A NEO-INSTITUTIONAL PARADIGM FOR CONTRACTS FORMED IN CYBERSPACE: JUDGMENT DAY FOR THE STATUTE OF FRAUDS

I am not an advocate for frequent changes in laws and constitutions. But laws and institutions must go hand and hand with the progress of the human mind. As that becomes more developed, more enlightened, as new discoveries are made, new truths discovered and manners and opinions change, with the change of circumstances, institutions must advance also to keep pace with the times. We might as well require a man to wear still the coat which fitted him when a boy . . . .

— Thomas Jefferson[1]

I. INTRODUCTION

Perhaps no other regulatory device in contract law has invited as much debate, nor incurred as much criticism, as the controversial Statute of Frauds codified at U.C.C. section 2-201(1).[2] Originating in England in 1677,[3] this statute has been adopted and modified in some form by nearly all of the fifty states.[4] The full name of the English statute is "An Act for the Prevention of Frauds and Perjuries" and its introductory clause explains its general purpose: "For prevention of many fraudulent practices, which are commonly endeavored to be upheld by perjury or subornation of perjury . . . ."[5]

For generations the Statute of Frauds has been criticized for being anachronistic and/or inadequate.[6] For the paper-based

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[1] Inscription at the Jefferson Memorial, Washington, D.C.

[2] U.C.C. § 2-201(1) (1991) provides, in relevant part:

> [A] contract for the sale of goods for the price of $500 or more is not enforceable by way of action or defense unless there is some writing sufficient to indicate that a contract for sale has been made between the parties and signed by the party against whom enforcement is sought or by his authorized agent or broker. A writing is not insufficient because it omits or incorrectly states a term agreed upon but the contract is not enforceable under this paragraph beyond the quantity of goods in such writing.

[3] An Act for the Prevention of Frauds and Perjuries, 1677, 29 Car. II, ch. 3, § 4 (Eng.), *cited in* 72 AM. JUR. 2D *Statute of Frauds* § 285 (1974). Section 4 provides that "no action should be brought on certain contracts unless the agreement upon which such action shall be brought, or some memorandum or note thereof, shall be in writing and signed by the party to be charged therewith, or some other person thereunto by him lawfully authorized." *Id.* § 4.

[4] JOHN P. DAWSON ET AL., CASES AND COMMENT ON CONTRACTS 957 (6th ed. 1993) ("The original English [S]tatute of [F]rauds, which has provided the model for American legislation, became effective in 1677."); 72 AM. JUR. 2D *Statute of Frauds* § 285 ("Similar requirements as to the memorandum have been incorporated in [S]tatutes of [F]raud enacted in American jurisdictions, and the Uniform Commercial Code [S]tatute of [F]rauds governing a contract for the sale of goods for the price of $500 or more . . . .").

[5] DAWSON, *supra* note 4, at 957.

[6] *See* DAWSON, *supra* note 4, at 272 ("To some critics, the [S]tatute seemed more and more an anachronism. At the least, it seemed that the policies supporting it were not clear enough to preclude redress for substantial reliance losses if damages could give indemnity."), *citing* Lionel M. Summers, *The Doctrine of Estoppel Applied to the Statute of Frauds*, 79 U. PA. L. REV. 440 (1931); Roger S. Cunningham, *A Proposal to Repeal Section 2-201: The Statute*

transactional environment the drafters originally contemplated,[7] the Statute arguably fulfilled its objectives.[8] Since its inception, however, much in that environment has changed. The predicament is that a regulation employing "writings" and "signings" as indicators of a party's intention is flawed when those indicators lack clear definition.[9] The result is terms with debatable meanings subsequently open to a variety of inconsistent interpretations.[10] This inconsistency yields greater uncertainty within the law than is optimal.[11]

New and emerging technologies highlight these flaws.[12] Does

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of Frauds Section of Article 2, 85 COM. L.J. 361, 361 (1980) ("Upon a review of much of the case law and commentaries dealing with the [S]tatute of [F]rauds provision of Article 2 of the Uniform Commercial Code, it is my conclusion that this [S]tatute of [F]rauds no longer serves a useful purpose and should be repealed."); Hugh E. Willis, *The Statute of Frauds—A Legal Anachronism*, 3 IND. L.J. 427, 528 (1928).

7 *See* Patricia B. Fry, *X Marks the Spot: New Technologies Compel New Concepts for Commercial Law*, 26 LOY. L.A. L. REV. 607, 610-11 (1993) ("[E]xisting provisions are replete with assumptions of the existence of pieces of paper, whether explicit or not.").

> [For specific examples see] U.C.C. §§ 1-206, 2-201, 2A-201, 8-319. Other references to paper may be found in §§ 2-207, 5-104, and 9-203(1)(a), in the definitions of "order" and "promise," § 3-103(a)(6), (9), and in § 9-402(1), which requires that the debtor sign a financing statement. A number of provisions throughout the Code call for written notice, *see, e.g.*, *id.* § 2-609(1) (demanding written assurances of performance), and others have been interpreted to require written notice, *see, e.g.*, *id.* § 9-504(3) (requiring written notice to debtor before collateral is sold). Any random survey of Code provisions will find numerous references to notices, sending, delivering or receiving, conspicuous terms and the like.

Id. at 611 n.6.

8 *But see* Francis Burdick, *A Statute for Promoting Fraud*, 16 COLUM. L. REV. 273 (1916); *see also* PEB Study Group for the Uniform Commercial Code Article 2: Preliminary Report 11 (1991) (stating "§ 2-201 has generated considerable litigation without evidence that perjury on the making or terms of a contract for sale has been deterred. In fact, some argue that the [S]tatute of [F]rauds stimulates rather than deters fraud.") [hereinafter PEB Study Group, Preliminary Report], *cited in* UNIFORM COMMERCIAL CODE REVISED ARTICLE 2. SALES 1 at 51 (Discussion Draft, Sept. 10, 1994) [hereinafter 1994 U.C.C. DISCUSSION DRAFT].

9 *See* BENJAMIN WRIGHT, THE LAW OF ELECTRONIC COMMERCE 274 (1991) ("Decrees requiring writings and signings are imperfect tools. Their meanings are sometimes debatable, and many courts have circumvented them even when they clearly apply.").

10 *See id.* at 277-79. Wright cites case law exemplifying inconsistent interpretations in the context of Statute of Frauds requirements such as: *In re* Save-on-Carpets of Ariz., Inc., 545 F.2d 1239 (9th Cir. 1976), which holds that a typewritten name on a financing statement constituted a valid signature under the Statute of Frauds, as compared to *In re* Carlstrom, 3 U.C.C. Rep. Serv. (Callaghan) 766 (Bankr. D. Me. 1966), which holds that a typewritten name on a financing statement did not constitute a valid signature under the Statute of Frauds. *Compare* Roos v. Aloi, 487 N.Y.S.2d 637 (N.Y. App. Div. 1985) (holding that a tape recording of an oral contract does not constitute a valid "writing" under the Statute of Frauds) *with* Ellis Canning Co. v. Bernstein, 348 F. Supp. 1212 (D. Colo. 1972) (holding that a tape recording of an oral contract does constitute a valid "writing" under the Statute of Frauds); *compare* State v. White, 735 P.2d 684 (Wash. 1987) (holding that an automatic teller machine card does not constitute a "written instrument") *with* Allstate Ins. Co. v. Renshaw, 258 S.E.2d 744 (Ga. Ct. App. 1979) (holding that the misuse of an automatic teller machine card is considered forgery because the act of recording a personal identification number into the ATM constitutes a form of writing).

11 *See supra* note 10.

12 *See, e.g.*, Sharon F. DiPaolo, *The Application of the Uniform Commercial Code Section 2-201*

an electronic transaction constitute a "written" contract? Is a fax transmission considered "signed?"[13] The answers to these questions are not clear. The courts' inconsistent treatment of these contracts may result in the rendering of legitimate contracts legally invalid or unenforceable.[14] Although many courts interpret the Statute liberally in an attempt to accommodate transactions that may challenge the validity of U.C.C. section 2-201,[15] instances exist in which otherwise legitimate contracts have been deemed unenforceable because of a perceived failure to satisfy the Statute.[16] No lawsuit has yet been adjudicated that directly examines whether a contract formed via an electronic transmission satisfies the Statute of Frauds. Because of this absence of clear authority, doubt as to whether electronic transactions constitute signed writings persists.[17] Consequently, the question arises whether electronic con-

Statute of Frauds to Electronic Commerce, 13 J.L. & COM. 143, 146 (1993) (stating that, in the context of electronic contracting, "[a]lthough originally intended to protect against fraudulent claims, the Statute of Frauds has come into disfavor because it is susceptible to misuse by parties invoking its technical requirement of a signed writing in order to avoid an otherwise valid oral contract."); 1994 U.C.C. DISCUSSION DRAFT, *supra* note 8, at 51 ("Many transactions are created by exchanges of electronic, verbal or other communications that cannot readily be incorporated within the idea of a signed 'writing.' In this setting, there is no sufficient benefit that justifies the cost of a [S]tatute of [F]rauds in litigation and business practice."); *cf.* Cunningham, *supra* note 6, at 363 ("[T]he repeal of the [S]tatute of [F]rauds would eliminate all of the time, work, and expense involved in trying to avoid the bar of the [S]tatute of [F]rauds by trying to fit [it] within one of the statutory or judicial exceptions.").

[13] In a recent front-page story, the *New York Law Journal* highlighted a Manhattan (New York County) Supreme Court decision that held that the subscription requirement of the Statute of Frauds was sustained by an unsigned legend on a fax. In WPP Group USA, Inc. v. The Interpublic Group of Cos. Inc., slip op. (N.Y. Sup. Ct. Oct. 3, 1995) the court found that an unsigned fax transmission satisfied the Statute of Frauds. *See* Bill Alden, *Statute of Frauds Held Satisfied by Fax: Traditional Doctrine Applied to Technology*, N.Y.L.J., Oct. 4, 1995, at 1. The only other decision in New York to ever hold that a fax sustains the signing requirement of section 2-201 was in 1992 when the Queens County Supreme Court ruled that the subscription requirement of the Statute of Frauds was satisfied by a fax transmission. *Parma Tile Mosaic & Marble Co. v. Estate of Short*, 590 N.Y.S.2d 1019 (N.Y. Sup. Ct. 1992).

[14] *See* Corinthian Pharmaceutical Sys. v. Lederle Lab., 724 F. Supp. 605 (S.D. Ind. 1989) (regarded as the "first purely computer-generated contract case"; the court held that lack of a confirmation on an electronically transferred contract invalidated the agreement); *cf.* Pike Indus., Inc. v. Middlebury Assocs., 398 A.2d 280 (Vt. 1979) (declaring that a name on a telegram cannot be held to constitute a signature for purposes of the Statute of Frauds). Although this case is believed by many to be an anomaly, it highlights the potential dangers and the type of disorder that may result in the context of electronic transactions when legal uncertainty regulates a subject matter.

[15] *See, e.g.*, W.M. Elliot, Case and Comment, 26 CANADIAN B. REV. 1242 (1948) (citing a case that held a memorialized tractor fender satisfied the writing requirement); Sidney T. Miller, *Notes on Some Interesting Wills*, 12 MICH. L. REV. 467, 468 (1914) (discussing a case where a memorialized bedpost satisfied the writing requirement).

