CLEANING UP A MESS ON THE WEB: A COMPARISON OF FEDERAL AND STATE DIGITAL SIGNATURE LAWS

*Julian Epstein**

INTRODUCTION

On June 30, 2000, President Clinton signed into law the Electronic Signatures in Global and National Commerce Act (E-Sign).[1] The purpose of the law is to create legal certainty and predictability in electronic commerce by affording electronic signatures (e-signatures) and electronic records (e-records) the same legal status as written signatures and records.[2] In what is perhaps an unprecedented reach into state contract law, E-Sign preempts state electronic signature laws[3] that are not in conformance with the final draft of the Uniform Electronic Transactions Act (UETA),[4] which was adopted in July of 1999 by the National Conference of Commissioners on Uniform State Laws (NCCUSL).[5] E-Sign further preempts any such state enactment that is "inconsistent" with key provisions of E-Sign, discussed *infra*. To date, thirty-eight states and the District of Columbia have enacted UETA statutes, and seven states and the United States Virgin Islands are now considering the measure.[6]

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* Former Chief Democratic Counsel, House Judiciary Committee; Stanford Law School, J.S.D. (ABD); Georgetown University, J.D. (*cum laude*); University of Michigan, A.B.

1. Electronic Signatures in Global and National Commerce Act §§ 101–301, 15 U.S.C. §§ 7001–7031 (2000); Remarks on Signing the Electronic Signatures in Global and National Commerce Act in Philadelphia, 2 PUB. PAPERS 1361 (June 30, 2000); Marc Lacey, *Clinton Signs E-Signature Bill*, N.Y. TIMES ON THE WEB, July 1, 2000, *at* http://www.nytimes.com/library/tech/00/07/biztech/articles/01digital.html.

2. H.R. REP. NO. 106-341, pt. 1, at 5 (1999). I will refer to a contract with an electronic record, or signed or affirmed by an electronic signature, as an electronic contract (e-contract). For the purpose of this Essay, "electronic signature," "electronic contract," "electronic record," and "digital signature" legislation may be used interchangeably. The symbol "e-" is used to connote the word "electronic."

3. 15 U.S.C. § 7002.

4. UNIF. ELEC. TRANSACTIONS ACT (1999), 7A U.L.A. 21 (Supp. 2001).

5. *Id*.

6. UNIF. LAW COMM'RS, A FEW FACTS ABOUT THE UNIFORM ELECTRONIC TRANSACTIONS ACT, *at* http://www.nccusl.org/nccusl/uniformact_factsheets/uniformacts-fs-

This seemingly modest proposal to enact a federal baseline of legitimacy for electronic contracts has created an abundance of legal uncertainty regarding the scope of federal preemption of state contract law and what rules will govern consumer rights, record-retention requirements and other matters. Rather than a mere extrapolation of the brick-and-mortar legal regimes to cyberspace, E-Sign and UETA create a complex, interwoven web of contract law for the new economy that is anything but simple.

The purpose of this Essay is to analyze the intersection of these two legal approaches to consummating e-contracts and to suggest how their interaction may create confusion and unanswered questions that can be remedied by states in their adoption of e-signature laws. While similar to E-Sign in many respects, UETA provides far fewer protections for consumers, allowing them to consent to receiving all notices, records and proposed modifications electronically without any demonstration that the consumer fully understands or has access to the software or equipment that may be needed to access the documents. E-Sign, by contrast, ensures that consumers fully understand the extent to which they consent to electronic notices and records and the technological requirements needed to access such records. UETA does not exempt any type of consumer transactions, whereas E-Sign requires that consumers get paper records on vital matters such as health insurance and mortgage foreclosures. E-Sign encourages, but does not require, states to adopt their own UETA statutes, but invalidates those statutes if their provisions are "inconsistent" with E-Sign. However, E-Sign does not establish any bright line test for determining inconsistency.

Part I will discuss the increasing use of e-contracts in both business and consumer transactions and the reasons behind the enactment of federal e-signature legislation. Part II will provide an overview of UETA and E-Sign. Part III will provide a more detailed analysis of the interactions of E-Sign's and UETA's provisions. Finally, Part IV considers the problems with federal preemption. The paper concludes by arguing that states should—both on public policy grounds and to avoid federal preemption problems—mimic the consumer protections set forth in the federal statute when adopting their own UETA statutes.

