Extraterritorial Jurisdiction: Can RICO Protect Human Rights? A Computer Analysis of a Semi-Determinate Legal Question

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I. USING COMPUTERS TO SIMULATE LEGAL DECISION MAKING

The ability of computers to perform complex tasks no longer remains a subject of serious debate. Thus, the question whether computers can model or simulate legal decision-making should be increasingly replaced by the questions: 1) how should computers assist in modelling legal decision-making and 2) what types of legal decisions are scientifically most interesting and useful to model. This article contends that semi-determinate "partially solved" legal problems represent the most interesting questions susceptible to computer analysis. A computer program accompanying this article demonstrates this proposition, by modeling an as yet undetermined question: whether the civil provisions of the Racketeering Influenced and Corrupt Organizations Act (RICO)² have extraterritorial affect.

As evidence of the general acceptance of computer decisionmaking ability, consider the development of tests for machine intelligence. This history demonstrates the capacity and limits of machine intelligence and which types of legal problems computer programs analyze most efficiently. Discussion of several of the more significant tests follows.

One of the first tests for artificial intelligence (A.I.), proposed by computer pioneer Alan Turing,³ stated that machine intelligence

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^{2. 18} U.S.C. §§ 1961-1968 (2000).

^{3.} *See* The Alan Turing Homepage, *at* http://www.turing.org.uk/turing (providing information on Alan Turing and his work).

becomes meaningful when a human no longer can distinguish the machine intelligence from human intelligence.⁴ This test, known as the Turing Test, appears increasingly quaint. Although the Turing Test yields practical results, demonstrating that A.I. has evolved to a level of sophistication where humans cannot distinguish between responses generated by humans and those generated by artifical intelligence, it does not demonstrate that a computer can "think" in a cognitive fashion.⁵ Critics of the Turing Test argue that it merely tests a computers ability to imitate human thought by applying a set of procedural rules.⁶

One of the most well known attempts at using A.I. to simulate human language in an electronic conversation was Joseph Weizenbaum's Eliza, a computer program designed to operate as a Rogerian therapist, which easily fooled many users into believing that they were talking online with a human psychotherapist. Chat programs, however, have evolved further since Eliza and demonstrate increasing sophistication in their attempts to mimic human personality, including animation and speech synthesis. These programs still revolve around the concept of mirroring the human's input, though they also now employ algorithms to learn about the human, and sometimes even use distributed computing, enabling

^{4.} See Dennis Patterson, Book Review Essay, *Fashionable Nonsense*, 81 TEX. L. REV. 841, 883 (2003) (discussing the well-known "Turing Test", which uses a computer program to model human cognitive thinking). The Turing Test, developed in 1950, asks humans to communicate through a computer terminal and attempt to differentiate between responses created by a computer and those created by a human being. *Id.* The Turing machine, a mental construct, can scan an infinite amount of atoms of symbolic code, read and write to and from that code, and remap the code to another symbol system. *See also* Paul Ming, *Virtual Turing Machine (VTM)* (1997), *at* http://www.nmia.com/~soki/turing (providing example of Turing Machine); A.M. Turing, *Computing Machinery and Intelligence*, 59 Mind 433 (1950), *available at* http://www.loebner.net/Prizef/TuringArticle.html.

^{5.} See Patterson, supra note 4, at 884.

^{6.} Peter Sanderson & Hilary Sommerland, Exploring the Limits to the Standardization of the Expert Knowledge of Lawyers: Quality and Legal Aid Reforms in the United Kingdom, 52 SYRACUSE L. REV. 987, 989 (2002) (discussing criticisim of the Turing Test).

^{7.} Joseph Weizenbaum, *ELIZA—A Computer Program for the Study of Natural Language Communication Between Man and Machine*, 9 COMM. OF THE ACM #1, 35-36 (1966), *available at* http://i5.nyu.edu/~mm64/x52.9265/january1966.html. A Rogerian therapist offers counseling in a passive manner, such as by asking leading or open ended questions. *See* The Turing Test: Alan Turing and the Imitation Game, *at* http://www.psych.utoronto.ca/~reingold/courses/ai/turing.html.

^{8.} See Internet-based Distributed Computing Projects (Kirk Pearson ed. 2003) at http://www.aspenleaf.com/distributed (2003) (discussing concept of distributed computing). Distributed computing involves dividing a large problem into several smaller problems and then distributing the small problems to several different

them to grow beyond a sort of Lacanian "mirror stage" and actually develop independent cognitive processes.

Once the simplicity of the Turing test became apparent, measures of A.I. shifted to more complex tasks and researchers developed better tests for A.I.. Another early test for A.I., which Turing worked on, asked whether the machine could play a competitive game of chess. Rather than seeking to solve a general problem, namely creating the ability to mimic humans, researchers now directed computer intelligence towards solving precise, specific problems. This test proved a far more successful inquiry. Contemporary chess programs can improve the humility of most of us by gently reminding us of our intellectual weaknesses. As humans establish tests for machine intelligence, they program machines to meet those tests, pushing back the horizon of the question whether a machine can "think". This cycle may even be inevitable: defining a problem is the first step to solving it so perhaps any definition of intelligence will (eventually) be programmable.

One test of A.I. not yet met, however, asks whether the computer

computers. *Id.* The computers generate solutions and then the solutions are combined to create a solution to the original problem. *Id.* The machines simulateneously process and compare their results with those of other computers in the distributed network. *Id.* For an example of a distributed artificial intelligence "chat" bot, see *ALICE at* http://www.alicebot.org.

"chat" bot, see ALICE at http://www.alicebot.org.

9. Jacques Lacan, The Mirror Stage as Formative of the Function of the I as Revealed in Psychoanalytic Theory, in ÉCRITS - A SELECTION (Tavistock Publications 1977), available at

www.stanford.edu/dept/HPST/critstudies/LacanMirrorStage.pdf.

10. See Bill Wall, Computer Chess History, at http://www.geocities.com/SiliconValley/Lab/7378/comphis.htm (providing brief history of use of computers to play chess). In this field, as elsewhere, Turing was one of the first to consider using the computer to solve chess problems. Andrew Hodges, The Alan Turing Internet Scrapbook, at http://www.turing.org.uk/turing/scrapbook/ai.html.

11. See Mark Baker, Artificial Intelligence- An Overview, at http://atschool.eduweb.co.uk/mbaker/ai.html (disucssing use of games, such as chess, as measure of artificial intelligence). Although chess champion Gary Kasparov prevailed in the Supercomputing '96 Chess Challenge against Deep Blue, IBM's parallel computing system, the computer demonstrated the ability of artificial intelligence to compete with the best chess players in the world. *Id.*

12. See Ralf Seliger, The Distributed Chess Project, at http://wind.prohosting.com/chessweb/HTML/project.html (offering interesting examples of use of distributed computing to solve chess problems).

13. See, e.g., Mark Ward, Past is the Future for Hollywood's Robots, BBC NEWS, September 10, 2000, In Depth: Artificial Intelligence, available at http://news.bbc.co.uk/1/hi/in_depth/sci_tech/2001/artificial_intelligence/1530702.st m (providing explanation of history of development of artificial intelligence standards).

possesses sentience, or self-awareness. To date, humans have not yet developed machines possessing self-awareness. But what is self-awareness and how can we recognize it? Though many difficult questions exist, the A.I. horizon will probably continue to recede. At least at present, however, machine sentience remains in the realm of science fiction. ¹⁴

Unlike today's computer programs, most humans not only can perform abstract reasoning, but also can develop new solutions to new problems. In this area, A.I. has plenty of room for growth. While researchers may eventually program a machine to do all this and more, we have not reached that level of sophistication today. Computers do not yet generally seek to solve new abstract problems. Rather, at present they most successfully work within preprogrammed boundaries to solve a given problem. Why is this? What creative spark do humans possess that still eludes the machine?

Analysis of A.I. requires an understanding that humans and machines process information very differently, causing them to possess different limits and abilities. While computers operate as extremely fast and accurate calculators with enormous data storage and retrieval capacity, the human brain displays comparatively less speed and accuracy in performing calculations. On the other hand the human brain performs other tasks that A.I. has yet to achieve, thus allowing humans to tie their shoes, groom themselves, and discuss abstract concepts like beauty.

The respective structures of the human brain and computer reflect the different functions they perform successfully. Like a computer, the human brain consists of different parts that specialize in specific tasks. While the brain appears to operate as a massive parallel processor capable of complex functions, computer microprocessors

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^{14.} See generally ARTHUR C. CLARKE, 2001: A SPACE ODYSSEY (New American Library 2000) (1968). Science fiction author Arthur C. Clarke, doubtlessly influenced by Turing's test, predicted that the machine would be able not only to emulate humans, but also to develop complex solutions to general problems and sentience by the turn of the last century. *Id.* Obviously, Clarke's prediction failed.