[16] *See* Lige Dixon Co. v. Union Oil, 635 P.2d 103 (Wash. 1981) (accepting a Statute of Frauds defense and denying enforcement even though parties clearly entered into a valid contract).

[17] *See* A.B.A. Electronic Data Messaging Task Force, *The Commercial Use of Commercial Data Interchange—Report and Model Trading Partner Agreement*, 45 BUS. LAW. 1645, 1680 (1990) [hereinafter *ABA Report and Model Trading Partner Agreement*] (reporting that of the

tracts are enforceable in light of section 2-201. This uncertainty may potentially undercut the growth and efficiency of electronic commerce. Furthermore, the potential exists for courts to render invalid or unenforceable legitimate contracts formed via electronic means.[18] In addition, a contracting party with fraudulent intent may deliberately breach an agreement and subsequently be shielded by the Statute of Frauds.

Existing law, created prior to the advent of electronic communication technologies, runs the risk of inadequately accommodating radical technological change.[19] In particular, contract rules devised and implemented for use in a paper-based environment have an observable tendency to become obsolete when used in circumstances where traditional *modus operandi* no longer apply.[20] In the context of contracts formed in cyberspace[21] the predicament cannot be ignored; the more significantly technological paradigms shift, the more blatant the inadequacies of certain legal antiquities appear.[22]

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40 trading agreements examined, the Statute of Frauds was the "single most common" issue addressed in the context of electronic transmissions); *see also supra* note 14. In addition, the current "Study Group" appointed to review U.C.C. Article 2 has recommended repealing the Statute of Frauds. *See* A.B.A. Subcommittee, *An Appraisal of the March 1, 1990, Preliminary Report of the Uniform Commercial Code Article 2 Study Group*, 16 DEL. J. CORP. L. 981, 1035 (1991) [hereinafter *Article 2 Appraisal*].

Finally, a recent critique of the Statute and its effect on Article 2 found that the technological developments of EDI transactions "not envisioned by the Drafters of Article 2 will test the capacity of the Code to keep pace with business developments." PEB Study Group, Preliminary Report, *supra* note 8, at 58.

18 *See supra* note 14.

19 *See* Jeffrey B. Ritter, *Scope of the Uniform Commercial Code: Computer Contracting Cases and Electronic Commercial Practices*, 45 BUS. LAW. 2533, 2537-38 (1990) (verifying that the "introduction of new technologies in communication and information processing will have continuing implications for various areas of commercial law" and "identified a number of situations where existing statutory provisions generate an uncomfortable fit, the most notable example being the adaptability of . . . § 2-201 of the Code to contracts arising through the use of EDI . . . ."); *see also ABA Report and Model Trading Partner Agreement, supra* note 17.

20 Change in the law is not based simply on the new tools being adopted by lawyers and certainly not on any single piece of software or hardware, but on the degree of difference between these tools and traditional tools the law has used. It is the ripple effect brought about by new patterns of interacting with information and with people that is leading the law, and other institutions, in new directions.

M. ETHAN KATSH, LAW IN A DIGITAL WORLD 9-10 (1995).

21 "Cyberspace [is] a term coined by William Gibson in his fantasy novel *Neuromancer* to describe the 'world' of computers and the society that gathers around them." BRENDAN P. KEHOE, ZEN AND THE ART OF THE INTERNET: A BEGINNER'S GUIDE 170 (1994).

22 At the heart of informational and legal change is the shift from printing, from letters fixed on paper, to information in electronic form, to information stored as electrical impulses and as sets of ones and zeroes. In this transition period, and even later, we will not have a paperless environment but we will, more routinely, access information in electronic form, and we will employ tools that allow us to work with and communicate information in ways that are difficult, or not even possible, with letters and numbers fixed on paper.

KATSH, *supra* note 20, at 9.

This Note makes two fundamental points concerning a formal requirement traditionally imposed for the formation of contracts. Specifically, it addresses the Uniform Commercial Code's Article 2 Statute of Frauds.[23] The first point involves a basic change in the concept and application of the Statute. In response to recent controversy[24] surrounding the issue of "retention versus repeal," this Note advocates a compromise. Applying a neo-institutional microeconomic theory for procedural efficiency in legal rule formulation,[25] this Note suggests transferring the concept of the Statute from its historical role as a basic principle of contract formation—applicable to all transactions that fall within the scope of Article 2—into an ancillary contract law rule, applicable only to particular types of transactions.[26] Derived from the normative eco-

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[23] The basic structure of contract law of the Uniform Commercial Code can be found within Article 2. Although the main thrust of Article 2 centers around the sale of goods, courts have consistently construed the term "goods" broadly in addition to applying Article 2, by analogy, to transactions far beyond its substantive scope. *See* Xerox v. Hawkes, 475 A.2d 7 (N.H. 1984) (service agreement); Dillman & Assocs. v. Capitol Leasing Co., 442 N.E.2d 311 (Ill. App. Ct. 1982) (equipment lease); Hertz Commercial Leasing v. Transportation Credit Clearing House, 298 N.Y.S.2d 392 (N.Y. Civ. Ct. 1969) (equipment lease), *cited in* Raymond T. Nimmer, *Intangible Contracts: Thoughts of Hubs, Spokes, and Reinvigorating Article 2*, 35 WM. & MARY L. REV. 1337 n.1 (1994); *see also* LTV Fed. Credit Union v. UMIC Gov't Sec., 523 F. Supp. 819 (N.D. Tex. 1981) (standby commitment agreement), *aff'd*, 704 F.2d 199 (5th Cir. 1983), *cert. denied*, 464 U.S. 852 (1984).

[24] *See Article 2 Appraisal*, *supra* note 17, at 1033 (stating that "[s]ection 2-201 has generated considerable litigation, controversy and commentary"); *see also* Richard E. Speidel & Neil B. Cohen, *The Emerging Article 2: Problems Needing Resolution*, *in* THE EMERGED AND EMERGING NEW UNIFORM COMMERCIAL CODE 343 (A.L.I.-A.B.A. Course of Study, Dec. 9, 1993); Richard Speidel, *Revising Article 2: Some Emerging Problems*, 1991 CALLAGHAN COM. L. ANN. 51.

[25] Neo-institutional rule formulation focuses on transactions and the manner and extent to which their costs are affected by the legal and economic environment in which they take place . . . . [T]he approach focuses on the adjustment process that supports lasting contractual relations in the face of opportunism, *particularly when contracts are incompletely specified*. Rather than being concerned with conventional Pareto efficiency, its major interest is with *procedural efficiency in adjusting to uncertainty and change in the legal and economic environment*.

WERNER Z. HIRSCH, LAW AND ECONOMICS—AN INTRODUCTORY ANALYSIS 9 (2d ed. 1979) (emphasis added).

[26] For the purposes of this Note, governing contract regulations are divided into two distinct categories: contract law rules and basic contract formation principles.

A contract law rule is distinguished from a basic contract formation principle in that contract law rules are uniquely tailored ancillary rules applicable only to specific types of transactions. For example, the Drafting Committee has proposed enumerating a specific provision in Revised Article 2, Sales concerning "consumer contracts." *See* UNIFORM COMMERCIAL CODE REVISED ARTICLE 2, SALES § 2-719(d) (1994). This subsection provides certain rules applicable only in the context of consumer contracts. One rule grants a buyer the right to "revoke acceptance, obtain either a refund or replacement of the goods from the seller and pursue other remedies as provided . . . ." *Id.* at 94. This right applies "[i]f an agreed, exclusive remedy should fail its essential purpose and the seller is still in breach." *Id.* Under the two distinct categories described above, this regulation would be considered a contract law rule, always applicable to consumer contracts, yet not applicable to other types of transactions.

A basic contract formation principle, however, is viewed as an overriding contract ax-

nomic philosophy[27] of Pareto optimality,[28] this neo-institutional approach seeks to construct precise rules that optimize a particular function using procedural efficiency maximization as the driving force.[29] The second point proposes that in following this neo-institutional cost/benefit analysis, certain commercial transactions—particularly transactions conducted via electronic networks—should not be governed by the Statute. Both of these points are based in the belief that while some aspects of commercial transactions should unquestionably be extracted from a "common core of contract theory and doctrine,"[30] other aspects of commercial transactions should be drawn from distinct rules of contract law.[31]

The burgeoning use of the Internet and other electronic transmission systems has resulted in the widespread use of electronic transactions as a standard and popular mode for contracting

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iom, applicable to all transactions within the scope of Article 2. For example, the principles of mutual assent, offer and acceptance, consideration, and unconscionability are regarded as basic contract formation doctrines, appropriate and necessary for all Article 2 transactions.

27 "Rule formulation seeks to maximize or minimize some specified goal, often allocative efficiency. Normative or welfare economics is ideally suited for this task. This approach usually is applied after a failure to achieve a desired goal. Efforts are then undertaken to prescribe corrective solutions." HIRSCH, *supra* note 25, at 94.

28 "A Pareto-superior transaction is one that makes at least one person in the world better off and no one worse off. . . . In other words, the criterion of Pareto superiority is unanimity of all affected persons." The maximum efficient allocation of resources that is brought about by a transaction is said to be Pareto superior to the allocation of resources that occurred prior to that transaction. RICHARD A. POSNER, ECONOMIC ANALYSIS OF LAW 12 (3d ed. 1986).

29 First, . . . [the neo-institutional analysis process] lists a set of economically relevant categories that are useful for examining the law. It thus remedies one of the failings of the neo-classical market approaches, that of being over-general and incapable of dealing convincingly with specific legal phenomena. . . . Secondly, and related to this, the approach is more microanalytical. It focuses on the details of the environment in which transactions take place, and it suggests an empirical approach that requires the collection of more detailed data on individual transactions rather than data on quantitative aggregates. It is able, for example, to integrate and use constructively the sociological evidence on how businessmen contract and use contract law . . . . Thus, while the market approach focuses on impersonal, aggregative forces, the neo-institutional approach focuses on individual or small number transactions where personality, relations and power are important. Thirdly, in terms of methodology it comes closer to qualitative biology than to the physical sciences that have greatly influenced neoclassical economics. It is therefore process-oriented, dynamic, tends to be evolutionary, and seeks to identify the principal factors that have been responsible for institutional development. Stated somewhat differently it rejects (market) equilibrium analysis and instead places emphasis on the adaption to disequilibrium, hypothesizing that "inefficiency" gives rise to adaptive efforts to minimize costs. Lastly, it investigates specifically legal/institutional phenomena, and uses these to develop conceptual categories rather than evidence to verify an efficiency-type hypothesis.

PAUL BURROWS & CENTO G. VELJANOVSKI, THE ECONOMIC APPROACH TO LAW 22-25 (1981).

