owner.¹¹⁹

In *Slenderella Systems of Berkeley, Inc. v. Pacific Telephone & Telegraph Company*, the Second Circuit found that the bifurcated number amounted to “a license to use a specific telephone number” since a subscriber never holds “physical possession” of his number.¹²⁰ The court concluded that “telephone[] numbers were thus not the property of each [subscriber].”¹²¹ Similarly, in *Jahn v. 1-800-FLOWERS.com, Inc.*, the Seventh Circuit analogized a subscriber’s interest in a telephone number to a broadcast license.¹²² As such, Judge Easterbrook asserted that “subscribers do not own [the] telephone numbers assigned to them. . . [and] carriers could change numbers without liability to the subscribers.”¹²³

This theory, however, has several flaws. Under a pure licensing theory, government appropriation of a telephone number does not invoke Fifth Amendment protections of “public use” and “just compensation.” The appropriation of licensing rights does not necessitate eminent domain power because, technically, the government has not taken any “private property.”¹²⁴ Moreover, the subscriber received the phone number with the knowledge that it was revocable at any time, at the will of the phone company. Thus, a

117. *Slenderella*, 286 F.2d at 490 (“The license to use a specific telephone number does not amount to the possession required as a basis for summary jurisdiction.”); see also *Amber Auto., Inc. v. Ill. Bell Tel. Co.*, 305 N.E.2d 270, 271 (Ill. App. Ct. 1973).

118. JON W. BRUCE & JAMES W. ELY, JR., *THE LAW OF EASEMENTS AND LICENSES IN LAND* § 11:1 (2001).

119. *Id.*

120. Decided in the context of a bankruptcy proceeding, the court held that since the subscriber did not have possession of the number, the number could not be protected by the court. *Slenderella*, 286 F.2d at 490-91.

121. *Id.*

122. *Jahn v. 1-800-Flowers.com, Inc.*, 284 F.3d 807, 811 (7th Cir. 2002) (“If broadcast licenses may be sold even though they are not ‘property’ of the licensees, then telephone numbers could be sold . . . even though they, too, are not the subscribers’ property.”).

123. *Id.* at 810.

124. U.S. CONST. amend. V.

license-based approach is still subject to the congruency problem: The subscriber does not have enough need to acquire a property interest to invoke “just compensation,” but the government deems it important enough to effectively “take” it.¹²⁵

In addition, receiving a mere license opposes the Lockean ideal that one’s labor serves as a proxy for property rights, and that law should protect as property the value of one’s labor.¹²⁶ Under a licensing theory, even if a subscriber spends money advertising, promoting, and publicizing her phone number, the phone company or government can take away that number at will, with no residual liability to the subscriber.

b. Interest in Number as an Easement by Estoppel (Irrevocable License)

Ordinarily, a license is completely revocable. However, some jurisdictions may prevent revocation if the licensee expends money or labor in reliance on a reasonable expectation of continued use.¹²⁷ The seminal case on licenses gaining irrevocability, *Stoner v. Zucker*, held that a landowner could not revoke a license permitting a builder to enter land and construct a drainage ditch once the builder had expended money to complete the project.¹²⁸ According to the California Supreme Court, “where a licensee has . . . expended money, or its equivalent in labor, in the execution of a license, the license becomes irrevocable” and “the license becomes, in all essentials, an easement.”¹²⁹ The equitable principles at work closely parallel Locke’s labor theory of property: Property rights protect the value of the labor, if not the value of the tangible or intangible “thing” itself.¹³⁰

In *Clayton Home Equipment Co. v. Florida Telephone Corp.*,¹³¹ a Florida appellate court found that a subscriber obtained irrevocable rights in the license of his phone number similar to the rights acquired by licensee in *Stoner*, though the court never mentioned the terms “irrevocable” or “easement.” *Clayton* found that although the right to use a telephone number was an ordinary license, once the subscriber/licensee made expenditures on it, it could not be

125. *Id.*

126. *See supra* Part II.C.3.

127. This equitable doctrine is based on the principle that “it would be inequitable to permit the licensor to revoke the privilege when the licensee has changed position in reliance on the permitted use.” BRUCE & ELY, *supra* note 118, § 11:9.

128. *Stoner v. Zucker*, 83 P. 808, 810 (Cal. 1906).

129. *Id.*

130. *See supra* Part II.C.3.

131. *Clayton Home Equip. Co. v. Fla. Tel. Corp.*, 152 So. 2d 203 (Fla. Dist. Ct. App. 1963).

appropriated without "just cause."¹³² Because the plaintiff in *Clayton* had relied upon his telephone service agreement and had publicized his phone number on his business vehicle and letterhead, and had advertised the phone number on the radio and in the newspaper, the phone number became "a valuable business asset in the hands of the subscriber."¹³³ Therefore, when the phone company could not show just cause, the court refused to permit the phone company to revoke the subscriber's license.¹³⁴

Similarly, in *Dousson v. South Central Bell*,¹³⁵ a Louisiana appellate court found that a potential subscriber, who had relied on the telephone company's statement that he could obtain a specific telephone number, was entitled to monetary damages for "promotional materials already purchased" when the phone company denied him that phone number.¹³⁶ Because a license would have been revocable at will with no accompanying damages, the *Dousson* Court implicitly recognized a higher-order interest in the phone number than a mere license.¹³⁷

Easements by estoppel have not found widespread judicial acceptance. Many jurisdictions refuse to recognize the idea that a license, by definition a revocable right to use property, could ever become irrevocable.¹³⁸ These courts believe that a licensee who makes expenditures should be held to know the revocable character of a license and to act at her own risk.¹³⁹ In addition, public policy favoring the free use of land leads to judicial skepticism regarding the notion of an irrevocable license.¹⁴⁰

132. *Id.* at 204.

133. *Id.*

134. *Id.*

135. *Dousson v. S. Cent. Bell*, 429 So. 2d 466 (La. Ct. App. 1983).

136. *Id.* at 467, 469.

137. *But see* *Apollo Stereo Music Co. v. Kling*, 528 P.2d 976, 978 (Colo. Ct. App. 1974) ("While a license may be revoked at will, it does not necessarily follow that the original grantor of the license is absolved of any liability for the revocation. Where, as here, the contract creating the license contains a definite term and the licensee has provided a valuable consideration for the contract, if the grantor of the license violates the terms of the contract in connection with the revocation, a claim for damage may result therefrom."); *BRUCE & ELY*, *supra* note 118, § 11:6.