^{15.} See infra notes 18-19 and accompanying text.

^{16.} See, e.g., Michael E.R. Nicholls, *Psychophysical and Electrophysiological Support for a Left Hemisphere Temporal Processing Advantage*, 12 NEUROPSYCHIATRY, NEUROPSYCHOLOGY, AND BEHAVIORAL NEUROLOGY, 11, 12 (1999), *available at* http://opax.swin.edu.au/~333427/gapdetect.pdf.

^{17.} See, e.g., M.K. Holder, What does Handedness have to do with Brain Lateralization and Who Cares? (2001) at http://www.indiana.edu/~primate/brain.html.

^{18.} See http://www.hyperdictionary.com/dictionary/parallel+processing (defining parallel processing as "simultaneous processing by two or more

normally operate only sequentially and in isolation from each other. One individual processor will merely add, subtract, compare, and store or retrieve information in each sequentially coded instruction. Microprocessors perform these tasks, however, with perfect accuracy and much greater speed than a human brain. One of the sequentially operated accuracy and much greater speed than a human brain.

Recently, novel efforts have been made to use distributed computing to emulate the parallel processing of the human brain by employing dozens or even hundreds of computers to perform different parts of the same task.²² The power that distributed computing offers indicates that distributed computing will play a large role in the future of computer science, especially because of the internet.²³ Additionally, attempts to use biological elements to compose processors and memory, a process known as "biocomputing", continue to increase.²⁴ Although bio-computing remains

processing units"). The human brain works by devoting different processors or sectors of the brain to the solution of each of the separate parts of a problem. *Id. See also* Search390.com, *Definitions*, "parallel processing", (2003) *at* http://search390.techtarget.com/sDefinition/0,,sid10_gci212747,00.html (stating parallel processing consists of dividing program insutrctions among multiple processors).

- 19. See, e.g., THE NEW DICTIONARY OF CULTURAL LITERACY, HOUGHTON MIFFLIN COMPANY (E.D. Hirsch, Jr. et al. eds., 2002), http://www.bartleby.com/59/23/serialproces.html.
 - 20. See

http://www.hyperdictionary.com/search.aspx?Dict=&define=microprocessor&search.x=29&search.y=13 (defining the microprocessor). A microprocessor can perform calculations such as addition, subtraction, division, or multiplication, and store or retrieve results. *Id.* A microprocessor is a computer chip made of silicon, which functions as the brain of the computer. *Id.* The chip uses a "bus" to send and receive information. *Id.*

- 21. See Mark Baker, Artificial Intelligence- An Overview, at http://atschool.eduweb.co.uk/mbaker/ai.html (comparing the ability of human brain and artificial intelligence). While IBM's Deep Blue chess program processed 50 to 100 billion possible moves in a three minutes time frame, Gary Kasparov won the Supercomputing '96 Chess Challenge because the human brain can consider factors beyond the simple algorithm applied by the computer, including abstract reasoning, problem solving skills, experience and intuition. *Id.*
- 22. See, e.g., http://www.aspenleaf.com/distributed (providing introduction to distributed computing).
- 23. See supra note 8 and accompanying text. Distributed computing involves connecting several computers into a network and then using each computer to solve a part of a large problem. *Id.* For a technical examination of the software problems and possibilities of distributed computing, see SAMUEL C. KENDALL ET AL., A Note on Distributed Computing (1994) at http://research.sun.com/techrep/1994/abstract-29.html.
- 24. See Simon L. Garfinkel, Biological Computing, May/June TECHNOLOGY REVIEW 70, 77 (2000), available at http://www.simson.net/clips/2000.TR.BiologicalComputing.htm (discussing concept of biocomputing). Biocomputing involves the use of biological elements in computation. Id. Biological processes and computing processes are both electrical

in its infancy, ²⁵ in the near future neuroscience and computer science will increasingly track each other and probably eventually merge.²⁶ Currently, the performance of linear repetitive tasks provides the best way to understand and employ machine intelligence.

What does any of this have to do with law?

While researchers may eventually program a computer to do exactly what a lawyer does-interview clients, determine legal issues, research legal issues, develop legal arguments, and prepare relevant legal documents. Each of these tasks involve thinking abstractly to solve new problems outside a range of pre-programmed problems, requiring ability far beyond that of today's computers. Any one of these tasks alone, particularly the diagnostic of the client's legal problem and the determination of the legal solution, presents many very complex issues. On the other hand, some tasks, such as automating legal research and identifying solutions to given legal problems, fall well within the ability of existing "linear" programming and do not require any further breakthroughs in computer science. Thus, rather than focusing on the ultimately more interesting, but correspondingly more complicated, question of abstract diagnostics, this article focuses on the more mundane problem of doing what computers currently do well: solving well defined problems.

Working with a well-defined problem does not require working with an overly simplistic issue. For example, someone could write a simple program that would only determine whether your car's parking time limit has expired:

If (parkingMeter=0) then (fine:=\$100);

Such a program, though determinate, also offers limited use. Thus, this article examines a semi-defined legal problem: relevant precedents from similar cases do exist, but no controlling appellate decision has yet been rendered. The problem presented contains

processes. Id. Thus, in theory it is possible to use animal cells as elements of a computer. Id. See also David Steffen, An Introduction to Biocomputing (1996) at http://www.techfak.uni-bielefeld.de/bcd/Curric/Introd/ch0.html (discussing use of computer programs for biological sequence analysis);

^{25.} Pacific Symposia on Biocomputing (2003) at http://psb.stanford.edu/psb03/ (providing full text of all conference proceedings from 1996-2003). The Pacific Symposium on Biocomputing is a yearly multidisciplinary conference for the discussion of issues regarding computational biology. Id.

^{26.} See The Bioinformatics Center at Rensselaer and Wadsworth, at http://www.bioinfo.rpi.edu (discussing recent growth of bioinformatics field). Bioinformatics combines the disciplines of biology, computer science, and information technology. *Id*.

more variables than the parking meter problem. Such a problem will be sufficiently determinate that we can reach a lawyerly answer, but sufficiently uncertain that we won't wonder why we bothered.

II. EXTRATERRITORIAL LAWS: THE ALIEN TORT CLAIMS ACT (ATCA) AND THE TORTURE VICTIM PREVENTION (TVPA)

Extraterritorial laws, a necessary blemish on the symmetry of law when dealing with lawless states or regions where no effective government exists, do not necessarily signify empire.²⁷ Extraterritorial laws can create diplomatic problems, but the alternative may be lawless brutality. Most important is that all states have laws with extraterritorial effect.²⁸ In a world where states manifest themselves both as territory and citizenry, a clash of legal culture is just about inevitable – and so are extraterritorial laws.

The Alien Tort Claims Act (ATCA)²⁹ and Torture Victim Prevention Act (TVPA),³⁰ two United States laws with extraterritorial application intended to prevent and remedy attacks on human rights, provide private causes of action in tort, both to aliens and United States citizens, for violations of international law. Other examples of United States laws with extraterritorial effect are the Securities and Exchange Commission's laws against securities fraud³¹ and United

^{27.} See Grupo Protexa, S.A. v. All Am. Marine Slip, 856 F. Supp. 868, 881 (D.N.J. 1993) (stating international community demands high seas remain free and passable); Ali v. Ashcroft, 346 F.3d 873, 876 (9th Cir. 2003) (stating no government exists in Somalia); Bridas Corp. v. Unocal Corp., 16 S.W.3d 893, 903 (Tex. App. 2000) (stating Arghanistan follows non-secular Islamic law, lacking any governmental legislation of judicial precedent). Although a civil code was created in Afghanistan in 1960s, only the northern region of the country applies it. *Id.*

^{28.} See, e.g., http://www.legifrance.gouv.fr. The French Penal Code for example punishes the offences of Genocide (Article 211-1), and Other Crimes Against Humanity, (Articles 212-1 and 212-3). *Id.*; see also http://www.ulb.ac.be/droit/cdi/loi2003.html (providing example of extraterritorial law in Belgium concerning the suppression of grave violations of international human rights law).