30 Nimmer, *supra* note 23, at 1340.

31 *Id.*

within the commercial business environment.[32] This trend, coupled with recent actions of the National Conference of Commissioners on Uniform State Laws ("NCCUSL") to revise Article 2 of the Uniform Commercial Code to accommodate the current changes in the nature of modern commercial activity,[33] contribute to the timeliness of this discussion.[34]

Part II examines the Statute of Frauds from an historical per-

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[32] *See ABA Report and Model Trading Partner Agreement, supra* note 17, at 1649 ("The integration of EDI into ongoing business activities has occurred, and is expected to continue, at a considerable rate. Over time, EDI will likely become the predominant method of sales contracting."); *id.* at 1714 (explaining that "EDI is no longer an emerging technology; EDI is a technology which is implemented today to realize a competitive advantage, but which will eventually be considered a competitive necessity."); Darryl K. Taft, *EDI Technology Eases Data Translation Process*, GOV'T COMPUTER NEWS, July 22, 1988, at 51 (forecasting that almost 70% of all companies will use electronic transmissions for commercial transactions by the year 2000); Jim Meyer, *The Challenge of Electronic Commerce: Finding Your Way On A Paperless Trail*, 78 A.B.A. J. 85, 85 (1992) ("Electronic commerce is expected to become the mandatory method of doing business sooner than you might expect. For example by May 1993, if you want to do business with the U.S. Department of Defense, you won't be using paper. By that time, only electronic information will be exchanged in contracting and other transactions with the department."); John W. Verity & Robert D. Hof, *The Internet: How it Will Change the Way You Do Business*, BUS. WK., Nov. 14, 1994, at 80 ("[E]lectronics manufacturers . . . [are] building CommerceNet, an Internet marketplace for electronics goods and services. If it develops as planned, it could just about eliminate all paperwork between participating companies—everything from simple purchase orders and invoices to resumes and product specifications."); Edmund L. Andrews, *MCI to Offer One-Stop Shopping on the Internet*, N.Y. TIMES, Nov. 21, 1994, at D2 (MCI Communications Inc. will announce . . . a broad package of access services that includes an electronic shopping mall for consumers and high-speed connections for businesses.").

[33] A Drafting Committee appointed by the National Conference of Commissioners on Uniform State Laws ("NCCUSL") currently is revising Article 2.

In March of 1988 the Permanent Editorial Board of the Uniform Commercial Code ("PEB") and the NCCUSL appointed a "Study Group" in order to identify problems of practical importance in Article 2, and to recommend possible revisions. In response the Group recommended revisions and the appointment of a Drafting Committee. *See PEB Study Group, Uniform Commercial Code, Article 2 Executive Summary*, 46 BUS. LAW. 1869, 1870 (1991). In December 1991, a Drafting Committee was created by the NCCUSL with the objective of revising Article 2, Sales, in order to "preserve freedom of contract . . . [and to facilitate, by codification] commercial practice so that contract law reflects an effort to identify, clarify and, where needed, validate patterns of contract practice to the extent that these are not inconsistent with modern social policy." 1994 U.C.C. DISCUSSION DRAFT, *supra* note 8; Richard E. Speidel, *Contract Formation and Modification Under Revised Article 2*, 35 WM. & MARY L. REV. 1305, 1305 (1994).

In July 1995, the Executive Committee of the NCCUSL resolved that the correct approach for revising Article 2 was to create a distinct article on intangibles contracting dealing solely with licensing and other transactions involving digital information and related rights in intangible property. The Drafting Committee's target completion date for this project is August 1996. *See* Speidel & Cohen, *supra* note 24, at 345.

[34] *See, e.g.*, RAYMOND T. NIMMER, ARTICLE 2B PREFACE, MEETING THE INFORMATION AGE i (Discussion Draft Dec. 1, 1995) ("Virtually the entire UCC is being revised and updated. The various prongs of the revision process reflect an effort to make the UCC commercial contract principles relevant to modern practice, but also sensitive to differences in how legal principles should be tailored to business practices in particular areas.").

Professor Nimmer (J.D., 1968, Valparaiso University School of Law), Acting Dean and Leonard Childs Professor of Law, University of Houston Law Center, is a leading authority on Article 2 and serves as the Reporter on Technology Issues to the Drafting Committee to Revise U.C.C. Article 2.

spective. Particular scrutiny is focused upon the formal requirements of the Statute and the objectives those requirements were created to achieve.

Part III examines the tension that has historically existed between new and emerging technologies and the Statute of Frauds. This part describes some of the novel communications media that are currently challenging existing legal tenets and examines their place in the contemporary business world. In addition, it outlines and evaluates the obstacles that the current Statute imposes on transactions conducted on-line. Part III concludes by confirming that advanced technological devices have not only substantially changed the way the commercial sector conducts business, but have benefited society as a whole. Thus, to accommodate these changes, certain accepted legal axioms should be restructured to insure the stability and growth of these technologies. It further substantiates the argument that the drafters of "new" Article 2 should delineate the types of transactions that fall within the scope of section 2-201 and those that should be beyond its reach.

Part IV suggests that immediate modification of the concept and application of the Statute of Frauds is imperative to insure that certain legitimate transactions will not lose their legal effect. Part IV refutes the proposition that the Statute should undergo either broad re-definition or universal repeal. Instead, it advocates applying the economic paradigm of neo-institutional legal rule formulation to transform the concept and restructure the application of section 2-201. This approach is based on the institutional economics of John Commons[35] and seeks to construct a "new" Statute of Frauds with the objective of creating a precise rule that minimizes transaction costs while maximizing procedural efficiency. It then applies this "Pareto-esque" cost/benefit analysis that justifies disregarding the Statute for certain types of transactions. The application of this analysis reflects costs resulting from 1) unnecessary litigation; 2) preventing a party from enforcing a legitimate contract; 3) inefficient business practices; 4) the instability created within both the law and the commercial setting due to excessive legal uncertainty; and 5) the fact that the rules of the Statute of Frauds are often circumvented by courts.[36] In arguing for a cost/benefit analysis to be effectuated, part IV rebuts the traditional no-

[35] *See generally* JOHN COMMONS, LEGAL FOUNDATIONS OF CAPITALISM (1924); JOHN COMMONS, INSTITUTIONAL ECONOMICS (1934). Both of these works examine the significance of group controls or regulations as the foundations for the efficient growth of individual action and form the basis for the economic theory of institutional legal rule formulation.

[36] *See* 1994 U.C.C. DISCUSSION DRAFT, *supra* note 8, at 51.

tion that the Statute of Frauds should be considered a "basic provision" and instead, advocates transferring the traditional role of the Statute from a common core of contract theory and doctrine into an ancillary, flexible contract law rule.

Part V concludes that the paper-based, antiquated concept of a Statute of Frauds represents a hindrance to commercial growth. Thus, in keeping with the rationale of part III and because of the current climate for change concerning Article 2, this Note suggests that for Article 2 transactions, the Statute of Frauds should be regarded as a governing contract rule applicable only when deemed appropriate by the legislature and subsequently enumerated as a provision in the "new" Article 2. This "appropriate" standard should be based upon the results of a normative microeconomic neo-institutional analysis and should be implemented in concert with the other revisions currently being considered.

II. History and Purpose of the Statute of Frauds

It is revolting to have no better reason for a rule of law than that so it was laid down in the time of Henry IV. It is still more revolting if the grounds upon which it was laid down have vanished long since, and the rule simply persists from blind imitation of the past.

— Oliver Wendell Holmes, Jr.
The Path of the Law (1897)[37]

Any discussion of the legitimacy of a legal rule requires an examination of the principles upon which that rule was created and the objectives that the rule seeks to achieve. The appraisal should also include an analysis of the functions and justifications employed for facilitating those objectives. Viewed in its historical context, the Statute was created at a time when juries deliberating on the "truth," after hearing conflicting testimony, were expected to arrive at an equitable conclusion based on their subjective understanding of the facts presented.[38] It was designed to bar any attempt to perpetrate a fraud on the court.[39] Decisions were made without the benefit of either expert testimony or outside evidence.[40] In enacting this measure, Parliament's overarching aim was to prevent the imposition of contractual obligations on persons

37 Oliver Wendell Holmes, Jr., *The Path of the Law*, 10 Harv. L. Rev. 457, 469 (1897).
38 *See* Cunningham, *supra* note 6, at 361.
39 *See* John E. Murray, Jr., Murray on Contracts 641 (1974).
40 *See* Dawson, *supra* note 4, at 957.

without their knowledge or consent.[41] Parliament constrained broad jury discretion by a requirement that some written record of a contract must exist to support a claim against a party being charged.[42] The writing requirement was a means of guarding against fraud perpetrated through perjured testimony, as well as a safeguard for the gullible and the unwary.[43]

Under these circumstances, the Statute frequently proved to be a justifiable, effective weapon against perjury and fraud.[44] It facilitated the goal of preventing fraudulent claims from being enforced and protected individuals against questionable or nonexistent oral agreements.[45] The means of attaining this objective have historically been achieved by the requirement of evidence that could physically document the formation of a contract between two parties.[46] Because a primary goal of the Statute of Frauds was to promote the use of "writings" when a contract was created, such "writings" could subsequently serve as a record of specific terms agreed upon.[47] This record was used as evidence of a party's objectives and intentions, in addition to serving as a deterrent to fraudulent claims based on alleged oral agreements.[48]

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41 *See* ARTHUR L. CORBIN, 2 CORBIN ON CONTRACTS § 275 (1950).

42 *See* Cunningham, *supra* note 6, at 361; DAWSON, *supra* note 4, at 957.

43 *See* CORBIN, *supra* note 41, § 275 ("The purpose of [the Statute] was to prevent the foisting of an obligation of specified classes by perjury upon one who had never assented to assume it."). Corbin notes that the combination of the authentication and the Statute of Frauds writing requirements serves to limit the perpetration of fraud and the occurrence of mistake.

44 *But see* PEB Study Group, Preliminary Report, *in* 1994 U.C.C. DISCUSSION DRAFT, *supra* note 8, at 51 (stating that "§ 2-201 has generated considerable litigation without evidence that perjury on the making or terms of a contract for sale has been deterred. In fact, some argue that the [S]tatute of [F]rauds stimulates rather than deters fraud.").

45 Pitek v. McGuire, 184 P.2d 647 (N.M. 1947) (alleged oral contract invalid under Statute); Taber v. Pettus Oil & Ref. Co., 162 S.W.2d 959 (Tex. Ct. App. 1942) (vague written contract invalid under Statute); Scheck v. Francis, 260 N.E.2d 493 (N.Y. 1970) (writing signed by any one party invalid).

46 *See generally* SAMUEL WILLISTON, WILLISTON ON CONTRACTS § 448 (3d ed. 1960).

47 Harry Rubin & Sons, Inc. v. Consolidated Pipe Co. of Am., 153 A.2d 472 (Pa. 1959) (supporting the proposition that one purpose of U.C.C. section 2-201 is to provide written evidence establishing the validity of oral evidence); Handlos v. Missman, 97 N.W.2d 419, 422 (Wis. 1959) (stating that "[t]he question is . . . whether there is a sufficient written memorandum which proves or tends to prove the existence of the oral contract . . . . The memorandum is required not to make a contract but to evidence in writing a contract which has been made.").

48 *See supra* note 46.

III. The Consequences of Moving Beyond Paper

What hath God wrought?

— Samuel F.B. Morse
First Message Transmitted
over the Telegraph Machine
May 24, 1844[49]

The problems highlighted by the requirements of a "writing" and a "signature" in the context of electronic contracting is only a recent indication of a fundamental flaw within the Statute of Frauds. A rule requiring "signed writings" and conventional "written agreements" as evidence of a party's intention is flawed when that evidence is based on ambiguous definitions.[50] The result is imprecise terminology subject to a variety of interpretations.