138. *See, e.g., Kitchen v. Kitchen*, 641 N.W.2d 245, 248-50 (Mich. 2002) (finding that a license created by an oral promise cannot become irrevocable because permitting such irrevocability would violate the Statute of Frauds); *Gulf Park Water Co. v. First Ocean Springs Dev. Co.*, 530 So. 2d 1325, 1335 (Miss. 1988) ("This Court does not recognize 'irrevocable licenses.'"); *Ski-View, Inc. v. State*, 492 N.Y.S.2d 866, 869 (N.Y. Ct. Cl. 1985) (noting that the concept of irrevocable licenses "has rarely been acknowledged in this State"); *Brown v. Eoff*, 530 P.2d 49, 50 (Or. 1975) ("Oregon is one of a minority of jurisdictions which recognize the possibility of an irrevocable license.").

139. *Larson v. Amundson*, 414 N.W.2d 413, 418-19 (Minn. Ct. App. 1987).

140. *BRUCE & ELY*, *supra* note 118, § 11:9.

Even in jurisdictions where irrevocable licenses are recognized, the irrevocable license interests nevertheless fail to meet consumer expectations in other regards. Irrevocable licenses are not perpetual, so a consumer would not have the right to retain the same number indefinitely.¹⁴¹ In addition, irrevocable licenses are non-alienable personal interests, so unlike other business assets, a subscriber will not be able to transfer her telephone number.¹⁴²

c. Interest in Number as a Lease

A lease, unlike a license, gives the lessee exclusive occupation of the property “for all purposes not prohibited by its terms” and a present possessory interest in the land.¹⁴³ Thus, the central and distinguishing characteristic between a lease and a license is that a license does not transfer possession whereas a lease does.¹⁴⁴

In determining whether an agreement is a license or a lease, courts rarely approach the issue formalistically and enforce the words exactly as written, but rather prefer to look to the qualitative nature of the privileges transferred.¹⁴⁵ For example, in *Miller v. City of New York*, the state’s highest court found that a document which expressly purported to be a license was actually a lease because it “contain[ed] many provisions typical of a lease and conferr[ed] rights well beyond those of a licensee or holder of a mere temporary privilege.”¹⁴⁶ Even though the licensing agreement contained provisions granting the licensor significant control (over prices, times of operation, and

141. *Bob’s Ready to Wear, Inc., v. Weaver*, 569 S.W.2d 715, 720 (Ky. Ct. App. 1978) (“The duration of a license may be limited even though the licensor is estopped to revoke the license.”).

142. *Shearer v. Hodnette*, 674 So. 2d 548, 551 (Ala. Civ. App. 1995) (“It is not an interest which runs with the land, nor can it be assigned, conveyed, or inherited.”).

143. 49 N.Y. JUR. 2D *Easements* § 216 (2006). A license is a right to use property for a specified purpose, and a licensee has occupation of the property only “so far as necessary to do the act and no further.” *Id.*

144. *See id.*

145. *See Wood v. Lucy, Lady Duff-Gordon*, 118 N.E. 214, 214 (N.Y. 1917) (“The law has outgrown its primitive stage of formalism when the precise word was the solemn talisman, and every slip was fatal. It takes a broader view today. A promise may be lacking, and yet the whole writing may be ‘instinct with an obligation,’ imperfectly expressed.” (quoting *Moran v. Standard Oil Co. of N.Y.*, 105 N.E. 217, 221 (N.Y. 1914))); *see also Bagg v. Robinson*, 34 N.Y.S. 37, 40 (N.Y. Sup. Ct. 1895) (“But it seems to be now pretty firmly established that mere words will not govern, but the court will look at the nature of the right, rather than the name by which it is called. And while, in the present case, the language used in the lease granting the right to sell, in a strict sense, are words of license, yet the court is not bound by the technical meaning of the words, and will look at the end sought to be accomplished by the instrument . . .”).

146. *Miller v. City of New York*, 203 N.E.2d 478, 479-80 (N.Y. 1964) (finding that where taxpayers sued the city claiming the transfer of property by the Commissioner was a lease rather than a license as purported in the written agreement: “A document calling itself a ‘license’ is still a lease if it grants not merely a revocable right to be exercised over the grantor’s land without possessing any interest therein but the exclusive right to use and occupy that land.”).

employees of the licensed land), the Court of Appeals held that these "strict and detailed" provisions were "no more than [what] would reasonably be demanded by a careful owner against a lessee."¹⁴⁷ In addition, Chief Judge Desmond found that the express and seemingly broad language¹⁴⁸ giving the licensor revocation authority did not, in fact, amount to a "revocable-at-pleasure clause" required by a license.¹⁴⁹

Although not using explicit "lease" language, the Fifth Circuit has held that the right to use a telephone number constitutes a present possessory interest in that number, which can be analogized to the possession requirement of a leasehold estate.¹⁵⁰ In *Fountainbleau Hotel Corp. v. South Central Bell Telephone Co.*, the court needed to find possession of a phone number by the subscriber in order for the bankruptcy court to acquire summary jurisdiction.¹⁵¹ Judge Ainsworth reasoned that since "telephone numbers are a valuable asset," a debtor must be able to protect telephone numbers "just like the hotel's building[,] or furniture," or any other asset in order to effect the purpose of the bankruptcy proceeding.¹⁵² Rather than finding ownership of title, the court found that a possessory interest in a telephone number was sufficient to invoke summary jurisdiction in a bankruptcy proceeding.¹⁵³

The Fifth Circuit again in *Georgia Power Company v. Security Investment* implicitly found that phone number rights amounted to a lease from the phone company by distinguishing the right to use phone service from the possessory interest in an actual phone number.¹⁵⁴ The court found that "telephone numbers constitute a unique property interest, the value of which increases as the number becomes widely known through publication in guidebooks, posting on

147. *Id.* at 480.

148. The termination provision read, in relevant part, that the Commissioner may "terminate the license when, in his sole judgment, he deems that such termination is necessary by the operation of law, or he deems that the licensed premises are required for a paramount park or other purpose." *Id.* Even though the Commissioner retained a right to revoke the 'license,' the court found though seemingly broad, the provision actually "limit[ed] his power of termination to a situation where it can reasonably be said that the city needs the land for a more important or pressing public need. This was not [a] revocable-at-pleasure clause . . ." *Id.*

149. *Id.*

150. *In re Fontainebleau Hotel Corp.*, 508 F.2d 1056 (5th Cir. 1975); *In re Sec. Inv. Props., Inc.*, 559 F.2d 1321 (5th Cir. 1977).

151. *In re Fontainebleau*, 508 F.2d at 1056.

152. *Id.* at 1059 ("The purpose of summary jurisdiction is to give the bankruptcy court a quick means of preserving the wherewithal for maintaining the debtor's business.")

153. *Id.* at 1058 ("For the bankruptcy court to have summary jurisdiction, the debtor or his trustee must have possession, constructive or actual, of the property in question.")