^{29. 28} U.S.C. § 1350 (2000). ATCA provides that the federal district courts have original jurisdiction over any civil action brought by an alien as a result of a tort committed in violation of international laws or a United States treaty. *Id.* 30. Torture Victim Protection Act of 1991, Pub. L. No. 102-256, 106 Stat. 73

^{(1992).}

^{31.} See, e.g., Alfadda v. Fenn, 935 F.2d 475, 478 (2d Cir. 1991) (discussing extraterritorial effect of Securities Exchange Act). The Securities Exchange Act does not expressly state whether or not it possesses extraterritorial effect, requiring the courts to determine Congress's intent. *Id.* The courts have developed two tests for determining if a federal court has subject matter jurisdiction over a foreign plaintiff's securities fraud claim: the effects test and the conduct test. *Id.* The conduct test holds federal jurisdiction proper where the defendant's allegedly fraudulent conduct in the United States consists of more than preparation for fraud

States antitrust law.³² Extraterritorial laws, however, often generate problems. They are the stubborn knot in the smooth grain of the law, where one state's legal system insists on imposing itself on another's.

The ATCA, a United States law which essentially exercises United States jurisdiction over torts "in violation of the law of nations". imports international law into the domestic system.³³ Created as the Judiciary Act of 1789³⁴, ATCA provides the basis for ground breaking human rights litigation.³⁵ Although historically victims of violations of international law rarely availed themselves of the remedies available under the ATCA, the universal recognition of certain norms of international human rights has broadened the application and effect of ATCA.³⁶ As international customary and treaty law evolve, so also does the content of ATCA.³⁷

and the defendant's action or failure to act directly causes injury to the foreign plaintiff. *Id.* The effects test grants the federal courts jurisdiction where the fraudulent activity outside of the United States has a substantial effect within the United States. Alfadda, 935 F.2d at 478.

- 32. Section one of the Sherman Act prohibits contracts, combinations, and conspiracies designed to restrain interstate commerce. 15 U.S.C. § 1 (2000). The United States Supreme Court has identified three broad categories of conduct that Congress may constitutionally regulate under its Commerce Clause power: the use of the channels of interstate commerce, the instrumentalities of interstate commerce, or the persons or thighs in interstate commerce, and finally any conduct that substantially affects interstate commerce. See United States v. Lopez, 514 U.S. 549, 558-59 (1995) (clarifying the scope and extent of Congress's power under the Commerce Clause of the United States Constitution). In some cases, the Sherman Act can apply to conduct outside of the United States. See, e.g., Matsushita Elec. Indus. Co., Ltd. v. Zenith Radio Corp., 475 U.S. 574, n.6 (1986) (stating Sherman Act can apply to conduct outside United States, if conduct affects interstate commerce).
- 33. 28 U.S.C. § 1350 (2000). The ATCA states "[t]he district courts shall have original jurisdiction of any civil action by an alien for a tort only, committed in violation of the law of nations or a treaty of the United States". Id.
- 34. Filartiga v. Pene-Irala, 630 F.2d 876, 878 (2d. Cir 1980) (discussing origins and history of ATCA). The First Congress created the Judiciary Act of 1789, c. 20, § 9(b), 1 Stat. 73, 77 (1789), which provided that the federal district court will have original jurisdiction "over all causes where an alien sues for a tort only [committed] in violation of the law of nations". Id.
- 35. See Helen C. Lucas, Comment, The Adjudication of Violations of International Law Under the Alien Tort Claims Act: Allowing Alien Plaintiffs Their Day in Federal Court, 36 DEPAUL L. REV. 231, 233 (1987) (discussing cases brought under ATCA, alleging human rights violations). ATCA serves an crucial role in protecting international human rights because international laws that create individual rights generally fail to create an accompanying right of enforcement. Id.at 239.

36. *Id*.

37. Filartiga v. Pena-Irala, 630 F.2d 876, 887 (2d Cir. 1980) (holding jurisdiction exists under ATCA to bring cause of action against foreign defendant for torture). Neither the plaintiff nor defendant were United States citizens, yet the

III. THE RACKETEERING INFLUENCED AND CORRUPT ORGANIZATIONS ACT AND EXTRATERRITORIAL EFFECT

A. Introduction

ATCA, TVPA, antitrust, and securities laws clearly have extraterritorial effect. The question of whether RICO applies extraterritorially, which similarly creates a private cause of action, remains unresolved at the appellate level. The question thus merits analysis and also provides an appropriate problem for computer analysis by allowing us to consider an indeterminate factor, an as yet non-existent appellate decision, using deterministic computer science methods.

A certain similarity exists between RICO and the ATCA: both import foreign substantive law as the basis of a new independent federal claim. Similarly, RICO creates substantive offences at the federal level and provides both criminal penalties and civil remedies for a variety of prohibited conduct, including extortion and similar racketeering activities.³⁸ RICO "federalizes" state crimes by making a pattern of racketeering activity a separate independent federal crime if the racketeering activity affects interstate or international commerce.³⁹ This legislative economy by importing foreign laws (whether of foreign states or federated states) shows creativity. Both statutes have another unusual point in common: each creates a private law cause of action, essentially in tort, for activity that may also violate criminal laws.⁴⁰

Despite many similarities, the two statutes diverge on the scope of their remedies. 41 While ATCA does not contain or imply criminal prosecution, RICO provides both civil and criminal remedies.⁴² This fact raises eyebrows among continental civil lawyers, where a much clearer distinction is made between civil and criminal remedies.

court found United States jurisdiction under ATCA because torture represents a violation of the law of nations. Id. Filartiga, the first modern case to use ATCA to defend the internationally recognized human right of freedom from torture, has provided precedent for numerous cases since. See, e.g., Wiwa v. Royal Dutch Petroleum Co., 226 F.3d 88, 104 (2d Cir. 2000) citing Filartiga v. Pena-Irala, 630 F.2d 876, 887 & n.21 (2d. Cir. 1980) (stating since Filartiga decision, litigants increasingly apply ATCA for basis of jurisdiction)

38. 18 U.S.C. §§ 1961-1968 (2000).

39. 18 U.S.C. § 1962 (2000).

40. See 18 U.S.C. § 1964 (2000) (providing civil remedies for violation of 18

U.S.C.A. § 1962); See also 28 U.S.C. §1350 (2000) (providing private civil cause of action for violation of international laws).

^{41.} Compare 18 U.S.C. §1963 (2000), with 28 U.S.C. §1350 (2000).

^{42. 18} U.S.C. § 1965 (2000).

While both ATCA and RICO may seem unorthodox to a civilian lawyer, certain features of civil law, such as inquisitorial procedure with an active panel of judges, lay judges and advisory opinions, seem just as unusual to common law jurists. Though ATCA and RICO may seem unorthodox, they do not violate United States international obligations.

This paper and the accompanying computer program examine the open question of whether RICO has extraterritorial effect and whether a violation of the law of nations could constitute the basis of a RICO offence. Extraterritorial jurisdiction, often problematic because it represents to some degree interference with another sovereign state's internal affairs or with its citizens or subjects, remains a controversial issue.⁴³

While this paper proposes the use of RICO to supplement and fortify claims under ATCA or TVPA, it does not suggest that courts could or should import either foreign substantive law or international law as the basis of a substantive RICO offense. While a violation of the law of nations, for example the use of slave labor, could in theory constitute a legitimate basis for a RICO action, such a possibility seems even more remote than the simpler and more important task of determining whether RICO itself possesses extraterritorial application. Similarly, this article does not propose that RICO claims should originate in violations of foreign law. Again, while such a basis might be possible, perhaps even desirable, it would further complicate the already difficult task of applying RICO internationally. This article also does not argue that every violation of RICO represents a violation of the law of nations, as required for the basis of an ATCA claim. While some RICO claims, say, the use of slave labor, would indeed be the basis for an ATCA claim, other RICO claims are clearly not violations of international law. But just as antitrust and SEC anti-fraud laws apply overseas to protect the United States market from corruption to assure a fair, competitive, and efficient market, RICO, in certain limited cases, can have extraterritorial application and for the same reason.

RICO not only applies to individual actors, but also to

^{43.} See, e.g., Larry D. Newman, Comment, RICO and the Russian Mafia: Toward a New Universal Principle Under International Law, 9 IND. INT'L & COMP. L. REV. 225, 244 (1998) (discussing extraterritorial effect of RICO). The article states "[e]ven though courts agree that RICO is to be given very broad application, its use remains questionable in extraterritorial litigation for violations that reach beyond the borders of the United States or violations that are committed by foreign parties [due to comity and sovereignty]". Id.

corporations.⁴⁴ Tortious human rights abuse often occurs as a systematic pattern of intimidation, forced relocation, and at the extreme, murder designed to facilitate wealth extraction. While it may be unusual to think of a corporation, whether a third world partner, sub-contractor, or subsidiary as being covered by RICO the facts in Doe v. Unocal⁴⁵ or Wiwa v. Royal-Dutch Shell⁴⁶ resemble exactly that: violent corporate conduct used to intimidate, relocate, or even enslave persons in order to extract wealth from them and their lands.