The Statute historically has presented problems for other technologically advanced modes of contracting as well. The emergence of the telegraph machine in the mid-nineteenth century[51] was one of the first significant challenges to established notions of acceptable media for contract formation.[52] The telegraph's creation resulted in a commercial revolution[53] that facilitated the advent of

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49 The World Almanac and Book of Facts 500 (1996).

50 *See* Wright, *supra* note 9, at 274.

51 The telegraph is considered by many to be the forefather of technological development in the field of advanced communications and commercial practice.

> Rapid development of telegraph systems came with the discovery that electric impulses could be used to transmit signals along a wire . . . . [Samuel] Morse developed the simple operator key, something like a single typewriter key, which when depressed completed an electric circuit and sent a signal to a distant receiver, which was originally a device that embossed a series of dots and dashes on a paper roll. About 1856, a sounding key was developed; skilled operators could listen to what the key "said" and write the message directly, or, after 1878, type them. Telegraph systems quickly spread across Europe and the United States, and soon resulted in mergers and associations such as the Western Union Telegraph Company in 1856.

11 The New Encyclopedia Britannica 611 (15th ed. 1986).

52 *See* Lester Lindley, The Impact of the Telegraph on Contract Law 28 (1990) (noting that no earlier format for transmitting information had forced lawyers to "wrestle" as much with established contractual common law traditions as the "implications of erroneous messages"); Wann v. Western Union Tel. Co., 37 Mo. 472 (1866) (a garbled telegraph transmission did not constitute breach of contract nor invoke third party liability, despite $1,000 resulting loss); Primrose v. Western Union Tel. Co, 154 U.S. 1 (1894) (in finding for the defendant, the Court held that Western Union's mistaken delivery of a message, which caused a loss of $20,000 for the plaintiff, neither constituted third party liability nor breach of contract. Western Union had erroneously substituted the word "bay" for "buy" subsequently transmitting the mistaken order to buy purchases from a supplier rather than stop them); *see also* Tyler, Ullman & Co. v. Western Union Tel. Co., 60 Ill. 421, 440 (1871); Parks v. Alta Cal. Tel. Co., 13 Cal. 422 (1859).

53 *See* Alfred D. Chandler, Jr., The Visible Hand: The Managerial Revolution in American History (1977). The author identifies the telegraph as a catalyst for transforming the nation's pre-1840 traditional economy into a modern industrial one. He considers it central to the evolution of commercial business industry in the United States. *See id.*; *see also* Richard B. Duboff, *The Telegraph and the Structure of Markets in the United States 1845-*

telegraphed contracts. Hence, certain rules concerning legal issues were no longer adequate in the contract-telegraphy environment.[54]

A similar situation occurred subsequently with the invention and use of telefacsimile machines.[55] The fax machine's incorporation into the commercial environment of the 1980s also created a type of "business revolution"[56] that generated comparable problems concerning long established rules of contract law.[57]

The challenges concerning current technology are analogous to those caused by the development of the telegraph and, a century

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1890, *in* 8 RES. ECON. HIST. 253-77 (1983); Ralph W. Hidy & Arthur M. Johnson, *The Speed of Business Communications, 1883*, 38 BUS. HIST. REV. 370 (1964) (crediting the telegraph's impact on nineteenth century business as "revolutionary in its magnitude").

Other prominent scholars have concluded that the advent of telegraphy promoted the "creation of commodity exchanges, futures trading, and a national securities market . . . [which facilitated] a marketing revolution . . . ." LINDLEY, *supra* note 52, at 6.

54 Two late nineteenth-century writers observed: "It is becoming more and more important that the rules governing negotiations made by telegraph should be clearly defined and settled, as contracts thus made are constantly increasing in number and magnitude." WILLIAM L. SCOTT & MILTON P. JARNAGIN, A TREATISE UPON THE LAW OF TELEGRAPHS § 296 (1868); *see* LINDLEY, *supra* note 52, at 58, noting that:

> A Louisiana district court decided the first telegraph liability case in 1852. Edward Shields ordered oats at "fifty-six," but a garbled message arrived at his supplier offering to buy at "sixty-six." Shields suffered a $164 loss and sued for damages, but the court awarded him only $3.50, the cost of his telegram. The court used common carrier law as its starting point, but concluded that dissimilarities between transmitting electrical pulses and tangible goods outweighed any similarities. . . . Consequently, the court declared that it was "unreasonable to apply the doctrine which applies to common carriers to a case like the present" . . . . The court also found that rate-making differences further distinguished telegraphy from common carriage. . . . In sum, common carrier law helped only in understanding what telegraph law could not be; it offered no positive contributions for creating legal standards for the new communications industry.

55 Telefacsimile machines, more commonly known as "fax machines," are devices invented in the 1940s that facilitate a form of electronic transmission technology. Fax machines are communication mechanisms which permit the transmission of data ranging from print to still photographs. They are simple to operate. A user places a document into a feed tray, dials the recipient's fax number, and presses a button. Transmission is facilitated via telephone lines with the transmitted information taking the form of digital code. When it has reached the intended destination, the code is converted through a scanner and results in an exact copy of the original document. *See* David A. Sokasits, Note, *The Long Arm of the Fax: Service of Process Using Fax Machines*, 16 RUTGERS COMPUTER & TECH. L.J. 531 (1990).

56 *See* Anthony Lewis, *Personal Computers: The Facts on the Fax*, N.Y. TIMES, Jan. 10, 1989, at C6 ("[As of December 1988] [t]here [was] an estimated 1.8 million fax machines in the United States, and more than 800,000 of them were sold [in 1988 alone].").

57 *See* American Multimedia v. Dalton Packaging, 540 N.Y.S.2d 410 (N.Y. Sup. Ct. 1989) (binding a seller to an arbitration clause on the reverse side of a document sent by fax, although the reverse side was not sent, where the front side mentioned the arbitration clause and the parties had an ongoing course of business); *supra* note 13; *see also* Beatty v. First Exploration Fund 1987 & Co., 25 B.C.L.R.2d 377 (1988), *cited in* WRIGHT, *supra* note 9, at 288 (in holding that telefacsimile printouts constituted both written and signed documents, the court failed to examine "the scientific reliability of fax technology, and it rejected arguments that the use of faxes over conventional documents increases the risk of fraud and creates uncertainty").

later, the telefacsimile. The much-publicized electronic "Information Superhighway" is a relatively new, complex information infrastructure, composed of a variety of communication and informational technologies that span the world. Electronic communications networks,[58] such as the Internet (one type of electronic messaging system ("EMS")),[59] and electronic data interchange systems ("EDI"),[60] are the blacktop of this "superhighway." These systems have significantly transformed the dynamics of modern commercial transactions. Such electronically based transfer technologies frequently serve as platforms on which commercial transactions take place.[61]

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[58] This Note divides Electronic Communication Networks into two separate categories: Electronic Messaging Systems ("EMS") and Electronic Data Interchange Systems ("EDI"). For the purposes of this Note, Electronic Communication Networks are broadly defined as devices which facilitate the transmission and communication of data and information electronically through the use of computers.

EMS is defined as that subset of Electronic Communication Networks which communicate information in the form of ordinary text between *people*. This information is transmitted electronically, via the use of computers linked together through networks. The individual users are generally the primary operators of the system.

EDI is liberally defined as encompassing secondary devices that transmit computer coded data between two or more *computers*. In contrast to EMS, human intervention plays only a tangential role.

While both EDI and EMS are distinguishable due to their manners of operation, they are similar in that both transmission systems serve as common platforms in the commercial environment for the creation of contracts that facilitate business transactions. Furthermore, both technologies raise analogous legal issues concerning specific formal requirements of contract formation and, in doing so, vigorously challenge particular tenets of existing law. *See* Electronic Messaging, A.B.A. Publ. No. 507-0210 (1988).

[59] The Internet is a vast, global conglomeration of computer networks originally created by the United States Defense Department to form a nuclear attack-proof communications system. Today, with a total of over thirty million users and a composite of over 40,000 computer networks, the Internet is a formidable technology. Its phenomenally widespread use has infiltrated and transformed many sectors of modern society, from the private to the commercial. "Going on-line" may have been a novelty in the last decade, but it will become an imperative in the next millennium. *See* Verity & Hof, *supra* note 32, at 88 ("[W]ith all the innovation, fresh thinking, and entrepreneurial zeal concentrated on the Net, it seems clear that this nebulous but vast setup will become one of the busiest business districts the world has ever known."); Vic Sussman, *The Internet Will Gain Popularity, Predictions*, U.S. NEWS & WORLD REP., Dec. 26, 1994, at 76.

[60] Electronic Data Interchange is a common medium for transmission of messages made up of alpha-numeric characters. Unlike the Internet and other EMS, this communication occurs without human interaction and permits the exchange of information electronically within seconds.

EDI was introduced in the 1970s as a vehicle for the exchange of standardized data (such as, invoices, remittance advices, purchase orders, and shipping notices) between computers in an electronic format. Today, this device facilitates purchases and sale transactions with minimal human intervention at such a rapid pace and in such an efficient manner that, like the Internet, it too has experienced extraordinary growth. This proliferation is expected to continue within the commercial sector. *See ABA Report and Model Trading Partner Agreement, supra* note 17, at 1649.

[61] *See* A.B.A., Electronic Messaging, A Report of the Ad Hoc Subcommittee on Scope of the U.C.C. 5 (1988) (Electronic Messaging Task Force) ("Electronic messaging systems and electronic data interchange are changing the way businesses negotiate and enter into contracts. These changes require a reexamination of fundamental contract principles.")

Both the Internet and EDI permit the split-second exchange of information and dramatically reduce the expenses and delays normally associated with traditional modes of contracting. Both processes are extraordinarily efficient: they increase productivity, diminish processing and administrative costs, and help keep the United States commercially competitive.[62] However, just as the creation of the telegraph and fax machines significantly challenged existing tenets of contract law,[63] electronic communication networks are pushing certain facets of current law to the brink of obsolescence.[64]

[hereinafter Ad Hoc Report]; *see also* Andrews, *supra* note 32, at D2; Sussman, *supra* note 59, at 76; Nimmer, *supra* note 23, at 13-14.

[62] *See* Robert W. McKeon, Jr., *Electronic Data Interchange: Uses and Legal Aspects in the Commercial Arena*, 12 J. MARSHALL J. COMPUTER & INFO. L. 511, 511 n.3 (1994).

[63] *See supra* notes 51-57 and accompanying text.

[64] For example, cyberspace has raised substantial questions in copyright law and the First Amendment. First, for copyright law, see KATSH, *supra* note 20, at 215, stating:

> Copyright is probably the focus of more attention and concern than any other area of law touched by the new technologies. Over 1,200 people on the Internet belong to a group called CNI-Copyright, asking questions and exchanging information on a daily basis about whether particular uses of the new media violate current copyright doctrine or not.