154. *In re Sec. Inv. Props.*, 559 F.2d 1321.

billboards, and imprinting on publicity items.”¹⁵⁵ More importantly, the circuit court declared that “[t]he property interest in such numbers differs from subscriber’s rights to the telephone utility’s service,”¹⁵⁶ because the phone number is “bound[ed]” and could be “possessed” in a way that an unbounded right to service could not be.¹⁵⁷ Therefore, a phone number was a definite and bounded right that was capable of possession, while a right to service was too nebulous to be actually possessed.¹⁵⁸

Because adjudication of leases primarily involves interpretation of terms within a lease agreement, analogizing the property rights in phone numbers to a lease with the phone company will retain many of the disadvantages of the traditional contract-for-services doctrine discussed in Part 11.B.2. In addition, a lease approach will introduce problematic landlord-tenant common law rules. One such rule includes tenancy at sufferance, under which a landlord may require that a holdover tenant (who has retained possession of the property after the lease has expired) continue to pay rent for another full year.¹⁵⁹ Another circumstance unique to leaseholds is that a subscriber’s transferability rights would be limited to assignment or sublease, for each of which the subscriber would ultimately remain liable for rent/service charges.¹⁶⁰

However, one added benefit of a lease analysis over conventional contract-for-services rights is that not only breach of the contract but also breach of conveyance¹⁶¹ will permit the subscriber/tenant to stop paying services fees/rent.¹⁶² Therefore, any time the subscriber loses possession of his phone number—that is, if the phone company were to change his phone number—he can cancel service without liability (whereas he would remain liable for services under the common law of contracts).

155. *Id.* at 1324.

156. *Id.*

157. “[A] utility company’s tariffs do not establish conclusively the bounds of a debtor’s property interest.” *Id.* at 1325.

158. *Id.*

159. Some state statutes limit residential holdover tenancies to month-to-month. It is unclear whether a phone number leasehold would adopt the shorter residential statutory scheme. *See, e.g.*, NEV. REV. STAT. ANN. § 188A.470 (2005); N.J. STAT. ANN. § 46:8-10 (West 2003); WIS. STAT. ANN. § 704.25 (West 2005).

160. If the tenant subleases the property, the tenant remains liable to the landlord for rent as if the property was not subleased. If the property is assigned, the tenant remains ultimately liable for rent as a surety, but the assignee is liable in the first order, under privity of estate.

161. A breach of conveyance is a loss of possession, an actual eviction from the property.

162. *See* Christopher Vaeth, Annotation, *Landlord’s Duty, on Tenant’s Failure to Occupy, or Abandonment of, Premises, to Mitigate Damages by Accepting or Procuring Another Tenant*, 75 A.L.R. 5TH 1 (2006).

d. Interest in Number as Intangible Fee Simple Ownership

A final application of property law to ownership rights in a telephone number would result in a subscriber's full ownership, a fee simple interest.¹⁶³ A fee simple absolute is the largest ownership interest one can have at common law; it is "the greatest possible aggregate of rights, privileges, powers and immunities" in property, and "[i]t is of potentially infinite duration."¹⁶⁴

No court yet has determined that a subscriber has fee simple ownership in her phone number. However, in *Kremen v. Cohen*, the Ninth Circuit held that the individual registrant owns the domain name, not the internet service provider, creating an interest analogous to a fee simple.¹⁶⁵ The court used a three-part test to determine whether the domain name amounted to a property interest: "First, there must be an interest capable of precise definition; second, it must be capable of exclusive possession or control; and third, the putative owner must have a legitimate claim to exclusivity."¹⁶⁶ Judge Kozinski found that "a domain name is a well-defined interest" because the registrant of the domain name owns a specific set of rights that decide exactly where those who type the name into their browser will end up.¹⁶⁷ Next, the circuit court determined that the registrant has exclusive ownership since once registered, no one but "the registrant alone" has the rights to the domain name.¹⁶⁸ Finally, a registrant has a legitimate claim to his rights because "[r]egistering a domain name is like staking a claim to a plot of land at the title office."¹⁶⁹ Registration informs others that the domain name belongs to the registrant and that they cannot now register it. The court concluded that because a registrant's interest in a domain name satisfied all of the elements, a registrant has "an intangible right in his domain name."¹⁷⁰

Although the opinion provides "no guidance regarding the nature of the property right,"¹⁷¹ it is justifiable to find fee simple ownership, rather than a mere possessory interest as in *Fountainbleu*.

163. A life estate, an interest in the phone number that lasts for the lifetime of the holder, seems illogical, and will not be discussed.

164. BOYER ET AL., *supra* note 114, at 82.

165. See *Kremen v. Cohen*, 337 F.3d 1024, 1030 (9th Cir. 2003).

166. *Id.*

167. *Id.*

168. *Id.*

169. *Id.*

170. *Id.*

171. See Agin, *supra* note 94, at 6 (2005) (describing the expectations of domain name registrants).

When determining whether the second element of the property test was satisfied, the court needed to find only whether “it was capable of exclusive possession or control.”¹⁷² However, Judge Kozinski found that “[o]wnership is exclusive in that the registrant alone makes that decision.”¹⁷³ In addition the court found that “domain names are valued, bought and sold, often for millions of dollars.”¹⁷⁴ Because the profits from sales would go to the registrant and not the internet service provider, it is a fair assessment that the *Kremen* court felt that registrants held ownership of their domain names, rather than some lesser right to possession.

A fundamental shortcoming of applying the fee simple interests to phone numbers is that it is antithetic to the FCC’s stance on ownership of phone numbers. The FCC fears that allowing individual ownership will result in a property-like grab for vanity numbers, and fee simple rights would give subscribers such an opportunity.¹⁷⁵ Second, the fee simple approach is potentially unnecessary. There is no evidence that subscribers crave fee simple absolute rights in their phone numbers, and many subscribers may simply be happier paying less and receiving fewer rights in return. Third, critics may argue that there is no judicial support for a fee simple interest even in a domain name,¹⁷⁶ and that this Note’s contention that *Kremen* recognized a fee simple estate is an unwarranted and incorrect interpretation.¹⁷⁷

3. Criticism of Contract and Property Common Law Balancing Approach: Lack of Uniformity

When courts have bifurcated phone numbers from the service rights in contractual service agreement, they have done so in an ad hoc manner to promote fairness, granting subscribers rights to their phone number in exchange for their reliance expenditures. As a result of improvised decisionmaking, property rights afforded to subscribers vary widely by jurisdiction, which has led to strikingly disparate law. Not only do courts grant dissimilar degrees of property interests, which vary from licenses and easements to intangible leases and fee simples, but courts have also, at times, treated identical property

172. *Kremen*, 337 F.3d at 1030.

173. *Id.* (emphasis added).

174. *Id.*

175. See Manheim & Solum, *supra* note 54, at 385.

176. After all, no other federal circuit has explicitly held that a registrant owns his domain name. Although most courts have not decided the issue, at least one court follows the phone number contract-for-service theory, concluding that registrants do not have individual ownership in their domain names. *Network Solutions, Inc. v. Umbro Int’l, Inc.*, 529 S.E.2d 80, 87 (Va. 2000).