In addition to covering both individual and corporate actors, Congress specifically crafted RICO to apply to both legitimate and illegitimate enterprises. ⁴⁷ RICO not only applies to criminal organizations, but also to legitimate corporations engaged in white-collar criminal activity. ⁴⁸ This especially useful feature of RICO allows courts to dismantle corrupt organizations, rather than merely prosecuting individuals involved in criminal activity under traditional statutes. ⁴⁹ As RICO clearly applies to a broad scope of actors, the issue worthy of analysis becomes whether RICO can possess

44. 18 U.S.C. § 1961 (2000) (providing definitions for interpretation of RICO). The statute defines enterprise to include "any individual, partnership, corporation, association, or other legal entity, and any union or group of individuals associated in fact although not a legal entity". *Id.*

45. See generally Doe v. Unocal, No. 00-56603, 00-57195, 00-57197, 00-56628, 2002 WL 31063976, at *1 (9th Cir. Sept. 18, 2002), Rehearing en banc granted, vacated by No. 00-56603, 00-56628, 2003 WL 359787 (9thCir. Feb. 14, 2003). Residents of Myanmar brought an action for human rights violations against the Myanmar government and an American Oil Company under ATCA and RICO for alleged human rights violations, including murder, rape and torture. *Id.*

46. Wiwa v. Royal-Dutch Shell, 226 F.3d 88, 92 (2d. Cir. 2000), *cert. denied*, 532 U.S. 941 (2001) (finding personal jurisdiction in New York proper over Anglo-Dutch multinational for alleged human rights violations in Nigeria). The defendant maintained an office and conducted stock market transactions in New York. *Id.* at 93. In *Wiwa*, like *Unocal*, a large petroleum company allegedly profited through human rights abuses and by aiding and abetting the commission of crimes by supplying arms and possibly training to Nigerian police and paramilitary forces. *Id.* at 91.

47. See United States v. Turkette, 452 U.S. 576, 578 (1981) (holding RICO applies to both legitimate and illegitimate enterprises). The Court interpreted the language of 18 U.S.C. § 1961(4) according to its plain meaning, finding that the statute applied to organized crime as well as to legitimate businesses. *Id.* at 580.

48. Larry D. Newman, *RICO* and the Russian Mafia: Toward a New Universal Principle Under International Law, 9 IND. INT'L & COMP. L. REV. 225, 241 (1998). In his article, Newman states "RICO was not only designed as a tool to be used against organized crime infiltrating legitimate business; RICO was also to be used as a weapon against white collar crime and other forms of enterprise criminality". *Id.*

49. *Id.* (stating that RICO provides prosecutors with ability to attack entire criminal enterprise instead of individual participants).

extraterritorial effect under United States law, and, if so, whether applying RICO extraterritorially complies with United States international obligations (which appears likely).

The Ninth Circuit addressed RICO's extraterritorial effect in Doe v. Unocal.⁵⁰ The court, however, subsequently vacated their decision and granted a rehearing en banc, thus failing to dispose of the RICO issue on the merits. Consequently, although courts have applied RICO overseas in antitrust and securities regulations cases, no appellate court has answered the question whether RICO's civil provisions may apply in cases of torts committed abroad.⁵¹ At least one federal district court has ruled that RICO has extraterritorial application, not only in cases of antitrust or securities fraud, but in the case of other federal laws as well. This article draws heavily on that district court's reasoning, as set forth in the subsequent case Wiwa v. Royal Dutch Petroleum Co.⁵²

B. Jurisdiction

1. Jurisdictional Limitations

As a general rule, Congress has the power to enact laws that apply outside United States' borders.⁵³ Because both securities law and antitrust law can and do have extraterritorial effect and because of the

^{50.} *Unocal*, 2002 WL 31063976, at *22 (9th Cir. 2002) (stating that for RICO to apply extraterritorially, claim must meet either "conduct" or "effect" test that courts have developed to determine jurisdiction in securities fraud cases). The court granted summary judgment in favor of the defendants on the RICO claim, holding that the plaintiff failed to meet either the conduct or effects test, necessary for jurisdiction. *Id.* at *24. Subsequently, the 9th Circuit vacated this decision and granted a rehearing en banc of the case. Doe v. Unocal, 2003 WL 359787 (2003).

^{51.} See Kristen Neller, Note, Extraterritorial Application of RICO: Protecting U.S. Markets In A Global Economy, 14 MICH. J. INT'L L. 357, 382 (1993) (arguing RICO can and should apply internationally). Congress' stated purpose in enacting RICO, to protect the United States' interest in interstate and foreign commerce, and the extremely broad language used in the statute, both suggest that the courts should interpret RICO to have extraterritorial effect. Id. at 362.

^{52.} Wiwa v. Royal Dutch Petroleum Co., No. 96 CIV. 8386 (KMW), 2002 WL 319887, at *20 (S.D.N.Y. Feb. 28, 2002) (holding jurisdiction over foreign corporation proper under RICO). Although RICO does not expressly state whether or not it has extraterritorial effect, the *Wiwa* court held that a corporation engaged in illegal conduct may not avoid liability under RICO simply because of its foreign location. *Id.* The *Wiwa* court relied on the Second Circuits decision in *Alfadda v. Fenn*, which reasoned that RICO should apply extraterritorially in appropriate circumstances based on the plain language of the statute and its legislative history. Alfadda v. Fenn, 935 F.2d 475, 479 (2d Cir. 1991).

^{53.} See United States v. Yousef, 327 F.3d 56, 86 (2003).

common teleology of both antitrust and securities laws, protection of the market from fraud, we can infer that other laws, such as RICO, may have extraterritorial effect in appropriate circumstances.⁵⁴ In interpreting statutes, courts presume that laws do not have an extraterritorial effect,⁵⁵ but that presumption can be overcome by a showing of contrary Congressional intent.⁵⁶ Further, if a statute admits of two possible readings, but one of those readings would be inconsistent with United States' obligations under international law, that reading will not be admitted as United States law.⁵⁷ Significantly, the RICO statute states explicitly "the provisions of this title shall be liberally construed to effectuate its remedial purposes."⁵⁸

In practical terms, in order to apply RICO extraterritorially the court must first find subject matter jurisdiction. Without a finding of jurisidiction, no substantive claim can exist. The fact that defendant incorporated or headquartered their corporation overseas does not, by the mere fact of its location, render the corporation immune to RICO prosecution. ⁵⁹ Some degree of domestic activity, however, must

^{54.} *See* Neller, *supra* note 50, at 357 (proposing analysis of extraterritorial application of RICO through examination of jurisprudence in other areas of law).

^{55.} See United States v. Yousef, 327 F.3d 56, 86 (2003) (discussing standards for overseas application of United States laws). Though courts presume that laws only have domestic effect, the intent of Congress may rebut that presumption. Id. Thus, where a statute is silent as to its extraterritorial effect, the court must determine "whether Congress would have intended that federal courts should be concerned with specific international controversies." Alfadda v. Fenn, 935 F.2d 475, 479 (2d Cir. 1991); *See also* Bersch v. Drexel Firestone, Inc., 519 F.2d 974, 985 (2d Cir. 1975) (stating courts must examine Congressional intent in deciding whether to apply Ú.S. law extraterritorially). In evaluating jurisdiction over predominately foreign transactions, the court should determine whether Congress intended to dedicate United States resources to the solution of the problem addressed by the law. Id.; Foley Bros. v. Filardo, 336 U.S. 281, 285 (1949) (stating Congressional legislation applies only within United States unless contrary intent appears); United States v. Cotten, 471 F.2d 744, 750 (9th Cir. 1973) (stating absent evidence contrary, courts must presume that Congress did not intend extraterritorial application); United States v. Vasquez-Velasco, 15 F.3d 833, 839 n.4 (9th Cir. 1994) (stating jurisdiction normally based on territorial boundaries).

^{56. &}quot;Where '[t]he locus of the conduct is not relevant to the end sought by the enactment of the statute... it is reasonable to infer Congressional intent to reach crimes committed abroad." Vasquez-Velasco, 15 F.3d at 839 *quoting Cotten*, 471 F.3d at 751.

^{57.} See The Charming Betsy, 6 U.S. 64, 118 (2 Cranch) (1804) (stating courts should not interpret United States laws to violate international law if other interpretations are possible).

^{58.} Organized Crime Control Act of 1970, Pub. L. No. 91-452, 84 Stat. 947, codified as amended at 18 U.S.C. § 1961) (2000).

^{59.} See Alfadda v. Fenn, 935 F.2d 475, 479 (2d Cir. 1991) (stating defendant's status as foreign enterprise does not make defendant immune to RICO). The court found subject matter jurisdiction on the RICO claims based upon predicate acts that occured primarily in the United States. *Id.* at 480.

occur in order to justify RICO jurisdiction over the foreign corporation. The exact extent of domestic activity required for subject matter jurisdiction under a RICO claim remains somewhat unclear. This degree could be determined, for example, by considering the totality of the circumstances in the case at bar or by considering the teleology of RICO or by looking at both.