In September 1995, the Clinton Administration's Working Group on Intellectual Property Rights released the final version of its long awaited report, entitled the Intellectual Property and the National Information Infrastructure (White Paper), setting forth recommendations on changes to current intellectual property laws. INTELLECTUAL PROPERTY AND THE NATIONAL INFORMATION INFRASTRUCTURE, THE REPORT OF THE WORKING GROUP ON INTELLECTUAL PROPERTY RIGHTS (Sept. 1995) [hereinafter WHITE PAPER] (http://www.nlc-bnc.ca/documents/infopol/copyright/ipnii.txt). The White Paper does not appear to significantly alter any of the fundamental aspects or goals of copyright law. It does, however, modify certain facets of current copyright law to better accommodate works created on, and available over, the Internet and the general emerging electronic environment. *See* David Goldberg & Robert J. Bernstein, *The White Paper's Proposed Amendments to the Act*, N.Y.L.J., Nov. 17, 1995, at 3; Arnold P. Lutzker, *Commerce Department's White Paper on National and Global Information Infrastructure, Executive Summary For the Library and Educational Community* (Sept. 20, 1995) (available on the Internet at http://www.nlc-bnc/documents/infopol/copyright/ipwp-rev.txt) ; Pamela Samuelson & Robert J. Glushko, *Electronic Communications and Legal Change: Intellectual Property Rights for Digital Library and Hypertext Publishing Systems*, 6 HARV. J.L. & TECH. 237 (1993); Alan J. Hartnick, *Law Changes Necessary for Info Superhighway*, N.Y.L.J., June 9, 1995, at 5; *see also* Playboy Enters., Inc. v. Frena, 839 F. Supp. 1552 (M.D. Fla. 1993) (illustrating the difficulty of protecting proprietary rights on the Net); Religious Technology Center v. Netcom On-line Communications Serv., 907 F. Supp. 1361 (N.D. Cal. 1995) (refusing to hold an on-line service liable for direct copyright infringement for the connection between it and the electronic bulletin board where the copyrighted material posted was too attenuated). In addition, licensing issues concerning the right of an owner of copyright to license all or part of a motion picture for use in other media has forced courts to delineate new standards concerning the licensing of information. *See, e.g.*, Rey v. Lafferty, 990 F.2d 1379 (1st Cir. 1993) (determining that because copyright grant contained no specific rights in either undeveloped technologies or future methods of exhibition, such copyright protection could not be relied upon for those new mediums); *see also* Barbara J. Shulman, *Old Materials, New Issues: Licensing for Interactive Media*, N.Y.L.J., Feb. 9, 1994, at 1.

Second, traditional First Amendment rights and the laws instituted to protect them are being challenged by the Internet.

> A period of significant change in First Amendment press doctrines is about to occur, driven by a revolution in communications technology. Although the

> free press clause of the First Amendment—as it stands now—primarily protects the traditional print and broadcast media, . . . technological changes will force a new interpretation of the amendment to include a broader definition of the press.

PATRICK M. GARRY, THE NEW MEDIA AND THE FIRST AMENDMENT Slip Cover (1994). In addition, a number of recent libel suits pertaining to the electronic environment are beginning to shed light on the issues of unfettered expression on the Internet and whether an on-line service provider can be held liable for the actions of its customers.

> By posing the issue of whether a commercial on-line service is liable for allowing third parties to post defamatory remarks on an electronic bulletin board, [these suits] could determine whether such services are primarily passive conduits of information with little liability, or are more akin to traditional publishers of information, such as newspapers and broadcasters.

Matthew Goldstein, *Prodigy Case May Solve Troubling Liability Puzzle, The $200 Million Question: Are Commercial Online Services Akin to Active Publishers or Passive Conduits?*, NAT'L L.J., Dec. 19, 1994, at B1.

> There is a view that on-line service providers, such as bulletin board operators, should be exempt from liability or given a higher standard for liability, such as imposing liability only in those cases where infringement was willful and repeated or where it was proven that the service provider had both "actual knowledge" of the infringing activity and the 'ability and authority' to terminate such activity.

Bruce A. Lehman, *On-Line Service Provider Liability*, *in* WHITE PAPER, *supra*. In one such case, Cubby, Inc. v. CompuServe, Inc., 776 F. Supp. 135 (S.D.N.Y. 1991), the court held that libelous material uploaded to a bulletin board system by a subscriber did not subject the BBS operator to damages for libel. *See* Michael Smythe & Nick Braithwaite, *First U.K. Bulletin Board Defamation Suit Brought*, NAT'L L.J., Sept. 19, 1994, at C10, stating:

> Legal reality has intruded upon the world of the Internet. In the United States, a journalist, Brock Meeks, is being sued by Suarez Corp. Industries for comments he posted on the Internet. The phenomenon of bulletin board defamation may have the effect of sidelining the types of protections provided under the First Amendment to the U.S. Constitution.

In relation to the use of obscenity on the Internet, the American Civil Liberties Union recently filed an *amicus curiae* brief in what is believed to be the first case involving the cross-country conviction of a computer bulletin board operator. United States v. Thomas 74 F.3d 701 (6th Cir. 1996). In filing its brief, the ACLU alleged that "[u]ntil now, computer networks have been faithful to the values of the First Amendment. They have fostered, encouraged and even nurtured the robust exchange of ideas. In this case the government seeks to use a criminal law never intended to apply to computer communications, to put a brake on that development, to stifle the explosive creativity and breadth of expression occurring on computer networks."). *See* ACLU News Release (Apr. 17, 1995) (available on the Internet at ftp://ftp.pipeline.com/aclu).

In the context of criminal prosecution for pornography, traditional legal tenets also are being challenged. *See, e.g.*, Laurie Bennet, *Arrests Spark Resentment Across Internet*, DET. FREE PRESS, Feb. 27, 1995, at 1A, stating:

> The Internet, as its name indicates, crosses national boundaries. If pornography originates in Europe and passes through American computers on its way to Australia, which country has jurisdiction? And how do officials handle the wide variations in criminal and civil law from one nation to the next? "There's a whole series of questions," said Roger Busby of the Federal Law Enforcement Training Center. "Every new case is going to break new ground."

See Aaron Zitner, *A Byte in the Law of Copyright; Libel and Obscenity Statutes Stretch to Keep Up on the Electronic Frontier*, BOSTON GLOBE, Jan. 15, 1995, at Bus. 33 (claiming "as books become bytes, pornography becomes packets of electronic data and as more people shout at each other with their keyboards, the law is under pressure to keep up").

Finally, controversy concerning advertising on Internet "bulletin boards" has led to the initiation of moves to institute novel legal regulations concerning this practice. *See* Phillip Elmer-Dewitt, *Battle for the Soul of the Internet*, TIME, July 25, 1994, at 50.

IV. Searching for a Solution: Applying Section 2-201 in Cyberspace

[The] codification of contract law is a means to facilitate commercial practice and is characterized by an effort to identify, clarify and, where needed, validate patterns of contract practice to the extent that these are not inconsistent with modern social policy.

— Drafting Philosophy of U.C.C. Provisions on Commercial Contract Law[65]

A. *Introduction*

It is difficult to deny that the "Information Age" has brought uncertainty and instability to many laws governing contracts. Electronic networks have arguably displaced the conventional mode of contracting that the framers of the Statute of Frauds originally contemplated[66] and it is unclear whether an electronic contract will satisfy the Statute of Frauds. This reality, coupled with the traditional legitimate criticisms of section 2-201,[67] renders immediate modification of the doctrine a necessity. The advent of electronic contracting has forced the issue.[68] Now is the time to alter the Statute in such a way that its future application—irrespective of technological development—will not impede commercial growth.

Given the preceding arguments, an otherwise legitimate electronic agreement may be rendered unenforceable.[69] This would result from a perceived failure for electronic transactions to sustain, or be readily incorporated within, the requirements of a "signed writing" or a conventional "written agreement." When this

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65 1994 U.C.C. Discussion Draft, *supra* note 8.

66 *See* Meyer, *supra* note 32, at 85 (stating that "the practice of law traditionally has relied on the capture of agreement, verification and proof of the written word with an ink signature. Now, [with the advent of electronic commerce,] the move away from paper to information technology is, in turn, changing the way lawyers do business."); Ad Hoc Report, *supra* note 61, at 5 ("Electronic messaging systems and electronic data interchange are changing the way businesses negotiate and enter into contracts. These changes require a reexamination of fundamental contract principles.").

67 *See supra* notes 6 & 8.

68 "Just as in seventeenth and eighteenth century Great Britain and America a few tracts and acts set precedents for print by which we live today, so what we think and do today may frame the information system for a substantial period in the future." Ithiel de Sola Pool, Technologies of Freedom 10 (1983).

69 *See* Pike Indus., Inc. v. Middlebury Assocs., 398 A.2d 280, 282 (Vt. 1979); *see also* Benjamin Wright, The Law of Electronic Commerce, EDI, Fax, and E-mail: Technology, Proof, and Liability § 16.4.1, at 100 (Supp. 1994) (stating that in the context of electronic contracting "it is unrealistic to expect there ever to be absolute uniformity on the question of what constitutes a signed writing. More generally, it is unrealistic to expect there ever to be absolute uniformity on the question of what constitutes an enforceable contract.").

occurs, no sufficient legal or business benefit exists[70] that justifies retaining the Statute in light of the costs and burdens it would manifest through unnecessary litigation, inefficient business practice, denial of enforcement of valid contracts, and general instability within the legal and commercial setting.

Critical to an examination of this proposal is an understanding that only sales contracts involving goods that have not yet been delivered are protected against fraud by Article 2.[71] There is no writing requirement for sales once merchandise has been properly delivered and accepted by a buyer. If goods have been transferred from one party to another, an enforceable contract is deemed to have been executed. Thus, because sales contracts for goods that have been delivered and accepted are not subject to the writing and signature requirement, the purpose of section 2-201 is already limited. Furthermore, given that current section 2-201 may also obstruct electronic contracts, a reasonable course of action is to employ means other than the Statute itself.[72]

B. *Proposed Alternatives*

The most significant solutions put forth thus far have been limited to either repeal[73] or retention-qualified-by-redefinition of[74]

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[70] These benefits include deterring fraud, preventing fraudulent practices, precluding enforcement of a questionable or non-existent oral agreement, enforcement of a legitimate oral contract despite the absence of written proof, and preventing parties from evading obligations intentionally incurred. *See infra* text accompanying notes 112-13.

[71] U.C.C. § 2-201(3)(c) (1991) provides in relevant part: "A contract which does not satisfy the requirements of subsection (1) but which is valid in other respects is enforceable . . . (c) with respect to goods for which payment has been made and accepted or which have been received and accepted (Sec. 2-606)."

[72] *See* 1994 U.C.C. DISCUSSION DRAFT, *supra* note 8, at 51 (explaining that "[i]n sales law, the [S]tatute of [F]rauds . . . serves a very limited purpose, applicable primarily to protecting against fraud in cases involving goods that have not yet been delivered. Reliance on litigation and evidence rules to prevent fraud makes sense in light of the fact that a [S]tatute of [F]rauds rule inhibits some modern transaction formats.").