177. This argument would proceed by finding that *Kremen* found possession, which is the minimum interest required to support the tort of conversion.

rights inconsistently. For example, though both the Second Circuit in *Slenderella* and Seventh Circuit in *Jahn* found that a phone number amounted to a license, each court treated the licenses differently. The Fifth Circuit held that a license to use a phone number was a transferable interest in *Jahn*, while the Second Circuit found that the subscriber's license in *Slenderella* amounted to non-alienable right.¹⁷⁸ In sum, although the introduction of property law may balance contractual limitations, lower transaction costs, and allocate resources more efficiently, without a single, exclusive standard for phone numbers, the result will continue to be what it has been: erratic and unpredictable law.¹⁷⁹

B. Recognizing a New Class of Virtual Property

Some scholars have urged for the legal recognition of a new class of “virtual property,”¹⁸⁰ consisting of contemporary and emerging property interests. The idea is that by treating these rights as a group instead of individually, we can consider common problems and expectations in order to create generalized and uniform governing law. No case law uses the term “virtual property”; as of now, it is an entirely academic theory.¹⁸¹ The literature available on virtual property is thin, and no prior analysis of the intersection of virtual property and the Takings Clause currently exists. This Part, therefore, will first explain the concept of virtual property and then will attempt to apply a theory of Takings property to the virtual property world.

1. Overview of Virtual Property

The virtual property approach entails grouping together the intangible interests of virtual worlds—chat rooms, web sites, phone numbers, screen names, email addresses, etc.—and developing a body of property law to allocate these intangible rights. Acknowledging these interests involves giving the “property” designation to a species of right that “legal academics have consistently rejected . . . as having

178. *Jahn v. 1-800-Flowers.com, Inc.*, 284 F.3d 807, 811 (7th Cir. 2002); *Slenderella Sys. of Berkeley, Inc. v. Pac. Tel. & Tel. Co.*, 286 F.2d 488, 490-91 (2d Cir. 1961).

179. Due to the desire for uniformity, it may be more practical for the issue to be addressed by statute.

180. See, e.g., David Nelmark, *Virtual Property: The Challenges of Regulating Intangible, Exclusionary Property Interests Such as Domain Names*, 3 NW. J. TECH. & INTELL. PROP. 1 (2004); Fairfield, *supra* note 106, at 1078.

181. Fairfield, *supra* note 106, at 1084.

no useful content.”¹⁸² The benefits are twofold. First, extending property law to virtual property will ensure the efficient use of these emerging resources.¹⁸³ Second, instead of ad hoc judicial decisions directed at one type of intangible property interest, there is an increased opportunity to develop uniform and consistent precedent, applicable to many types of emerging interests.¹⁸⁴

To constitute virtual property, the interest or expectancy must be intangible, exclusionary,¹⁸⁵ and obtained through registration.¹⁸⁶ Of primary significance, virtual property is distinct from, and should not be confused with, intellectual property. Whereas intellectual property rights include the ownership of the embodiment in every occurrence, virtual property rights include ownership of the particular article in one instance.¹⁸⁷ For example, intellectual property rights of a book include ownership of the copyrighted text, in every format in which it is published.¹⁸⁸ Owning one copy of the e-book would be analogous to the virtual property rights.¹⁸⁹ In a vanity phone number, like 1-800-FLOWERS, virtual property rights would be property rights of the underlying number, 1-800-356-9377. Intellectual property rights would be ownership of the 1-800-FLOWERS® trademark.

Generally, virtual property is easy to obtain.¹⁹⁰ The registration process may require filing an application and paying associated fees, which stands in stark contrast to registering intellectual property. In comparison, patent registration first requires developing an original idea that then must survive an exhaustive examination process.¹⁹¹ Nonetheless, virtual property is still very valuable. In 2004, the telephone number 1-800-GREAT-RATE was sold on eBay for more than \$100,000.¹⁹² Despite being easier to acquire than intellectual property, virtual property is arguably more costly to maintain, since phone numbers and domain names realize their value only once they

182. *Id.* at 1102.

183. *Id.* at 1050.

184. Nelmark, *supra* note 180, at 72-74.

185. *Id.* at 4 (“The first characteristic distinguishes this class of property from traditional (or real) property, while the second distinguishes it from intellectual property.”). In other words, unlike a patent, only one person at a time can use and possess virtual property.

186. *See id.* at 9.

187. Fairfield, *supra* note 106, at 1096.

188. *Id.*

189. The electronic file of the book would be virtual property. *See id.*

190. Nelmark, *supra* note 180, at 9.

191. *Id.*

192. Sefton, *supra* note 85.

are made known to the public.¹⁹³ In fact, it is commonly the promotion costs spent on virtual property that make it economically valuable.¹⁹⁴

Finally, it is worth noting that not all virtual property relates to emerging technology. Early examples of virtual property include social security numbers and actors' stage names,¹⁹⁵ each of which involves registered, intangible ownership rights belonging to only one individual.¹⁹⁶

2. Takings Clause Applied to Virtual Property

Everything that is recognized as virtual property will not meet the threshold property requirement of the Takings Clause, which protects only "private property."¹⁹⁷ This subsection attempts to find a methodology that distinguishes protectable virtual property from other interests or expectancies that do not warrant constitutional protection.¹⁹⁸ Recognizing that the Constitution itself does not create property,¹⁹⁹ Professor Thomas W. Merrill has posited a method to ascertain cognizable property under the Takings Clause that balances the framer's underlying concerns to protect individuals from the threats of excess and oppression²⁰⁰ with three pragmatic limiting principles emanated from Supreme Court precedent.²⁰¹ To determine which rights fall within the constitutional property definition of the Takings Clause, Professor Merrill asks whether the rights holder has "an irrevocable right . . . to exclude others from specific assets."²⁰² Stated differently, a holder's interest will receive protection from the Takings Clause so long as the rights (1) contain the right to exclude, (2) consist of discrete assets, and (3) are otherwise irrevocable.²⁰³ This

193. See Nelmark, *supra* note 180, at 3-4.

194. *Id.* at 10.

195. No two members of the Screen Actors Guild can use the same professional name, or one that "resembles so closely as to tend to be confused with the name of any other member." This rule brought the triple-named actress to prominence, as actors like Sarah Jessica Parker, Jennifer Love Hewitt, and Melissa Joan Hart began to use their middle names to comply with the SAG rules. SCREEN ACTORS GUILD MEMBERSHIP RULES AND REGULATIONS, R. 15, available at http://www.sag.org/Content/Public/sag_rules.pdf (last visited Jan. 17, 2007).