2. Teleological Approach to Finding Extraterritorial Jurisdiction Under RICO

Regardless of the proper standard for extraterritorial application, courts should grant extraterritorial effect in order to effectuate the purposes of Congress in enacting RICO.62 Antitrust and securities fraud cases exhibit a common teleology: the protection of United States domestic markets from corrupt foreign influences provides the justification of the extraterritorial application of United States law. 63 The common teleology in both antitrust and securities fraud cases, the protection of United States' markets, justifies the conclusion that RICO will be found to have overseas apolication. 64 Racketeering corruption distorts market signals leading to uneconomic behavior, creating a highly persuasive market-based argument given the current legal and political climate. Therefore, in cases like Wiwa v. Royal-Dutch Shell, or Doe v. Unocal, RICO should apply extraterritorially because Congress would wish to dedicate limited judicial resources to the protection of the United States domestic market from corruption. 65 Thus, RICO can and should have extraterritorial

^{60.} See Wiwa v. Royal Dutch Petroleum Co., 2002 WL 319887, *21 (S.D.N.Y. 2002) (stating various tests exist for determining whether sufficient domestic activity exists to find subject matter jurisdiction).

^{61.} *See* North South Finance Corp. v. Al-Turki, 100 F.3d 1046, 1051 (2d. Cir. 1996) (stating extent of domestic activity required to justify RICO subject matter jurisdiction extraterritorially remains unclear).

^{62.} See Neller, supra note 50, at 361 (stating Congress intended for RICO to have broad effect). Courts have applied the civil provisions of RICO in areas of law likely unanticipated by Congress, such as allowing RICO to apply in divorce cases and landlord-tenant disputes. *Id.* Despite these alternative uses, Congress has not modified RICO to limit its scope, suggesting that Congress intends for RICO to have extremely broad application. *Id.*

^{63.} See, e.g., Madanes v. Madanes, 981 F. Supp. 241, 250 (S.D.N.Y. 1997) (discussing goals of securities and antitrust laws and proper standards for extraterritorial application).

^{64.} See Neller supra note 50, at 382 (stating goals of RICO statute requires extraterritorial application).

^{65.} E.g., Bersch v. Drexel Firestone, Inc., 519 F.2d 974, 985 (2d Cir. 1975), cert. denied, 423 U.S. 1018 (1975) (stating when delaing with predominately foreign transaction, court must determine if Congress intended for United States resources to apply to address problem). In Bersch, a U.S. citizen instituted a class

application for practical reasons of market economy.

While the court will probably find that RICO has extraterritorial effect, under exactly what circumstances extraterritoriality will apply remains unclear. 66 Unfortunately, those circumstances do not admit of precise definition. The circumstances required for a finding extraterritorial effect depend on the specific facts of individual cases, whether the exercise of jurisdiction will protect United States' markets, and whether Congress would want limited judicial resources to be devoted to litigating not only this type of problem, but the particular instance of this type of problem.⁶⁷ Factual complexity creates the practical impossibility of elucidating a precise general explanation of which cases will merit a hearing before a United States court.⁶⁸ The general teleology, however, does exist to guide courts: where applying RICO overseas will serve the goal of protecting United States' markets from racketeering corruption, we can expect that extraterritorial jurisdiction will be allowed.⁶⁹ Thus, a teleological analysis allows us to see how the appellate court will probably resolve this issue.

3. Possible Standards for Extraterritorial Jurisdiction Under RICO

When considering extraterritorial application of RICO in a criminal law context, previous judicial decisions relating to extraterritorial subject matter jurisdiction under United States securities and antitrust laws offer guidance to the courts. In securities and antitrust litigation, courts generally apply one of two tests in deciding the appropriateness of extraterritorial jurisdiction: the "effects test" and the "conduct test". These tests may not provide perfect models because they are "premised upon congressional intent in enacting the Securities Exchange Act and the antitrust statutes, not the intention of Congress concerning RICO."

action against a Canadian corporation, alleging a misleading I.P.O. prospectus. *Id.* at 981. The court considered what Congress would have intended and granted jurisdiction under the effects test. *Id.* at 993.

69. See Neller supra note 50, at 382.

^{66.} See, e.g., North South Finance Corp. v. Al-Turki, 100 F.3d 1046, 1051 (2d. Cir. 1996).

^{67.} See Bersch, 519 F.2d at 985.

^{68.} See id.

^{70.} *Id.*; *See also*, Doe v. Unocal, 110 F. Supp. 2d 1294, 1311 (2000) (stating courts evaluate extraterritorial application of RICO using precedent from securities and antitrust law).

^{71.} See North South Finance Corp., 100 F.3d at 1051 (comparing various tests used to evaluate extraterritorial jurisdiction).

^{72.} See North South Finance Corp., 100 F.3d at 1052. (2d. Cir. 1996) (discussing proper test for asserting jurisdiction extraterritorially).

The court must look at the specific substantive aspects of an individual law to determine whether to grant extraterritorial effect.⁷³

In securities law cases, courts generally apply the conduct test or the effects test, while in antirtust litigation courts generally disregard the conduct test and apply a modified version of the effects test. Under the securities law conduct test, United States law will apply extraterritorially whenever fraudulent conduct impacting United States commerce occurred in the United States, as long as that conduct surpasses mere preparartion for the fraud. ⁷⁵ The securities law based effects test states that extraterritorial application of United States' securities law is proper where predominately foreign conduct has a substantial effect in the United States.⁷⁶ In antitrust cases, courts place little emphasis on where the conduct occurred. Instead, they use a slightly different version of the effects test, interpreting the law to have extraterritorial effect "if the conduct is intended to and actually does have an effect on United States imports or exports which the state reprehends."⁷⁸

In North South Finance, the Second Circuit discussed both the effects test and the conduct test, but neglected to decide which, if either of the tests represents the proper standard for extraterritorial application of RICO.79 The court suggested, however, that the

^{73.} Id.

^{74.} See North South Finance Corp., 100 F.3d at 1051 (2d. Cir. 1996) (discussing various tests for extraterritorial application of U.S. securities and antitrust laws).

^{75.} North South Finance Corp., 100 F.3d at 1051 (stating conduct test asks whether fraudulent conduct beyond preparation occurred in the United States).

^{76.} *Id.* (discussing securities law based effectes test). The effects test, as applied to U.S. securities law, allows extraterritorial application of U.S. law where the foreign conduct has a substantial effect in the United States. Id.

^{77.} North South Finance Corp., 100 F.3d at 1051. Courts seldom apply the conduct test in antitrust cases, focusing on the effects of the conduct in the United States, rather than where the conduct occurred. Id.

^{78.} North South Finance Corp. v. Al-Turki, 100 F.3d 1046, 1051 (explaining application of effects test in antitrust cases). In the context of antitrust law the effects test allows for extraterritorial application of U.S. law if the conduct in question had and was intended to have an anticompetitive effect on United States commerce. Id.; see also United States v. Aluminum Co. of America, 148 F.2d 416, 443-44 (2d Cir. 1945) (creating effects test used in antitrust litigation). The Court stated that the Sherman Act does not apply to agreements intended to effect commerce unless an actual effect on commerce occurs. Id.

^{79.} See North South Finance Corp., 100 F.3d at 1051 (2d. Cir 1996). The district court dismissed the plaintiff's complaint for lack of subject matter jurisdiction after they failed to satisfy the requirements for the conduct test. Id. at 1052. The plaintiffs admit, however, that they could not alternatively satsify the criteria for jurisdiction under the effects test. *Id.* Therefore, the Second Circuit dismissed the case without deciding which test, if either, constituted the proper

antitrust-based effects test may be more appropriate for determining whether RICO has extraterritorial effect based on the fact that Clayton Act provided the model for the civil action provision of RICO. The fact that RICO and the antitrust laws both provide for treble damages, raising concerns about international comity and foreign enforcement, provides further support for the position that the antitrust-based effects test should govern the extraterritroail effect of RICO. Thus, though the issue of the extraterritorial application of RICO seems clearly defined, courts have not resolved it at the appellate level. 22

Assuming that the appellate court will ultimately base its decision on the teleological argument and allow extraterritorial application of RICO's civil claims, the question becomes whether the court will then use effects test, the conduct test, or both. As courts are parsimonious and prudential, the first decisions will probably not determine which test to use. Rather, the decision will probably state that under either test the jurisdiction would (or would not) exist, and that consequently the court need not decide which of the two tests applied. Eventually, however, the facts of a case will highlight the distinctions between the two tests, forcing the court to choose either the conducts test or the effects test or some combination of the two. Prudence, judicial economy, and parsimony suggest that the court will choose both tests, enabling the court to draw on precedent from both the antitrust cases and the stock-fraud cases.