[73] *See* UNIFORM COMMERCIAL CODE REVISED ARTICLE 2 § 2-201 (Discussion Draft Sept. 10, 1993) (recommending, for at least the second time, abolishment of the Statute of Frauds for sales transactions); Report of Subcommittee on Possible Elimination of Statute of Frauds Provision in Article 2, presented to the Uniform Commercial Code and Other Uniform Laws Committee of the Commercial Law League of America at the Midwestern District Regional Meeting in Chicago, Ill. (Apr. 20, 1980); Caroline N. Bruckel, *The Weed and the Web: Section 2-201's Corruption of the U.C.C.'s Substantive Provisions—The Quantity Problem*, 1983 U. ILL. L. REV. 811, 815 (stating that the "repeal of section 2-201 is the best and wisest course to deal with the problems the Statute of Frauds poses."); Francis M. Burdick, *A Statute for Promoting Fraud*, 16 COLUM. L. REV. 273 (1916); Cunningham, *supra* note 6.

[74] *See, e.g., Comments on The Revision of Article 2 of the Uniform Commercial Code*, submitted by Members of the Working Group on Electronic Writing & Notices, Subcommittee on Electronic Commercial Practices, U.C.C. Committee, Section of Business Law, American Bar Association, to The Study Group on the Revision of Article 2 (Sept. 13, 1990) (on file with the Drafting Committee) [hereinafter 1990 Working Group Comments] (proposing that the term "written" be redefined to include "any statement which is, or concurrently

the Statute. Both of these suggestions, however, are fundamentally flawed.

1. Repealing Repeal

The Statute can prevent—and for various circumstances arising outside the scope of electronic-based contracts has prevented—the occurrence of fraudulent transactions and unfounded claims.[75] Initiating an all-encompassing repeal of the Statute would effectively dismiss the benefits section 2-201 arguably provides for particular transactions.[76] As much of an obstacle as the Statute poses for some transactions (including but not limited to electronic), when section 2-201 prevents fraudulent practices and unfounded claims, its value becomes indisputable.[77]

One argument disfavoring blanket repeal emanates from the realization that human memory can frequently be faulty and selective; unsubstantiated, subjective recollections of oral conversations do not readily serve as persuasive evidence of a contract's terms or existence.[78] Furthermore, common law experience indicates that in many circumstances the Statute of Frauds has provided reliable evidence that a contract was formed.[79] In this capacity, it serves as a potent antidote to fraud and perjury.

A second argument opposing universal repeal derives from the concern that flat-out rescission will negatively affect the merchants' exception under section 2-201(2). Under the merchants' exception, legal effect is granted if a "receiving merchant" fails to respond to a written confirmation within ten days.[80] Failure to respond consequently enjoins the receiving merchant from using a Statute of Frauds defense to rebut an allegation that a binding oral agreement had been established.[81] Thus, in circumstances where a written confirmation is utilized during the course of a transaction, that confirming memorandum

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with its transmission, becomes printed, typewritten, magnetically or optically recorded or otherwise reduced to tangible form").

75 *See supra* note 45.

76 *See supra* note 70.

77 Contracts for the sale of any kind of interest in land as well as agreements made by executors and administrators to satisfy a debt owed by a decedent are just two examples where the Statute of Frauds proves its value.

78 *See* Boyd v. Stone, 11 Mass. 342, 345 (1814) (explaining that the Statute of Frauds was enacted because Parliament "found [it] inconvenient to depend upon the memory or the integrity of witnesses . . .").

79 *See* Joseph M. Perillo, *The Statute of Frauds in the Light of the Functions and Dysfunctions of Form*, 43 FORDHAM L. REV. 39, 70-71 (1974).

80 *See* John C. Ward & Kim J. Dockstader, *Placing Article 2's Statute of Frauds in its Proper Perspective*, 27 IDAHO L. REV. 507, 516-18 (1990-1991).

81 *Id.* at 518.

can block a Statute of Frauds defense.[82] If section 2-201 were to be universally repealed, the practice of using a confirming memorandum in order to remove the Statute as a defense would no longer be an option. Furthermore, the merchants receiving the confirming memorandum could no longer enjoy the protection previously afforded them by section 2-201.[83]

A third argument against complete rescission stems from the commercial community's traditionally strong resistance to repeal; the instinct to oppose suggestions that could eliminate objective evidence of what constitutes a contract remains deeply rooted.[84] The reason for the legal and business communities' aversion is not difficult to understand: fraudulent practices are likely to occur in the business environment. Thus, any proposal to eradicate a doctrine whose purpose is to prevent fraud will almost certainly be met with resistance. This response is founded in the security and assurance the business community finds in the Statute's formality and tradition. After all, when commercial disputes must be resolved, written evidence presented to a trier of fact can at least provide threshold protection to a litigant.[85] Moreover, in many instances, the trier of fact will view written evidence as dispositive.[86]

Finally, the Statute's core value is evident in its capacity to protect against enforcing questionable or nonexistent oral agreements and preventing a party from evading an obligation deliberately incurred. Thus, section 2-201's role as a deterrent to fraud may, in and of itself, justify its retention in certain circumstances.[87] Discarding the Statute altogether given the worthwhile benefits it peri-

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82 *Id.*

83 *Id.*

84 Telephone Interview with Bernard Bergreen, Head Counsel for The Howard Gilman Foundation and Chief Financial Officer, Gilman Paper Company (Jan. 14, 1995).

85 *See* Ward & Dockstader, *supra* note 80, at 507.

86 *See id.* at 509.

87 *But see Article 2 Appraisal, supra* note 17, at 1033-34 (discussing the lack of empirical evidence about whether a Statute of Frauds actually prevents fraud, and concluding that "there is no persuasive evidence either that the [S]tatute of [F]rauds has prevented fraud in the proof of the making of a contract or that its presence has channeled behavior toward more reliable forms of record keeping.").

This author takes issue with this aspect of the Subcommittee's conclusion. One should assume that the very presence of a Statute of Frauds serves as a powerful deterrent to fraud in contract formation and record keeping; reasonable parties will be more circumspect in their behavior knowing that legally enforceable, statutory provisions exist to guard against fraudulent practices. The "persuasive evidence" that the Subcommittee seeks is not objectively measurable; how can one accurately quantify damage which has not yet occurred? The Subcommittee's conclusion presupposes that it is possible to prove whether a party may have been more inclined to contract unlawfully had the Statute of Frauds *not* existed as a deterrent. Like most prophylactic legal codes, this statute serves to discourage those contemplating fraud.

odically provides[88] is draconian and can only result in a "reform" as inefficient as the original problem.

2. The Limitations of Redefinition

The proposal to redefine broadly certain provisions of the Statute of Frauds[89] to rectify its current imperfections is also shortsighted and inadequate.[90] First, it is highly likely that those newly defined provisions would become obsolete before the ink used to print them is dry. It is not feasible to delineate practical contract regulations that will remain consistent through any number of situations that may arise; circumstances vary too widely and defined terms are too inherently pliant. The redefinition alternative will undoubtedly create the need to modify the law each time a new technology emerges that challenges an existing definition.[91] To redefine words such as "writing" or "signature" so that contract rules will clearly accommodate electronic communications would require continuous monitoring of all novel technology. These terms would need to evolve consistently with any significant technological developments.

Second, generalizing statutory language in sufficiently broad terms to encompass emerging technologies will burden courts by

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[88] *See* 1994 U.C.C. DISCUSSION DRAFT, *supra* note 8, at 51 ("The arguments against repeal of the [S]tatute of [F]rauds include the idea that the fraudulent practices and unfounded claims that this rule prevents justify the cost of what might be regarded as no more than a statutory codification of a desirable business practice."); *see also* Ward & Dockstader, *supra* note 80, at 523 (stating that the Statute's benefit outweighs any cost because the Statute of Frauds "deals with old problems in new ways by preserving the integrity and importance of written documents in commercial disputes, while providing answers to historical criticisms of prior statutes").

[89] For example, the Working Group on Electronic Writings and Notices has suggested the following as a possible "redefinition": " 'Written' or 'writing' includes any statement which is, or concurrently with its transmission, becomes printed, typewritten, magnetically or optically recorded or otherwise reduced to tangible form." 1990 Working Group Comments, *supra* note 74.

[90] To act as if a [S]tatute from the 1950's can simply be touched up and left to govern transactions into the next century is to essentially ignore the sea of change that has occurred in how we, as a country and as individuals, do business as well as the commercial value that new forms of business represent.

See Nimmer, *supra* note 23, at 1402.

[91] For example, video conferencing is a technology that employs communication bandwidth to transmit real-time audio and video images. This technology will increasingly become available within the next few years and is expected to create new and efficient ways of doing business. If two parties using a video conferencing system electronically contract, how will the communication be legally defined for purposes of authentication? Will the transmission fit into a conventional definition or will it fail to sustain any Statute of Frauds requirements? Is the communication simply an oral contract or is it a hybrid transaction combining aspects of both an oral agreement and a transaction formed via an electronic messaging system? What will constitute memorialization of this transaction? Will yet another definition encompassing verbal/visual electronic contracts be required to force fit this new technology within yet another revised Article 2?

demanding precise definitional interpretations in order to settle disputes.[92] Features of electronic media simply may not be adaptable to meet the Statute of Frauds's requirements, no matter how they are redefined, stretched, or amended.[93] Finally, the Statute has proved to be frail and inadequate in a variety of situations that arise outside the scope of electronic contracting and calls for its repeal periodically arise.[94] The British parliament repealed all but two provisions of the original statute in 1954,[95] apparently with little objection.[96] In addition, Article 11 of the United Nations Convention of Contracts for the International Sale of Goods excluded any Statute of Frauds requirement.[97] So many exceptions to section 2-201's enforcement exist that for many transactions the Statute has become irrelevant.[98] Because the requirements of section 2-201 can be bent so easily it has been repeatedly suggested that "repeal of the [S]tatute of [F]rauds would eliminate all of the time, work, and expense involved in trying to avoid the bar of the [S]tatute of [F]rauds by trying to fit [it] within one of the statutory or judicial exceptions."[99] When exceptions to a rule's application become so broad and numerous that even its deterrent effect is questionable, the rule becomes impotent. If, for example, the "signature" requirement does not actually require a "signature," why insist on maintaining this posture? If a "writing" does not have to be "written," why insist on a writing requirement?

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92 *See* WRIGHT, *supra* note 9, § 16.7.4.

93 *See* Raymond T. Nimmer & Patricia Krauthouse, *Electronic Commerce: New Paradigms in Information Law*, 31 IDAHO L. REV. 937, 938-39 (1995), stating:

> Some might favor an approach to development of modern commercial law that requires fitting electronic practice and the law that governs it into these old paradigms developed for paper, hard goods and the other traditional venues around which commercial law was organized. But fitting new models into old forms takes too much from both. It limits the technology and technological evolution by forcing its conformance to frameworks developed to suit old technology or, failing that conformance, by offering an unsettled and perhaps inappropriate legal framework of outcomes respecting that technological practice. It also alters the old paradigms in ways that adversely affect their function even in the fields of their initial application. . . . The appropriate approach lies not in a force fit to older technology and legal traditions, but in a molding of modern concepts suited to the new technology and the new business enterprise.

94 *See supra* notes 6 & 8.

95 2 & 3 Eliz. 2, ch. 34 (1954).

96 *See* C. Grunfeld, *Law Reform (Enforcement of Contracts) Act, 1954*, 17 MOD. L. REV. 451 (1954).