196. Nelmark, *supra* note 180, at 5-6.

197. U.S. CONST. amend. V.

198. See *supra* Part II.C (discussing contexts that merit constitutional protection, interests that have been relied upon, and interests that inherently carry a high expectation of ownership rights).

199. See *supra* Part II.A.1.

200. See *supra* Part III.B.2.

201. Merrill, *supra* note 35, at 969-81.

202. *Id.* at 969.

203. *Id.* at 969-79.

subsection will apply Professor Merrill's test and assume that virtual property interests will be identified as constitutionally protected property when these three criteria are satisfied.²⁰⁴

a. The Right to Exclude

The initial element required for an interest to be constitutionally cognizable property is that it must be exclusionary.²⁰⁵ The holder must maintain a right to exclude, which includes the right to sole possession and control, and the right to determine how the property will be used.²⁰⁶ In *College Savings Bank v. Florida Prepaid Postsecondary Expense Board*, the Supreme Court held that "[t]he hallmark of a protected property interest is the right to exclude others."²⁰⁷ Writing for a 5-4 majority, Justice Scalia held that an unadjudicated cause of action for false advertising was not "property" because false advertising protections do not grant any exclusionary rights.²⁰⁸ In addition to *College Savings*, other Takings cases have declared that the right of exclusion is " 'one of the most essential' rights of property, 'one of the most treasured' rights, or something 'universally held to be a fundamental element of the property right.' "²⁰⁹

Virtual property, by its very definition as an exclusionary right, satisfies the "right to exclude" criteria. For example, a domain name is an exclusionary interest because registration of a domain name prevents anyone else from registering and using the same name.²¹⁰ On the other hand, licensing a parcel of virtual property would amount only to a right to use, not a right to exclude, and would not be property under the Takings Clause.²¹¹ Even though a license may satisfy the discreteness requirement (discussed in the next subsection), the fact that it is not exclusive makes it too insubstantial to warrant Takings protection.

204. Applying Professor Merrill's Taking's Property test to the virtual property world envisioned by Professor Fairfield is the crux of what I call "the virtual property approach." As I mentioned in the introduction, this approach is purely theoretical and an amalgamation of concepts introduced by law professors.

205. Merrill, *supra* note 35, at 970-74.

206. *See id.*

207. *Coll. Sav. Bank v. Fla. Prepaid Postsecondary Educ. Expense Bd.*, 527 U.S. 666, 673 (1999).

208. *Id.*

209. Merrill, *supra* note 35, at 973.

210. *Kremen v. Cohen*, 337 F.3d 1024, 1030 (9th Cir. 2003).

211. Merrill, *supra* note 35, at 976.

b. Discrete Asset

The second criterion for a constitutional property interest to arise requires that the interest be discrete in the sense that it can be isolated from the melting pot of other intangible rights and have a line of protection drawn around it.²¹² In other words, the claimant must hold a "specific property interest" as opposed to a mere "incident of property."²¹³ The discreteness element serves to limit the property protected by the Takings Clause, and confines the clause "to redressing singling-out rather than larger claims of distributive justice."²¹⁴

It is not readily apparent whether a category of virtual property will qualify as a discrete asset. A discrete asset can generally be analogized to one of the familiar real property estates and be traded in the marketplace.²¹⁵ Thus, an easement, lease, and fee simple qualify as discrete assets.²¹⁶

An expectation or privilege is a mere "incident of property" and is beyond the definition of constitutional property. Furthermore, a "right to use" is only a privilege at common law, rather than a definite or discrete asset. In *Georgia Power*, for example, the Fifth Circuit found that the right to continued phone service is neither well-defined nor bounded as compared to a finite and discrete interest in a telephone number.²¹⁷ Thus, a subscriber's interest in receiving a service will not amount to property protected by the Takings Clause.²¹⁸ In short, each type of virtual property will likely have to be analyzed on a case-by-case basis.

c. Irrevocable Right

Third, Takings property is limited to rights holders who have some degree of expectation that they will retain their property.

212. *Id.* at 974.

213. *Id.* at 907.

214. *Id.* at 998.

215. *Id.* at 974.

216. In *Dolan v. City of Tigard*, for example, the Supreme Court found that the land the city required the plaintiff to dedicate in return for a building permit was essentially a "public easement" and thus a discrete asset deserving of Takings Clause protection. *Dolan v. City of Tigard*, 512 U.S. 374, 396 (1994).

217. "A utility company's tariffs do not establish conclusively the bounds of a debtor's property interest." *In re Sec. Inv. Props., Inc.*, 559 F.2d 1321, 1325 (5th Cir. 1977); see *supra* note 157 and accompanying text.

218. The *Georgia Power* court failed to reach the question of whether a phone number amounted to "private property" under the Takings Clause, as the issue in the case dealt with electric, not phone, services. *In re Sec. Inv. Props.*, 559 F.2d at 1325.

According to Professor Merrill, “[T]akings property must be irrevocable for a predetermined period of time, and there must be no understanding, explicit or implicit, that the legislature has reserved the right to terminate the interest before this period of time elapses.”²¹⁹ In order to satisfy the requirement, the right does not need to amount to a full ownership, but it cannot be the subject of “discretionary revocation.”²²⁰

Most types of virtual property will need to be analyzed individually to determine whether they amount to a revocable right. For example, a license, which at common law is revocable at the will of licensor, is not property under the Takings Clause and does not “support a constitutional claim for compensation.”²²¹

3. Criticisms of the Virtual Property Approach and Motivations for an Alternative Solution

The initial approach analyzed in Part III.A., which balances contractual rights with property law doctrines (the “Balancing Approach”), has led to alarmingly disparate ownership rights in phone numbers. Courts continue to struggle to interpret intangible rights originating from service agreements when common law requires that “the nature of the right, rather than the name by which it is called” controls.²²² Furthermore, when a “court is not bound by the technical meaning of the words,” few constraints exist, which predictably leads to inconsistent results.²²³

The second approach, discussed in Part III.B.2 (the “Virtual Property Approach”), an application of Takings Clause limitations to a new class of virtual property, has many advantages over Balancing Approach’s strict application of property law. Rather than an arduous and imprecise analysis of which property form the intangible right is analogous to in order to determine the property rights accorded, Professor Merrill’s test is a straightforward, formalistic approach that will likely prove easier to administer. Whereas the Balancing Approach required distinguishing between licenses, easements, leases and fee simples on a qualitative level,²²⁴ the Takings property test in

219. Merrill, *supra* note 35, at 978.

220. *Id.* at 979.

221. In *Dames & Moore v. Regan*, for instance, the Supreme Court found that the licenses, which permitted the attachment of Iranian assets to American legal claims, were revocable. *Dames & Moore v. Regan*, 453 U.S. 654, 674 (1981).