Both tests serve the same teleological goals, so the court could legitimately use a combination of the conduct test and the effect test to allow increased judicial flexibility. The courts could combine the tests by granting RICO extraterritorial effect where the standards for

standard. Id.

^{80.} See North South Finance Corp., 110 F.3d at 1052. (2d. Cir. 1996) (dicussing appropriate test for extraterritorial application of RICO). The district court refused to grant extraterritorial jurisdiction to RICO based on failure to pass the conduct test. *Id.* The Second Circuit held that rather than applying the conduct test, the antitrust-based effects test may apply because Congress designed RICO after the Clayton Act. *Id. quoting* Agency Holding Corp. v. Malley-Duff & Assoc. Inc., 483 U.S. 143, 150 (1987).

^{81.} *Id.* (*comparing* 18 U.S.C. § 1964(c) and 15 U.S.C. § 15(a)); *see also* Doe v. Unocal, 110 F. Supp. 2d 1294, 1311 (2000) (applying securities-based effects test).

^{82.} See North South Finance Corp., 100 F.3d at 1051 (2d. Cir. 1996). "As these considerations show, specifying the test for the extraterritorial application of RICO is delicate work. That work has not been done, but we need not do it now." *Id.* The Second Circuit limited their decisions as much as possible, answering only that which they must, displaying judicial parsimony. *Id.*

^{83.} See North South Finance Corp., 100 F.3d at 1051 (2d. Cir. 1996) (neglecting to define proper standard for extraterritorial jurisdiction of RICO).

either of the two tests are met. Mirroring the conduct test, the court could base extraterritorial jurisdiction under RICO upon the occurrence of conduct beyond mere preparation for fraud within the United States. Additionally, actions intended to have a substantial affect on United States commerce and which actually causes such effect also could provide the basis for extraterritorial application of RICO.⁸⁴ The court could potentially even grant RICO extraterritorial effect in situations where the conduct caused substantial affects on United States commerce, regardless of intent. This alternative stretches the existing effects test, but courts may justify such a stretch because the RICO statute is much broader than antitrust laws. The court could create a broader rule if it chose, though it probably will not out of prudence.

The appellate court, of course, remains free to reach other results. 85 The best argument against applying RICO overseas is that RICO's civil remedies, particularly of treble damages, exists uniquely in the common law and appear very burdensome from the perspective of civil law because punitive damages are the exception in that legal system. 86 Thus, the appellate court could hold that RICO or its treble damages provisions do not apply as inconsistent with international law. That argument, however, ignores that treble damages apply extraterritorially in ordinary tort cases. Refusing to apply RICO or its treble remedies provision extraterritorially would reduce the efficacy of RICO's protection of United States markets from corruption. Further, United States courts have regularly applied the ATCA and TVPA over extraterritorial transactions with very few misgivings from United States allies. Finally, and perhaps most importantly, in a globalized economy the distinction between overseas and domestic conduct transactions can be unclear. For all these reasons, courts will most likely allow extraterritorial RICO civil claims.

As previously discussed, the appellate court has several possible

86. *Id.*

^{84.} See, e.g., North South Finance Corp. v. Al-Turki, 100 F.3d at 1051 quoting Consolidated Gold Fields PLC v. Minorco, S.A., 871 F.2d 252, 261-62 (2d Cir. 1989) (discussing securites law effects test as possible guidance for developing test for extraterritorial application of RICO). The antitrust based effect test also offers a possible template for extraterritorial applicaitno of RICO. Id. citing United States v. Aluminum Co. of America, 148 F.2d 416, 443-44 (2d Cir. 1945); see also Nat'l Bank of Canada v. Interbank Card Ass'n, 666 F.2d 6, 8 (2d Cir. 1981).

^{85.} See North South Finance, 100 F.3d at 1052. The Second Circuit discussed the possibility that either the conduct test or the effects test applies, yet declines to adopt either approach definitively. Id. The court refused to assume that Congressional intent in enacting RICO necessarily justifies adopting either approach. Id.

doctrinal methods by which it may develop case law and determine which choices to exercise. ⁸⁷ The court, however, will most likely allow RICO's civil provisions to apply extraterritorially in situations where either the conduct had substantial effects within the United States or where the conduct was intended to and actually did affect United States imports or exports. ⁸⁹ Even if one federal appellate court cuts off RICO overseas entirely, one of the other dozen remaining federal appellate courts will likely find that RICO can have extraterritorial application. Barring a serious split among the circuit courts or outrage among United States' allies (which is very unlikely: no one has protested much at all about the ATCA or TVPA), extraterritorial application of RICO likely will not warrant decision by the United States Supreme Court.

The remaining RICO issues, all relatively straightforward and uncontroverted, merit a terse examination in order to provide context for the legal issue of whether RICO has extraterritorial and also to demonstrate the solution of determinate legal problems using a computer program.

C. Standing

In order to have standing⁹⁰ to bring a private law RICO claim sounding in tort the plaintiff must demonstrate that he or she personally in fact suffered an injury.⁹¹ The legal requirements of standing under RICO, rather clearly established, warrant presentation only to contextualize the larger issues, whether RICO has extraterritorial application and applying a computer program, based on user input, to infer legal conclusions therefrom. Additionally, the exposition of standing will illustrate some interesting parallels to tort law.⁹²

^{87.} See supra text accompanying notes 73-77.

^{88.} See North South Finance, 100 F.3d at 1052, quoting Consolidated Gold Fields PLC v. Minorco, S.A., 871 F.2d 252, 261-62 (2d Cir. 1989) (discussing effects test as possible test for extraterritorial application of RICO).

^{89.} *Id.* (citing United States v. Aluminum Co. of America, 148 F.2d 416, 443-44 (2d Cir. 1945); *see also* Nat'l Bank of Canada v. Interbank Card Ass'n, 666 F.2d 6, 8 (2d Cir. 1981).

^{90.} BLACK'S LAW DICTIONARY 731 (5th ed. 1983) (defining standing to sue as requirement that plaintiff suffered injury or threat of injury by governmental action). This requirement serves the purpose of ensuring that the plaintiff represents the proper party to bring the cause of action. *Id.*

^{91. 18} U.S.C. § 1964(c) (2000) (providing cause of action for harm to person's business or property as result of RICO violation).

^{92.} Eric Engle, Smoke and Mirrors or Science? Teaching Law with Computers - A Reply to Cass Sunstein on Artificial Intelligence and Legal Science, 9 RICH J. L. & TECH. 2 (Winter 2002-2003), at http://law.richmond.edu/jolt/v9i2/Article6.html.

RICO provides a private civil cause of action where "any person [is] injured in his business or property by reason of a violation of § 1962." Case law elaborates on this statute, holding that in order to bring an action the plaintiff must show a substantive violation of § 1962; injury to business or property; and causation of the injury by the violation. 94

Both cause in fact (prong two) and proximate cause (prong three) must be shown as resulting from breach of legal duty (prong one), a formula remarkably similar to tort law. Breach of duty and factual causation, relatively fact dependent and straightforward concepts, do not warrant detailed abstract analysis. In concrete cases courts determine such issues with relative ease. It suffices to note that the plaintiff must show that the injury was factually caused by the same conduct that constituted the RICO violation. In other words, one or more RICO predicate acts must have caused the injury.

In comparison, proximate cause represents a much more difficult issue. To prove standing under RICO, the plaintiff must show that the violation of § 1962 proximately caused injury to his property or business. ¹⁰⁰ In tort law, courts usually determine proximate causation

^{93. 18} U.S.C. § 1964(c) (2000).

^{94.} See Hecht v. Commerce Clearing House, Inc., 897 F.2d 21, 23 (2d Cir. 1990) (discussing requirement of standing); De Falco v. Dirie, 923 F. Supp. 473, 476 (S.D.N.Y. 1996) (stating elements required for standing under RICO). The court found that the plaintiff satisfied all three required elements of proper standing required to bring a claim under RICO. *Id.*

^{95.} See Engle, supra note 92.

^{96.} See Carl v. City of Overland Park, Kan., 65 F.3d 866, 869 (10thCir. 1995) (stating absent duty, liability for damages does not exist). A duty can arise in a number of ways. *Id.* Traditionally, the test for factual causation asks whether the injury or damages would have occurred but for the actor's conduct. 57 AM. JUR.2d *Negligence* § 454 (2003). *See also, e.g.*, Excel Corp. v. Apodaca, 81 S.W.3d 817, 819 (2002) (stating cause in fact exists if conduct constituted substantial factor in causing injury, without which the injury would not have occured).