97 Final Act of the United Nations Conference on Contracts for the International Sale of Goods, 19 I.L.M. 668, 674 (1980).

98 *See* Cunningham, *supra* note 6, at 362-63.

99 *Id.* at 363.

3. A Compromise: Using a Neo-Institutional Theory of Legal Rule Formulation to Implement a Cost/Benefit Analysis

Reorganizing section 2-201 based upon a flexible and dynamic neo-institutional cost/benefit analysis, to be conducted and delineated by the drafters of Article 2[100] would provide the most efficient method for deciding whether to apply or disregard the Statute.[101] Neo-institutional rule formulation concerns the effects of transaction costs on the legal and economic environment in which they occur.[102] It is derived, in some respects, from the economic paradigm of Pareto efficiency.[103] However, whereas traditional Pareto efficiency emphasizes the appropriate allocation of a resource in order to maximize efficiency, the neo-institutional rule formulation approach emphasizes *procedural efficiency* to combat "uncertainty and change in the legal and economic environment."[104]

From an economic perspective, the reduction of transaction costs is a primary goal of contract law.[105] As transaction costs are reduced and conditions are stabilized, parties become more confident and are subsequently more willing to enter into an agreement.[106] The result is an increase in the overall number of transactions safely entered into by society. More transactions can thus be carried out with greater efficiency and benefits for society at large.[107]

Under a neo-institutional analysis, transaction costs in the context of procedural "contract-formation" regulations result from factors such as ambiguity, instability, legal uncertainty, and a variety of extrinsic marketplace forces.[108] The result of these components has been identified as "opportunism."[109] In the context of oppor-

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100 As described in detail *infra* part IV.4, a legislative determination would be made for all transactions that fall within the scope of Article 2 prior to individual case application. The result of each determination would subsequently take the form of a "new" Article 2 provision. That provision would specify whether the Statute of Frauds applies to the type of transaction in question.

101 *Cf. ABA Report and Model Trading Partner Agreement*, *supra* note 17, at 1714 (stating that "[t]he commercial use of EDI [and other electronic communication systems] has emphasized the need for existing laws to embrace principles of flexibility sufficient to accommodate the advances of technology on a continuing basis").

102 *See* HIRSCH, *supra* note 25, at 9.

103 *Id.*

104 *Id.*

105 *Id.* at 18.

106 *Id.*

107 *Id.*

108 Forces such as competition, self-dealing, dishonesty, and inefficient business practices.

109 Opportunism is defined as "efforts to realize individual gains through lack of candor or honesty in transactions and to the desirability of having 'governance structures' in the form of laws, arbitration procedures, and markets so as to reduce opportunism." O.E.

tunism, neo-institutional analysis seeks to eliminate the disparity that arises between parties and the transaction costs that are incurred when ambiguously drafted contract rules are used to govern contract formation. Thus, rather than pursuing a Pareto optimum concerned with maximizing allocative efficiency, neo-institutional analysis shifts the focus to procedural efficiency to combat legal uncertainty.

a. Neo-Institutionalism, Transactional Costs, and the Statute of Frauds

For the Statute of Frauds, transaction costs resulting from imperfect requirements and flawed procedural regulations manifest themselves in the form of 1) unnecessary litigation; 2) the prevention of a party from enforcing a valid contract; 3) inefficient business practice; 4) the instability created within the law due to a lack of legal certainty; 5) the instability created within the commercial setting due to a lack of legal certainty; and 6) the fact that Statute of Frauds rules are often circumvented by courts.[110]

The economic rationale for a flexible Statute of Frauds based upon a cost/benefit analysis is that efficient exchange is not promoted by applying a rule in circumstances where its faults are highlighted and where it consequently obstructs a particular transaction. Uniformly regulating transactions with an ambiguous and uncertain rule when specificity and certainty are required results in waste. Invalidating contracts that "fail" to sustain an ambiguous requirement—for example a contract formed via the Internet that fails to constitute a sufficient writing—may encourage breach, unfair dealing, and dishonesty. Moreover, the stability of contract law is undermined and general confidence in the reliability of business agreements is diminished. The result is an overall decrease in the willingness of parties to engage in certain transactions.

On the other hand, a rule that is implemented when it serves in an efficient capacity—yet is discarded when it obstructs—maximizes resources, decreases instability and uncertainty, secures public confidence, and promotes procedural efficiency. The outcome is an overall reduction in transaction costs and the result is a value-

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Williamson et al., *Understanding the Employment Relation: The Analysis of Idiosyncratic Exchange*, 6 BELL J. ECON. 258 (1975).

110 1994 U.C.C. DISCUSSION DRAFT, *supra* note 8, at 51; *see* LON L. FULLER & MELVIN A. EISENBERG, BASIC CONTRACT LAW B-6 (4th ed. 1981) ("The best general guide to the judicial interpretation of the Statute of Frauds is to remember this simple truth: The courts have not favored the Statute. Generally, wherever its words leave any leeway (and often when they do not) the courts have restricted its meaning and found ways of making the oral agreement enforceable."). *See also* WRIGHT, *supra* note 9, at 274-94.

maximizing regulatory process. This process facilitates certain contractual agreements in a productive business environment.

The economic considerations of a neo-institutional cost/benefit analysis for the Statute can be further illustrated using a framework[111] devised by Werner Z. Hirsch, Professor of Economics at the University of California, Los Angeles and a leading authority in the field of law and economics. His model examines certain economic implications of contract law, and "focuses on the activities and costs associated with contract formation .... The intent is to clarify the transaction costs incurred by the seller and the buyer ...."[112]

According to Hirsch, A and B's electronic transaction goes through three stages: t_0 is when A has X goods and B has no goods but has money or earning capacity; t_1 is the contract formation stage, when both A and B incur certain transaction costs (FC). At the conclusion of FC, A no longer has X and has incurred FC_A, while B now has X and has incurred FC_B.

For the purposes of analyzing section 2-201, transaction costs during contract formation *(FC)* have six principle elements:

1. Costs of unnecessary litigation (a_1)
2. Costs of preventing a party from enforcing a valid contract (a_2)
3. Costs of inefficient business practice (a_3)
4. Costs of the instability created within the law due to a lack of legal certainty (a_4)
5. Costs of the instability created within the commercial setting due to a lack of legal certainty (a_5)
6. Costs incurred when Statute of Frauds regulations are circumvented by courts (a_6)

Thus, in keeping with the Hirsch Model:

$$FC = a_1 + a_2 + a_3 + a_4 + a_5 + a_6$$

The benefits of the Statute of Frauds can be similarly illustrated. For example, during the formation (t_1) and/or performance stages (t_2) of a transaction, certain benefits (*FPB*) may be produced. These benefits have five principle elements:

1. Benefits of deterring fraud (b_1)

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[111] *See* HIRSCH, *supra* note 25, at 146-50 (outlining author's cost/benefit equations and applying them to contractual relationships).

[112] *Id.* at 146.

2. Benefits of preventing fraudulent practices (b_2)
3. Benefits of precluding enforcement of a questionable or nonexistent oral agreement (b_3)
4. Benefits of enforcing certain valid and legitimate oral contracts despite the absence of written proof (b_4)
5. Benefits of preventing a party from evading an obligation intentionally incurred (b_5)

Thus,

$$FPB = b_1 + b_2 + b_3 + b_4 + b_5$$

With these conventions in mind, consider the following hypothetical: Assume that on December 1, seller A sets out to contract via an electronic messaging system with buyer B for *X* widgets. Party A transmits a price of $10,000 for the cost of *X* widgets due upon delivery of goods to B. Party B agrees to the price and delivery is set to take place on January 1. The transmissions contained no signatures per se (digitally encrypted or otherwise), were not subsequently reduced to paper (but may have been saved on a hard drive by at least one of the transactors), and contained no logo or other form of specific identification definitively indicating who the parties were (although e-mail addresses were used during transmission and are readily attainable). Sometime after December 1, but prior to January 1 and delivery, seller A finds another buyer who is willing to pay double what seller B agreed to pay for *X* widgets. On December 29, seller A informs buyer B that the contract is unenforceable under section 2-201 and that she does not intend to perform. B then brings an action at law for specific performance or, alternatively, damages for breach of the electronic contract. Party A pleads that the contract falls within the Statute of Frauds and thus is void and unenforceable because it fails to sustain the writing and signature requirements of section 2-201.

Arguments and counter-arguments can be offered as to 1) whether an action by B will be successful, and 2) whether the agreement satisfies the Statute. The absence of case law and the patent ambiguity within section 2-201, however, leaves the outcome in doubt. Nonetheless, an examination of the waste, cost, and inefficiency produced by the Statute is more constructive than any attempt to predict the result of litigation. After all, it is these impediments—*or the threat of them*—that, when burdensome enough, position the Statute as an obstacle to efficacious business practice and as a deterrent to parties contemplating the use of an electronic

agreement. Thus, whereas predicting the results of litigation can be speculative at best, examining the cost/benefit ratio produced by the Statute permits one to see when it is more practical to apply 2-201, or more efficient to disregard it.

The hypothetical above demonstrates a circumstance in which the Statute's transaction costs outweigh any benefit it attempts to confer[113] or, alternatively, $FC > FPB$.[114] Rather, these potential benefits are eclipsed and defeated by the Statute's "cost-inducing" requirements.

b. Neo-Institutionalism, Benefits, and the Statute of Frauds

As discussed previously,[115] circumstances do arise in which the Statute's benefits are significant and transaction costs are relatively trivial. For example, suppose A enters B's store, a shop specializing in the custom design and manufacturing of couch slipcovers, and selects material for a cover. A's couch is a rare, early eighteenth-century English piece with irregular contours. B measures the unique shape of the couch and takes note of both the color and pattern A requests. B states a price of $475 for the slipcover, to be made of the material selected by A and to be manufactured by B. A tells B to go ahead and make the slipcover and call him when it is complete. Sometime after B has cut the material and begun sewing it to create the cover, A informs B that he has changed his mind about the color and design of the cover, and in fact will keep the couch in its original state. He informs B that he will not purchase the cover and has no further need for B's services.

This hypothetical demonstrates a situation in which the Statute confers benefits that outweigh any transaction costs. This case is governed by section 2-201 of the Code, and B would most likely be able to enforce the oral contract. A not only acted unethically but further breached the agreement, and would be liable for damages under section 2-201 for rejecting the slipcover.[116] Under the Statute, even if the transaction involves a sale of goods, no writing is required if the value is below a specified figure. Section 2-201

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113 These benefits include deterring or preventing A or B from the subornation of fraud, and preventing the enforcement of a questionable or illegal contract.

114 In the "electronic-contracting" hypothetical, the six transactional costs created by the Statute outweighed the five benefits the Statute sought to achieve. Thus, if the value of a and b is placed at 1, $(FC = a^6) > (FPB = b^5)$.

115 *See supra* notes 75-87 and accompanying text.