222. See *Bagg v. Robinson*, 34 N.Y.S. 37, 40 (N.Y. Sup. Ct. 1895) (“[T]he court will look at the nature of the right rather than the name by which it is called.”).

223. *Id.*

224. See *supra* Part III.A.2.

the Virtual Property Approach has three bright-line requirements. Furthermore, the Virtual Property approach maintains the benefits of property law realized in the Balancing Approach, since virtual property that satisfies the three-element test will be protected under property law doctrines like any other cognizable class of property. By allocating traditional property protections to virtual property, the holders will seek the best, most efficient use of the scarce resources.²²⁵ Finally, the virtual property approach is capable of evolving with new technology. Because the Virtual Property Approach protects the underlying principles of property (exclusivity, discreteness, and expectation) rather than specific property forms (as does the Balancing Approach), new and emerging interests will receive constitutional protection, so long as they satisfy the three requirements of cognizable property.²²⁶

Nevertheless, the Virtual Property Approach has lingering drawbacks. First, virtual property is an amalgamation of different and distinguishable property forms, and it remains unclear whether one universal theory can successfully apply to every constituent interest. For example, domain names and telephone numbers will implicate different issues due to their distinctive characteristics (every domain name has its own, distinct IP address whereas two different vanity names could correspond to the same underlying number).²²⁷ Second, opponents of the Virtual Property Approach may argue that defining a new class of property is a role for the legislature, not the judiciary.²²⁸ A common law doctrine creating property rights may appear unauthorized, and instead, we should expect those who want protection to lobby their representatives for laws they desire. Third, virtual property is subject to the criticism that the recognition of constitutional protection for a new class of interests, contributes to the "thingification" of property.²²⁹ This critique insists that the argument to recognize new property rights is entirely circular: We call it property so that a court will protect it. But, it is the fact that a court is

225. See *supra* note 106 and accompanying text.

226. See Nelmark, *supra* note 180, at 22 (stating that lawmakers should avoid "hasty development of sui generis laws which better fit the new property, but which often address a very specific act . . . without considering the broader implications of the law" such that "when a fair system of regulation finally develops, the technology involved is likely already outdated").

227. See Ira S. Nathenson, Comment, *Showdown at the Domain Name Corral: Property Rights and Personal Jurisdiction over Squatters, Poachers and Other Parasites*, 58 U. PITT. L. REV. 911, 919 n.29 (1997) ("Before the Internet became commercially popular, domains on it were most commonly identified by numeric IP addresses.").

228. Fairfield, *supra* note 106, at 1091.

229. *Id.* at 1093 (quoting Felix S. Cohen, *Transcendental Nonsense and the Functional Approach*, 35 COLUM. L. REV. 809, 820 (1935)).

protecting it that gives it value and makes it property.²³⁰ A final criticism of the Virtual Property Approach is that Professor Merrill's test fails to provide an adequate number of constraints, such that when applied unaltered to virtual property, it may include too many intangible interests. Certain emerging interests like message board postings or registered screen names, as well as interests that have yet to evolve, might conform to Merrill's three requirements when, in fact, they do not merit Takings Clause protection.²³¹

IV. PROPOSED SOLUTION: DOCTRINAL AND PRAGMATIC LIMITS WITH BARRIERS TO ENTRY

A Takings Clause approach is needed that gives due attention to ownership rights in emerging interests. A new test for Takings property should contemplate consumer expectations in emerging property forms, principles of congruency, general fairness and Lockean's labor theory of property, the Constitutional protections granted from the state, and the FCC's administrative rationales. This Part proposes a solution that has taken each of the preceding factors into consideration.

A. Three-Factor Test and Increased Barriers to Entry

The three-step *Kremen* test for finding a property interest in a domain name and Professor Merrill's three characteristics defining Takings property are remarkably similar. Both tests are premised around three corresponding factors: (1) the interest's exclusivity,²³² (2) the interest's discreteness and definability,²³³ and (3) the expectation the interest creates in its holder.²³⁴ The following proposed solution aggregates the two approaches in a way that combines *Kremen's*

230. *Fairfield*, *supra* note 106, at 1094.

231. *See supra* note 17 and accompanying text.

232. Judge Kozinski articulates this element when he states that the interest " 'must be capable of exclusive possession or control.' " *Kremen v. Cohen*, 337 F.3d 1024, 1030 (9th Cir. 2003) (quoting *G.S. Rasmussen & Assocs., Inc. v. Kalitta Flying Serv., Inc.*, 958 F.2d 896, 903 (9th Cir. 1992)). Professor Merrill states this feature as "the right to exclude others." Merrill, *supra* note 35, at 911.

233. The Ninth Circuit requires that the interest is "capable of precise definition." *Kremen*, 337 F.3d at 1030 (quoting *G.S. Rasmussen*, 958 F.2d at 903). Professor Merrill asserts there must be a " 'specific property interest' [that] should be understood to mean [a] 'discrete asset.' " Merrill, *supra* note 35, at 974.

234. Judge Kozinski describes this component by stating that " 'the putative owner must have established a legitimate claim of exclusivity,' " and distinguishes a "claim" of exclusivity from being "capable" of exclusivity (as in the test's first element). *Kremen*, 337 F.3d at 1030 (quoting *G.S. Rasmussen*, 958 F.2d at 903). Professor Merrill insists the owner should hold "a certain degree of security of expectation." Merrill, *supra* note 35, at 978.

awareness of consumer expectations in intangible property²³⁵ with Professor Merrill's constraints on the term "private property,"²³⁶ while adhering to the protective ambition of the Takings Clause and Locke's ideals of fairness.²³⁷ Furthermore, this proposed solution incorporates additional limiting principles in order to accord with the FCC's concerns about propertizing intangible interests.

1. Assessing Which Emerging Interests Receive Constitutional Protection

This subsection will outline a method to assess when an intangible interest or expectancy warrants Takings Clause protection. Bringing together the components of the *Kremen* test and Professor Merrill's test reveals that intangible interests might receive Fifth Amendment protection when: (1) the bundle of rights is valuable and capable of being defined, separated, and protected; (2) the bundle is substantial enough to warrant protection, indicated by the fact that rights holder has exclusive possession or control; and (3) the claimant holds a degree of expectation that her rights will be protected due her reliance on the persistent nature of the rights. In brief, this subsection proposes that in order to receive protection under the Takings Clause, an intangible interest must (1) be a well-defined asset, that (2) contains exclusionary rights, and (3) carries an expectation of protection based on the enduring nature of the interest.

a. Well-Defined Asset

The first step consists of two requirements: the emerging interest must be both well-defined and an asset. The "well-defined" constraint limits property protection to those interests that are both recognizable and capable of being separated from the larger mix of intangible rights. The "asset" restriction requires both that the right have some value to the holder and that losing the right would amount to a loss. A right to use service would not meet the "well-defined" element, while a distinct phone number would. A randomly assigned phone number that had not been become known to the subscriber would not meet the valuable asset criteria, but a number that the subscriber has advertised is an asset with value.