^{97.} See, e.g, Allen v. United States, 588 F. Supp. 247, 357 (D. Utah 1984), rev'd on other grounds, 816 F.2d 1417 (10th Cir. 1987), cert. denied, 108 S. Ct. 694 (1988). Factual causation only requires a "rational factual connection" between the defendant's actions and the plaintiff's injury. *Id*.

^{98.} Sedima S.P.R.L. v. Imrex Co., Inc., 473 U.S. 479, 496 (1985) (discussing factual causation requirement of RICO). The court will find a defendant who violated RICO liable for treble damages to people injured as a result of the conduct constituting the violation, but not liable for treble damages under RICO for injury caused by other actions. *Id.*

^{99.} Beck v. Prupis, 529 U.S. 494, 505 (2000), available at http://supct.law.cornell.edu/supct/html/98-1480.ZS.html (discussing cause requirement under RICO).

^{100. 18} U.S.C. § 1964(c); *See* De Falco v. Dirie, 923 F. Supp. 473, 476 (S.D.N.Y. 1996) (stating in order to have standing plaintiff must show causation of

either using Hand's test (cost of prevention v. cost to repair) or the forseeability test (where a special relationship exists, a legal duty exists and it is thus forseeable that the defendant would be liable for their conduct). While RICO seems to ignore the "special relationship rationale" and "Hand's test", it still employs the language of "forseeability." RICO defines proximate cause as "[a] substantial factor in the sequence of responsible causation, . . .[where] the injury is reasonably foreseeable or anticipated as a natural consequence." If these elements exist, then a private cause of action under RICO can proceed.

D. 18 U.S.C. § 1962(c)

Title 18 U.S.C. § 1962(c) provides that:

It shall be unlawful for any person employed by or associated with any enterprise engaged in, or the activities of which affect, interstate or foreign commerce, to conduct or participate, directly or indirectly, in the conduct of such enterprise's affairs through a pattern of racketeering activity. ¹⁰²

Under § 1962(c) the plaintiff has the burden of proof for the following elements: conduct of an enterprise; through a pattern of racketeering activity." In addition, the plaintiff must prove that there is a commercial nexus between the act and interstate commerce in order to invoke federal jurisdiction.

1. Conduct of a RICO Enterprise

Congress defined the term "enterprise" for RICO purposes broadly. A RICO enterprise "includes any individual, partnership, corporation, association or other legal entity, and any union or group of individuals associated in fact although not a legal entity." One test for whether an enterprise exists for RICO asks whether a group of persons have associated with the mutual goal of engaging in a course of conduct. Unincorporated associations, corporations,

injury by violation). The court found that the conduct that violated RICO directly caused the injury to the plaintiffs; *See also* First Nationwide Bank v. Gelt Funding Corp., 27 F.3d 763 (2d Cir. 1994) (denying RICO claim based on lack of proximate causation).

^{101.} See Hecht v. Commerce Clearing House, Inc., 897 F.2d 21, 23 (2d Cir. 1990).

^{102. 18} U.S.C. § 1962(c) (2000).

^{103.} *See*, Sedima S.P.R.L. v. Imrex Co., Inc., 473 U.S. 479, 496 (1985) (stating RICO § 1964(c) permits private actions even absent criminal conviction or racketeering injury).

^{104. 18} U.S.C. § 1961(4) (2000).

^{105.} See Procter & Gamble Co. v. Big Apple Indus. Bldgs., Inc., 879 F.2d 10, 15 (2d Cir. 1989).

partnerships and groups of individuals can all theoretically constitute a RICO enterprise. 106 Another test for whether a group constitutes a RICO enterprise asks if the defendant is an 'individual or entity capable of holding a legal or beneficial interest in property'. 107 RICO enterprises may even include government entities. 108

For the purposes of § 1962(c), the RICO "person" accused of conducting the affairs of the RICO "enterprise" through a pattern of racketeering activity must exist distinctly from that enterprise. 109 A RICO claim can succeed, however, where only "partial overlap" exists between the RICO person and the RICO enterprise. 110 Similarly, under ordinary circumstances a parent and subsidiary cannot constitute a RICO enterprise where the predicate acts occured within the scope of the agency relationship. If, however, the agentsubsidiary fails to act within the scope of the agency relationship RICO can apply to a corporate parent and its subsidiary. 112

2. Through a pattern

In order to succeed on a RICO claim, the plaintiff must demonstrate that the defendant's acts constituted a pattern of racketeering activity. 113 Specifically, the plaintiff must allege "a series of allegedly criminal acts" independent of the enterprise itself. 114 The plaintiff must prove that each defendant committed at least two RICO predicate acts, and that the alleged predicate acts related to each other and "amount to, or. . . otherwise constitute a threat of, continuing racketeering activity."115

^{106.} *Id*.

^{107. 18} U.S.C. § 1961(3) (2000). 108. 18 U.S.C. § 1961(4) (2000); *See, e.g.*, United States v. Angelilli, 660 F.2d 23, 30-33 (2d Cir. 1981).

^{109.} See Riverwoods Chappaqua Corp. v. Marine Midland Bank, N.A., 30 F.3d 339, 344 (2d Cir. 1994) (discussing distinctness requirement of RICO).

^{111.} See Discon, Inc. v. NYNEX. Corp., 93 F.3d 1055, 1064 (2d Cir. 1996). rev'd on other grounds, 525 U.S. 128 (1998) (dismissing cause of action under Sherman Act and RICO for failure to state a claim).

^{112.} See Cedric Kushner Promotions Ltd. v. King, 533 U.S. 158 (2001) (stating § 1962(c) requires no more than formal legal distinction between person and enterprise). If a corporate employee is the only owner of a corporation, the provision can apply. *Id*.

^{113.} Procter & Gamble Co. v. Big Apple Indus. Bldgs., Inc., 879 F.2d 10, 15 (2d Cir. 1989).

^{114.} *Id*.

^{115.} De Falco v. Bernas, 244 F.3d 286, 320 (2d Cir. 2001) citing H.J. Inc. v. Northwestern Bell Tel. Co., 492 U.S. 229, 239-41 (1989).

3. Of racketeering activity (predicate acts)

RICO does not address all criminal acts, but rather only a certain number of predicate acts denoted in § 1961(1). The RICO statute defines "racketeering activity" as commission of any of several "predicate acts" listed in § 1961(1), including engaging in or threatening to engage in murder, kidnapping gambling, arson, robbery, bribery, extortion, as well as acts which are chargeable under state law and punishable by imprisonment for more than one year. 117 Violations of the Hobbs Act also may constitute a predicate act for the purpose of finding racketeering activity. 118 The Hobbs Act essentially outlaws robbery, or extortion, which interferes with interstate commerce. 119

Substantive state criminal offences can also constitute a predicate act under RICO. ¹²⁰ In interpreting racketeering statutes, courts treat references to state law as intended to broadly define the types of illegal activity proscribed by the federal statute. ¹²¹ While RICO incorporates substantive state offences by reference, the reference merely serves to define a generic category of activites that violate RICO. ¹²² Therefore, the court does not need to charge the elements of the substantive state crimes that constitute the racketeering activity to prevail on a RICO claim. ¹²³ Likewise, state procedural defenses are not available to a defendant charged with a violation of RICO. ¹²⁴ Ironically, this means an alleged state crime could constitute a predicate offense, despite acquittal by the state court. ¹²⁵ The rationale for this bifurcation is that because the federal offense is independent of the state offense the state procedural limitations are irrelevant to

^{116.} Hecht v. Commerce Clearing House, Inc., 897 F.2d 21, 25 (2d Cir. 1990) (stating court must base finding of standing on predicate racketeering act).

^{117. 18} U.S.C. §1961(1) (2000) (defining predicate acts for finding of racketeering). *See also* Wiwa V. Royal Dutch Petroleum Co., 2002 WL 319887, *22 (S.D.N.Y. 2002) (stating racketeering activity refers to commission of predeicate acts listed in 18 U.S.C. § 1961(1)).

^{118. 18} U.S.C. § 1951 (2000); *See* United States v. Tocco, 306 F.3d 279, 279 (6th Cir. 2002) (stating violations of Hobbs Act constituted racketeering under RICO).

^{119. 18} U.S.C. § 1951 (2000).

^{120.} See supra note 117 and accompanying text.

^{121.} United States v. Bagaric, 706 F.2d 42, 62 (2d Cir. 1983) abrogated on other grounds by Nat'l Org. for Women, Inc. v. Scheidler, 510 U.S. 249(1994).

^{122.} *Bagaric*, 706 F.2d at 62 (2d Cir. 1983) (stating state offenses included by generic designation).