116 It is important to note here that although this hypothetical is a hybrid encompassing both a sale of goods and a contract for services situation, rather than a pure sale of goods contract, section 2-201 still would be applicable. *See* DAWSON, *supra* note 4, at 967.

places the cut-off point at $500.[117]

In terms of a neo-institutional cost/benefit analysis, the slipcover hypothetical similarly illustrates circumstances where section 2-201's benefits eclipse any transaction costs that might have contaminated the agreement or, alternatively, *FC* < *FPB*. These benefits include: preventing A from engaging in fraudulent practices (b_2) (for example, the breaching of a valid, legitimate oral contract); benefits of enforcing a valid and legitimate oral contract despite the absence of written proof (b_4); benefits of preventing A from evading an obligation intentionally incurred (b_5); and finally, the benefits the Statute will serve in its role as a deterrent for future, comparable situations (b_1). No significant transaction costs are apparent. Thus, unlike an electronic contract, the analysis demonstrates that an oral agreement involving the sale of goods should be governed by section 2-201.

4. Practical Implementation

The conclusion of each cost/benefit analysis for the corresponding type of Article 2 transaction should take the shape of an additional, distinct provision and subsequently be drafted in "new" Article 2. Up to this point, the Statute of Frauds has been interpreted as a basic contract formation principle, applicable to all transactions within the scope of Article 2.[118] If, however, a neo-institutional cost/benefit analysis were to be implemented by the drafters of Article 2 as the first step in ascertaining whether the Statute of Frauds should be applicable to a transaction, then the Statute's role would change. Under these circumstances, the Statute would be recast from a general-core transactional principle, uniformly applicable to all Article 2 transactions, into a flexible, ancillary contract law rule,[119] pertinent only to specific types of transactions based on a neo-institutional theory of efficiency. This rule would be instituted only in situations where a cost/benefit analysis has deemed the cost of retaining the Statute less than the benefit that retention would render. When no sufficient benefit justifies the burden the Statute of Frauds imposes, selective repeal would be considered necessary. In either case, no longer does it assume the role of a "common core of contract theory and doctrine,"[120] automatically applied to all transactions within the Article 2 spectrum. Instead, it now becomes an appended provision

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117 *See supra* note 2.
118 *See* Nimmer, *supra* note 23, at 1387-88, 1390-91.
119 *See* NIMMER, *supra* note 34.
120 *See supra* note 34; *see also* Nimmer, *supra* note 23, at 1340.

that is either implemented or disregarded depending on the Drafters of Article 2's predetermined analysis. Hence, certain transactions will qualify for Statute of Frauds applicability while others will not.[121] Transactions formed through electronic means should be subject to this "selective repeal."

5. Preventing Fraud Without Section 2-201

a. Introduction

If the Statute of Frauds should fail a cost/benefit analysis for a particular type of transaction, what mechanisms may a party now rely on to expose and ensure against fraudulent practices? In many instances, parties can be expected to incorporate into agreements provisions that would protect their interests.[122] If those interests are compromised, doctrines such as promissory estoppel and quasi-contract can be invoked to insure performance and fair business practice. Furthermore, sensible business procedures (for example, thorough communication between parties, in-person meetings, follow-up telephone calls, and scrutinizing details of an agreement) will also guard against fraudulent business practice. For contracts formed in cyberspace, an additional option is available to prevent injustice and enforce an agreement in the absence of section 2-201.

b. Electronic Transactions and their Inherent Mechanisms

When Article 2 circumstances in electronic contracting render a repeal of the Statute sensible, internal features that are inherently part of the transaction and can successfully demonstrate an absence of fraud—such as Public-key Encryption[123]—should be

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[121] As a guiding proposition, the more complex a transaction is, the more likely it is to fail a cost/benefit analysis and thus fall outside the scope of section 2-201. For example, long term contracts, single item/high-value contracts, licensing contracts involving software and related intangibles, and consumer contracts in general are transactions likely to fail a cost/benefit analysis. Therefore, as in electronic transactions, these types of agreements should not be governed by the Statute of Frauds.

[122] For example, in seeking to protect their interests, many parties will incorporate a "severability clause" into a contract involving the sale of goods. A severability clause guarantees that in the event that any specific provision is determined to be unenforceable or invalid due to any particular circumstances (including but not limited to fraud), the entire contract will not fail. *See* 17A C.J.S. *Contracts* § 331, at 308 (1963) (failure of a distinct part of a severable contract does not void the remainder).

[123] Encryption is a process that packages data into "digital envelopes," thereby preventing the reading of an electronic message unless a specific encrypted code is employed to "open the envelope" and decipher the data. *See* John R. Thomas, *Legal Responses to Commercial Transactions Employing Novel Communications Media*, 90 MICH. L. REV. 1145, 1161 n.113 (1992), *citing* Vin McLellan, *Data Network to Use Code to Insure Privacy*, N.Y. TIMES, Mar. 21, 1989, at D5 ("Developers of the technology say the encryption will provide users with 'digital envelopes' that cannot be opened except by the addressee, and the contents will have

employed as an acceptable means for exposing fraudulent practices. These mechanisms should not be viewed as "new requirements." Instead, they are simply a means to ensure that fraudulent practices will not occur. Thus, contrary to arguments which have advocated the use of these mechanisms as vehicles for satisfying the formal requirements of the Statute of Frauds,[124] the mechanisms are simply used to prevent fraud from occurring. These features can avoid the costs of the requirements that the Statute may create and prevent ensuing fraud.[125]

Electronic transactions readily accommodate monitoring systems which deter the fraud and mistake the Statute was designed to combat. Thus, it becomes unnecessary to impose any additional formal requirements which may result in a "burdening" effect. By examining specific technical features intrinsic to electronic transactions, courts can avoid the impediments that the Statute of Frauds's requirements impose on electronic transactions. Furthermore, these mechanisms can successfully reveal (and deter) fraudulent practice and unfounded claims.[126]

'digital signatures' that cannot be forged."). The process of creating this code is a science called cryptography. Its primary goal is to secure the transmission of data. Cryptographic codes are based on mathematical formulas that transform readable text into encoded text through the use of algorithms. Algorithms transform plain text into ciphertext, and ciphertext into plain text. Once encrypted, data cannot be read again until the text is subsequently decrypted. The process of encryption and decryption is facilitated through the use of a "key." "A 'key' is a random bit string . . . that is used in conjunction with an algorithm . . . . Each different key causes the algorithm to work in a slightly different way. Only two people with the identical key can encrypt and decrypt messages . . . . [O]ne key cannot decrypt messages encrypted with a different key." BRUCE SCHNEIER, E-MAIL SECURITY: HOW TO KEEP YOUR ELECTRONIC MESSAGES PRIVATE 18 (1995).

124 *See generally* Fry, *supra* note 7; Thomas, *supra* note 123; McKeon, *supra* note 62; DiPaolo, *supra* note 12.

125 *But see* Gina Kolata, *100 Quadrillion Calculations Later, Eureka!*, N.Y. TIMES, Apr. 27, 1994, at A13, *cited in* Paul M. Shupack, *On Boundaries And Definitions: A Commentary On Dean Baird*, 80 VA. L. REV. 2273, 2280 (1994):

> An international effort to crack a tough mathematical problem has succeeded, researchers said yesterday. The problem has stood out as a challenge to computer scientists for 17 years because it was linked to a popular coding system and was said to be proof of the system's security. The problem was to factor a 129-digit number . . . . This particular number was suggested 17 years ago by the inventors of a coding system that was said to be provably secure because to break it a person would have to factor a very large number.
>
> To show how hard it was, the inventors of the coding system published the 129-digit number, encoded a message with it, and challenged people to break the code and read the message. They predicted that it would take 40 quadrillion years to factor it with the methods of the time and that no one would be able to break the code until well into the next century.

126 For example, "Public-key Encryption" has a primary utilitarian role of securing the confidentiality of a transmission, yet it can also be used to signify authentication of an electronic contract. Similarly, the act of saving a transmission on a hard drive serves the primary role of document storage, but can also be used to signify the existence of a contract formed by a tangible means. *See supra* notes 123-25 and accompanying text.

V. Conclusion: Judgment Day for the Statute of Frauds

> *Where is law moving from? From many different places. From libraries with large and impressive books. From courts in august buildings. From the paper on which contracts and documents are printed and from the filing cabinets in which they are stored. From the offices in which lawyers interact with clients. From a familiar and stable information environment. Perhaps even from one part of our minds to another.*
> *And where is law going? To a place where information is increasingly on screen instead of on paper. To a place where there are new opportunities for interacting with the law and where there are also significant challenges to the legal profession and to traditional legal practices and concepts. To an unfamiliar and rapidly changing information environment, an environment where the value of information increases more when it moves than when it is put away for safekeeping and is guarded. To a world of flexible spaces, of new relationships, and of greater possibilities for individual and group communication. To a place where law faces new meanings and new expectations.*[127]

Electronic transactions have facilitated fundamental changes within the commercial business industry and in so doing have challenged the legitimacy of various legal doctrines. A day of reckoning has arrived in which the legal profession must ensure that traditional tenets, devised to regulate a paper-based environment, do not hinder the growth of modern business enterprise. When existing legal rules no longer support the environment they were created to foster, reexamination and restructuring become a necessity. The alternative is a modern commercial environment stymied by outmoded doctrine and threatened by counter-productivity. When dealing with contracts created on electronic media, section 2-201 serves as a tedious formal requirement that attempts to facilitate enforcement. For a transaction created on an electronic platform such as the Internet, the requirements become more of a problem than a solution.

As the Internet and EDI technologies continue to expand and insinuate themselves into daily life, the need to adapt existing legal parameters and incorporate novel ones is a responsibility the legal profession has assumed and must retain. Business and industry have enthusiastically greeted the assimilation of electronic media into the commercial environment. The reasonable expectation is for the law to rise to the occasion and shepherd this change.[128]

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[127] Katsh, *supra* note 20, at 4.

[128] *See ABA Report and Model Trading Partner Agreement*, *supra* note 17, at 1657 ("The study clearly established that trading partners mutually intend for the electronic interchange of

Delineating a system of law that will regulate the use of these devices, resolve disputes that may arise, and protect the rights of individuals affected by the technology must be a primary objective of the modern legal community. Public policy goals which facilitate an environment in which advanced technology improves daily life, while guaranteeing that the rights of individuals in areas such as intellectual property, contract law, and freedom of speech are not violated, demand a prospective approach.[129] It is imperative that the law continually adapt to new and emerging technologies so that legal certainty can facilitate efficient business practice.

Applying the paradigm of neo-institutional microeconomics for restructuring the Statute of Frauds to adapt to modern commercial practices does just that. Selectively implementing the Statute based on a cost/benefit analysis effectively reconstructs section 2-201 into a dynamic, flexible, and efficient legal rule. Utilizing this economic theory as a vehicle for transforming the Statute maximizes procedural efficiency while it reduces transactional costs.

The on-going movement to revise Article 2 reflects a sound policy that the Drafting Committee has adopted. Electronic contracting exemplifies the essence of modern commerce; the current Statute of Frauds is its nemesis. Instituting changes that affect the concept and structure of Article 2 is the most efficient way to accommodate modern societal change in the law. Such changes will help secure unprecedented technological development, widespread commercial growth, and certain legal stability.

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data to give rise to contracts which are as valid and binding as those formed by the exchange of conventional paper documents.").

[129] *See* Olmstead v. United States, 277 U.S. 438 (1928) (addressing how underlying public policy goals apply in new information environments).