There are several reasons why the "well-defined asset" requirement makes sense. Foremost, it serves to limit the number of

235. See *supra* Part III.A.2.d.

236. See *supra* Part III.B.2.

237. See *supra* Part II.A.

interests included. Intangible interests are abundant, not to mention easily and quickly created.²³⁸ Strict limits on what qualifies as cognizable property is necessary in part to allow for meaningful regulations under the Fifth Amendment (without bankrupting the government), as well as to prevent a manifestation of the FCC's fear of a property grab of intangible rights.²³⁹ In the absence of strict limits, subscribers might acquire phone numbers and domain names that are significant to the public interest, in hopes of receiving a larger "just compensation" sum than the cost of registration. Imposing strict limits on cognizable property would aid in deterring such an opportunity for arbitrage.

Second, the "asset" requirement targets and achieves the underlying objective of the property and contract law balancing test described in Part III.A, i.e., to protect consumer losses for expenditures already made, either in labor or monetarily. Moreover, a loss of value requirement serves as another means of limiting and distinguishing which intangible interests will receive the constitutional protection that the "property" designation provides.

b. Capable of Exclusion

Furthermore, the emerging interest must be "capable of exclusive possession or control" in order to constitute cognizable property.²⁴⁰ Stated differently, the holder alone must be capable of determining how the rights will be used. This requirement is undoubtedly justifiable, because exclusivity is the "hallmark" of constitutional property.²⁴¹ Moreover, both the Ninth Circuit in *Kremen* and Professor Merrill recognized the right to exclude as a mandatory, if not quintessential, feature of personal property.²⁴² Particularly in the intangible rights realm, the right to exclude serves as a functional limit on the interests that will be recognized as property. Many intangible interests will not merit constitutional protection entirely because they are not exclusive. However, in the intangible world, it may be harder to classify some interests as exclusive. For example, a chat room is exclusive in one sense because the creator can invite

238. See *supra* note 190 and accompanying text.

239. See *supra* notes 16, 54 and accompanying text.

240. *Kremen v. Cohen*, 337 F.3d 1024, 1030 (9th Cir. 2003) (quoting *G.S. Rasmussen & Assocs., Inc. v. Kalitta Flying Serv., Inc.*, 958 F.2d 896, 903 (9th Cir. 1992)).

241. *Coll. Sav. Bank v. Fla. Prepaid Postsecondary Educ. Expense Bd.*, 527 U.S. 666, 673 (1999) ("The hallmark of a protected property interest is the right to exclude others. That is 'one of the most essential sticks in the bundle of rights that are commonly characterized as property.'" (quoting *Kaiser Aetna v. U.S.*, 444 U.S. 164, 176 (1979))).

242. See *Kremen*, 337 F.3d at 1030; Merrill, *supra* note 35, at 911-12.

certain users and exclude others, but in another sense the area is a shared right, since the system administrator has the authority to monitor and access the room at all times.

c. Claim of Expectancy Based on Reliance and Endurance

The third limitation for an intangible right to acquire constitutional protection requires that the rights holder harbor some degree of expectation that she will retain the property. An expectation of protection will come from the fact that the interest is both persistent in nature and capable of being relied upon. Persistence means the interest is enduring; that it can be used over and over rather than just once.²⁴³ For example, “[w]hen an email account owner turns her laptop off, the information in that account does not cease to exist” but rather “[i]t persists on the server of her Internet Service Provider.”²⁴⁴ An interest that wanes, such as a message board posting (which can be deleted at the will of the message board administrator) will not contain sufficient expectancy of protection.²⁴⁵

In addition, in order to have a legitimate claim to the property, the interest must be capable of being relied on. For example, a domain name or telephone number, which may be advertised and publicized, carries the necessary expectation of protection. A message board posting, which is submitted only after agreeing to the house rules and is subject to deletion by the site administrator, is not capable of being relied upon and would not involve a legitimate claim of expectation deserving of constitutional property protection.

Like the first two elements of this solution, the expectancy element also serves to constrain the scope of property protection given to intangible rights. Superficially, the element is analogous to the claim of expectation required by Judge Kozinski in *Kremen* and Professor Merrill in his Takings analysis. Comprehensively, however, the expectancy component that this Note advances is more robust and thorough, and is designed specifically to extricate intangible interests unworthy of property status. This approach calls for a conscientious examination of the interest to ensure that it mimics real, tangible property of the type the Framers sought to protect. Persistence, which can typically be ignored in the tangible property realm, is of greater concern in a virtual world where transitory interests are much more prevalent. Thus, the solution offered combines a persistence component to the expectancy and reliance requirement.

243. Fairfield, *supra* note 106, at 1054.

244. *Id.*

245. Possibly, the message could receive protection from intellectual property law.

2. Policy Change: Barriers to Entry to Prevent Property Grab

Since this proposed solution has never been implemented, it remains unclear whether the solution's three constraints will adequately restrain consumers from actualizing the FCC's fear of a property rush for phone numbers. However, withholding property rights in intangible interests such as phone numbers, as the FCC rules currently provide, is not an appropriate remedy.²⁴⁶ One intrinsic problem is the FCC's distribution system. Currently, emerging property interests like domain names and phone numbers are easily obtainable and require only an application and a small fee.²⁴⁷ One fundamental answer to the FCC's fear of a property rush for registering phone numbers and other "entity locator" interests is, therefore, to increase the barriers to entry, essentially by creating deterrents. Generally, this could be accomplished on two fronts, (1) by making the interests either more costly or more difficult to obtain, and (2) doing away with the first-come, first-served assignment system.²⁴⁸ Although outside the scope of this Note, possible solutions include auctioning off "entity locator" rights or allocating the rights by lottery (where the revenue from auction fees or ticket sales could fund the administrative costs).²⁴⁹ The refusal of property protection, however, is an unfair and unjust "solution," that denies subscribers their constitutional right to "private property."

B. Solution Rectifies the Shortcomings of the Current Approaches

As Part III of this Note explained, the primary flaw in the current law regarding intangible rights is the failure to balance fears of granting too much property recognition with consumer expectations of ownership-type protection while maintaining uniformity in the law. The proposed solution seeks to ameliorate this deficiency by providing subscribers with constitutional protection of their emerging, intangible interests without giving incentives to land-grab for intangible property. This subsection explains how each part of this test avoids the problems inherent in the current approaches.

To begin, the solution advanced here formally recognizes that some forms of intangible interests need constitutional protection. Identifying these expectancies as Takings Clause property solves the congruency dispute explained in Part II.C.1, since the "property" that

246. See *supra* Part II.B.1.

247. See *supra* note 190.

248. See Nelmark, *supra* note 180, at 14 ("ICANN could . . . award the domain to the entity with the strongest interests, it could auction it off, or it could have a random lottery.").