^{123.} *Id*.

^{124.} Id.

^{125.} *See* United States v. Coonan, 938 F.2d 1553, 1564-65 (2d Cir. 1991) (holding defendant not entitled to avoid results of unsuccessful tactical choice made in allowing admission of otherwise inadmissible evidence).

the definition of a new and independant substantive offense. At least one court has explicitly stated, "[c]ongress did not intend to incorporate the various states' procedural and evidentiary rules into the RICO statute." ¹²⁶

While the predicate acts exist independent of their state law counterparts and thus unrestricted by state procedural limitations, predicate acts based on state law must "include the essential elements of the state crime." The basic substantive (as opposed to procedural) elements, such as the specifc acts that constitute actus reus as well as mens rea, must be included in the federal offense. This impacts the determination of the extraterritorial applicability of RICO. Is the location of the crime an essential substantive element of the crime (which would limit the application of RICO to the U.S. territory or perhaps U.S. citizens)? Or is instead the territorial locus of the crime within the territory of one of the several states merely a procedural form? At least one court has ruled that the location of the crime within a state's borders does not constitute a substantive element of the crime, but rather represents a procedural aspect. 128 Thus, the RICO predicate act can occur outside the territory of the United States. As a consequence, RICO could have extraterritorial application.

4. Commercial Nexus

Under federal statutes, such as RICO, the plaintiff has the burden of proving federal jurisdiction. Specifically, the plaintiff must prove that the enterprise engaged in predicate acts that affect interstate or foreign commerce. Given the broad definition of interstate commerce in contemporary constitutional law, plaintiffs should meet this procedural requirement with relative ease.

E. 18 U.S.C. § 1962(d): Conspiracy to Commit a Substantive RICO offence

RICO outlaws not only substantive crimes, whether in state or federal law but also conspiracy to commit substantive offences. According to § 1962(d) it is "unlawful for any person to conspire to

^{126.} *Id.* at 1564. *But see*, Peters v. Welsh Development Agency, 1991 WL 172950, * 7 (N.D. Ill. 1991).

^{127.} See, e.g., United States v. Carrillo, 229 F.3d 177, 186 (2d Cir. 2000). (affirming racketeering conspiracy to commit racketeering). The court did not require an overt act in furtherance of conspiracy to support conspiracy conviction.

^{128.} See Coonan, 938 F.3d at 1564 (2d Cir. 1991).

^{129. 18} U.S.C. § 1962(c) (2002).

violate any of the provisions of subsection (a), (b), or (c)" of § 1962.

Plaintiffs must allege an agreement between defendants and others to facilitate the commission of a violation of section 1962(c). RICO does not require that co-conspirators in a § 1962(d) conspiracy know of all violations by other conspirators in furtherance of the conspiracy. Complicity, or aiding and abetting the commission of a RICO offense, however, does not constitute a RICO predicate act, nor will it suffice in securities law.

This synopsis of RICO law sets the stage for analysis of the computer program which represents the law exposed. We now turn our attention to the program as an example of using computers to help solve legal problems.

IV. THE COMPUTER PROGRAM:

A. Introduction

The computer program accompanying this article presents a model of all of the previously addressed legal points. Based on a series of questions, the program determines the defendant's liability under RICO and generates a brief report of its findings, including citations to relevant legal authority.

Programmatically, this approach presents a rather closed system, in that the program really only demonstrates the information contained in this article. It allows the reader, however, to explore the various possible combinations of facts and laws. Further, it generates legally founded answers to the specific questions it seeks to answer. In contrast, an open program would seek to determine the answer for a much less focused problem, for example whether a crime was committed. Such a program would have to work with far more general concepts. It would also probably have to "learn" from the

131. See Salinas v. United States, 522 U.S. 52, 65 (1997) (stating no "overt act" required for RICO conspiracy).

^{130. 18} U.S.C. § 1962(d) (2002).

^{132.} United States v. Zichettello, 208 F.3d 72, 100 (2d Cir. 2000) (stating government not required to prove RICO defendant had actual knowledge of all criminal acts of conspirators in furtherance of conspiracy). This case involved an appeal from convictions and sentences in a multi-defendant, RICO conspiracy case. *Id*

^{133.} See De Falco v. Bernas, 244 F.3d 286, 330 (2d Cir. 2001) (granting in part appeal against excessive damages awarded in RICO conviction).

^{134.} Central Bank of Denver, N.A. v. First Interstate Bank of Denver, N.A., 511 U.S. 164, 165-66 (1994).

users inputs and save its results as a database. While such tasks are programmatically possible, this program seeks to solve an area of law more tightly defined. Hopefully, future efforts will consider solutions to "open" general problems such as which legal arguments could be used by either plaintiff or defendant and which of those arguments would be likely to succeed – that is, a legal diagnostic. Future programs will learn from session to session by storing data generated reading from it and modifying it with each session, thereby "learning" to solve the problem presented to the program. Such a task represents a challenge more complex than the problem addressed by this article. The computer program at hand, however, serves to illustrate how A.I. can address a novel question: whether the RICO can be used as a supplement to the ATCA and TVPA as a remedy to violations of human rights overseas, particularly in the third world.

B. Instructions for using the Program

The program is actually remarkably straightforward. There are four main buttons on the left side of the program's display, labelled "Extraterritorial Jurisdiction", "RICO Standing", 1962(c) and 1962(d) which allow you to test a specific case to determine respectively: Whether RICO has extrateritorial effect in an ATCA case. This is actually a novel legal issue and does not appear to have been determined at the appellate level. The remaining legal issues, though solidly determined by appellate courts remain interesting as potentially applicable to ATCA/TVPA type cases. Namely, whether a plaintiff has legal standing to bring a RICO claim (RICO Standing), and whether the substantive provisions of RICO § 1962(c) or § 1962(d) apply to the case whose facts you provide. Beneath the buttons is a yellow "virtual legal pad" where the output of the program will appear, with legal citations. You can cut and paste from the "virtual legal pad." Note that the contents of it are erased when you press any of the four buttons to launch a question session.

V. CONCLUSION

In conclusion, computer programs can analyze probable legal outcomes in an area of law where there is no appellate authority. The program does not contain within it the diagnostic for determining how an appellate court decides undetermined issues discussed in this article. Those principles could be termed: (1) parsimonious decision making – the court decides only those questions which must be decided ignoring other questions or at most answering them

hypothetically (the latter as a hedge in case their decision is appealed); (2) judicial economy – judges use established legal concepts whereever possible rather than inventing new ones; (3) legal realism – judges try to decide cases such that they leave themselves and appellate courts enough doctrinal maneuverability that there decision can be "hedged" and "distinguished" on appeal; and (4) *stare decisis* - a preference for distinguishing legal decisions from each other rather than overruling them where possible.

A host of other jursiprudential (in the sense of prudent judgment) criterion could be discovered or elaborated. But while it is true that such principles clearly guide judges they are almost never elucidated as such! This may be because the "general principles of law" are not a source of legal authority in the common law, unlike the civil law and international law where generally recognized principles of law such as proportionality or the right to self defense can be sources of law. Common law judges are notoriously uncomfortable with deductive reasoning, preferring induction wherever possible though in fact deduction is an integral part of civilian legal systems and international law.

Though heuristic principles for predicting how judges think are not elucidated in the common law as legal principles, they do in practice exist. Developing such principles to predict how judges reason in even less determinate cases than the example here (RICO's extraterritorial applicability) could be the basis for future research and development of decision making programs. However, the greater the abstraction the less certain are outcomes: practical principles in the common law could be found but to expect perfect prediction from pure abstraction in an inductive legal system is like squaring the circle. It might be possible in theory, but developing the algorithm to do so perfectly will probably prove impossible in practice. By focusing on the less abstract question of RICO's extraterritorial applicability, the paper would be able to reach a determinable and justifiable result which also may help appellate courts in deciding this issue when it eventually reaches them. Naturally, future research will work on developing more abstract general solutions to legal problem solving, just as initial efforts at writing chess programs for computers began with the humble "knights tour" and eventually reached playability and finally began thrashing most humans soundly.

While we may be decades from the point where computer programs will be able to hear evidence, make rulings on motions, choose between arguments, apply those arguments, and reach balanced and well thought out conclusions we should not say that such is impossible. Rather we should ask ourselves what is possible.

It is possible to use a computer to ask a series of questions and from the answers to those questions reason to legally supported outcomes. If we are one day to develop programs capable of legal diagnostics we should focus on the possible while seeking to constantly stretch it a bit further. Hopefully this program is one example of such an effort. ¹³⁵

135. To view and test the computer program, please visit Suffolk Univeristy Law School's Journal of High Technology Law website at http://www.jhtl.org/publicationsV3N1.html