249. *Id.*

can be taken by the government and the "property" that receives the government's protections are identical. Second, by granting subscribers' "property" protection of phone numbers and similar intangible interests, this approach will be more likely to meet consumers' expectations.²⁵⁰ The expectancy aspect of this test is consistent with the Lockean property theory that one's labor is valuable and deserves protection.²⁵¹ In addition, by recognizing property rights, parties will become less dependent on their service agreements, which will lead to lower transaction costs that otherwise amount to pure waste.²⁵² Third, because this solution deals with generalized concepts that could belong to many different types of intangible property rights, the solution has the ability to adapt along side of evolving technologies.²⁵³ Finally, the test recommends a policy change that would increase the barriers to entry into the market for phone numbers, domain names, and other property interests subject to a property grab, and do away with first-come, first-served assignment schemes. If it is more costly or difficult to obtain these rights, squatters will have less impetus to hoard them.²⁵⁴ Furthermore, taking away the first-come, first-served system will eliminate the race-to-register incentive for new phone numbers and domain names.²⁵⁵

C. Sample Analysis: Red Arms

How does this analysis fare in a real world example? The solution proposed here can be applied to the Red Arms scenario in order to predict the government's authority to transfer a private party's phone number. In a suit between Red Arms and the FCC, a court would begin by determining whether the phone number, 1-800-RED-ARMS, is a well-defined asset. A phone number is nothing more than a bundle of rights a subscriber receives along with her phone service, the real value deriving from the fact that the rights provide

250. See *supra* Part II.C.4 (discussing the law's complications with customer expectations).

251. See *supra* Part II.C.3 (discussing Locke's labor theory of property).

252. Fairfield, *supra* note 106, at 1090 ("Transaction costs (or, if the deal does not go through, deadweight loss) are pure social waste.").

253. See *supra* Part II.C.2 (discussing emerging property interests that no longer fit neatly into the conventional law).

254. See *supra* note 52 and accompanying text (discussing the FCC's fear of subscribers hoarding and brokering telephone numbers).

255. *Second Report and Order*, *supra* note 52, ¶ 22.

information on how to locate the subscriber.²⁵⁶ Similar to the domain name in *Kremen*, a phone number is a definite interest that performs a specific function (i.e., directs callers to certain places). In addition, unlike phone service, which is indefinite, amorphous, and without clear borders, a phone number is “bound[ed]”²⁵⁷ and contains definite confines. As to the value requirement, the Fifth Circuit in *Fountainbleu* held that a phone number is a “valuable asset.”²⁵⁸ In short, the number 1-800-RED-ARMS satisfies the well-defined asset part of the analysis.

A phone number also complies with the second element of the suggested solution, that the interest be exclusive. Analogous to the domain name at issue in *Kremen*, registering a phone number “is like staking a claim to a plot of land at the title office” because doing so “informs others that the . . . [number] is the registrant’s and no one else’s.”²⁵⁹ In fact, it was because the entrepreneur had the right to exclude the Red Cross from using 1-800-733-2767 that the FCC stepped in and transferred the number. Therefore, a phone number accommodates the exclusivity element.

Red Arms’s phone number also accords with the last constraint: that the interest contain a right of expectancy. Because a phone number cannot be deleted or erased in any meaningful way and does not diminish with time, it can be considered a lasting or persistent interest. Moreover, a phone number is capable of being relied upon through advertising and publicizing, such that a subscriber expects to have a legitimate claim to use it indefinitely. This idea was recognized explicitly by a Florida appellate court in *Clayton*.²⁶⁰ Therefore, 1-800-RED-ARMS conforms to the claim of expectancy requirement. Because the three elements of the test are satisfied, Red Arms’s phone number amounts to a cognizable form of intangible property that should be protected by the Constitution under the Fifth Amendment. In closing, under the offered solution, the government may transfer Red Arms’s telephone number only after

256. Phone numbers, street addresses, email addresses, domain names, and screen names are similar in this context; all can be classified as “entity locators.” See Smith, *supra* note 15, at 1191.

257. “A utility company’s tariffs do not establish conclusively the bounds of a debtor’s property interest.” *In re Sec. Inv. Props., Inc.*, 559 F.2d 1321, 1325 (5th Cir. 1977); see *id.* (discussing bounded interest in a phone number).

258. *In re Fontainebleau Hotel Corp.*, 508 F.2d 1056, 1059 (5th Cir. 1975).

259. *Kremen v. Cohen*, 337 F.3d 1024, 1030 (9th Cir. 2003).

260. *Clayton Home Equip. Co. v. Fla. Tel. Corp.*, 152 So. 2d 203, 204 (Fla. Dist. Ct. App. 1963); see *supra* Part III.A.2.b.

complying with the Takings Clause requirements of “public use” and “just compensation.”²⁶¹

V. CONCLUSION

When a new technology develops, a judicial struggle typically ensues between tendencies to apply established legal doctrine strictly and inclinations to expand the law to promote fairness. The ad hoc inconsistency by which courts have developed legal doctrines regarding intangible interests has left this area of the law alarmingly disparate. Not only has the state of flux resulted in legal uncertainty, but also a failure to protect certain emerging property interests adequately. The solution advanced in Part IV of this Note is a universal test that could be used to settle this area of the law.

An obvious critique of this solution is that it amounts to judicial activism in the absence of any statutory basis, and there are persuasive reasons to leave this solution to the legislature rather than the courts. However, courts have long been interpreting the Constitution and are exceedingly familiar with the principles underlying Takings Clause, perhaps more so than the legislative branch. Especially in the interim, when few laws exist to protect emerging, intangible interests, it is at least the partial responsibility of the judicial branch to resolve disputes and defend consumer expectations.

The proposed solution provides a way to readily administer emerging property interests and meet consumer expectations of ownership, without giving an incentive to property-grab intangible rights. Adequately protecting intangible property without rewarding opportunistic digi-squatters is profoundly difficult, but it is possible and necessary in order to adhere to the protections afforded in the Fifth Amendment. In fact, we have little choice.²⁶²

*Susan Eisenberg**

261. Although outside of the scope of this note, the issue of compensation raises additional questions. Shouldn't the American Red Cross, rather than the government, compensate for the phone number, since the Red Cross was the beneficiary? On the other hand, do we really want charity donations used to compensate an opportunistic company for a phone number rather than directly helping hurricane victims?

262. See *Home Bldg. & Loan Ass'n. v. Blaisdell*, 290 U.S. 398, 483 (1934) (Sutherland, J., dissenting) (“If the provisions of the Constitution be not upheld when they pinch as well as when they comfort, they may as well be abandoned.”).

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