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ueta.asp (last visited Apr. 3, 2002) (on file with the *New York University Journal of Legislation and Public Policy*).

I
BACKGROUND AND PURPOSES OF E-SIGNATURE LEGISLATION

E-contracts are an inseparable part of the forward march of electronic commerce (e-commerce), which encompasses both business-to-business and consumer transactions. In the business-to-business realm, early studies estimated that business-to-business e-commerce by 2002 would reach a value of $300 billion, but today it is estimated that, by 2003, the value of business-to-business e-commerce will soar to $1.3 trillion.[7] Additionally, consumer e-commerce totals are estimated to be in the range of forty billion to eighty billion dollars for 2002.[8] As the House Commerce Committee legislative report on the E-Sign legislation states: "The growth of electronic commerce has been stunning. . . . Individuals can now manage their retirement portfolios, purchase an automobile or life insurance, or search for a home mortgage online among other major transactions."[9]

Although e-contracts represent a highly convenient way to conduct commerce, there are hidden dangers for the less technologically sophisticated in the use of such contracts. For example, an electronic contract for health insurance may provide that any subsequent changes in policy coverage or premiums be communicated electronically, leaving the vital matter of health insurance coverage to the uncertainties of successful electronic transmission. A policy holder may change her e-mail address, a filter may inadvertently mistake the notifying e-mail for an unsolicited "spam" e-mail and thus sift it out, a file-server may break down, or an Internet Service Provider (ISP) may become disabled or go out of business. A consumer may not have the technological capacity to download or otherwise access communications that are sent via sophisticated software programs. Records may be altered each time they are accessed, rendering them useless as evidence in court in the event a contract is litigated. A merchant may, unbeknownst to the consumer, change the technological requirements for accessing records and future notices, leaving that consumer unable to access the contract or receive needed notifications. In the brick-and-mortar world of carbon copies, communication mishaps may cause delay and inconvenience, but can be remedied by a phone call or facsimile. In the more vaporous digital world the dangers are far greater: actual contract records can be altered and communications may never reach the intended party in an accessible format, creating a cascading

7. DEP'T OF COMMERCE, THE EMERGING DIGITAL ECONOMY II, at 5 (1999).

8. *Id.*; *see also* H.R. REP. NO. 106-341, pt. 1, at 6 (1999) (noting rapid growth of e-commerce).

9. H.R. REP. NO. 106-341, pt. 1, at 6.

mess. Indeed, in cases involving health care, utility services, defaults on loans, or recalls of automobiles, any one of these communication breakdowns could be disastrous.[10]

There are three reasons advanced to justify federal e-signature legislation. First, there is uncertainty as to whether courts in states that have not enacted digital signature laws would recognize e-contracts in light of the writing requirements of the Statute of Frauds.[11] While some courts treat e-contracts as valid contracts,[12] not all courts have been so accommodating. For instance, in *Roos v. Aloi*, a New York court held that a tape-recorded contract was unenforceable for failing to comply with the Statute of Frauds.[13] Similarly, in *Department of Transportation v. Norris*, the Court of Appeals of Georgia invalidated a contract consummated through a facsimile transmission.[14] These cases and others have raised fears that courts may strike down e-contracts based upon the same reasoning. As the House Commerce Committee Report on E-Sign states, "Today, the legal effect of an electronic record or an electronic signature is uncertain due to the lack of specific affirmative statutes recognizing the equivalency of electronic signatures and records to written signatures and records."[15]

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10. For a discussion of similar concerns, see *Electronic Signatures in Global and National Commerce (E-Sign) Act: Hearing on H.R. 1714 Before the House Subcomm. on Courts and Intellectual Prop. of the House Comm. on the Judiciary*, 106th Cong. 37–43 (1999) [hereinafter *Judiciary Hearings*] (statement of Margot Saunders, Managing Attorney, Nat'l Consumer Law Ctr.); NAT'L CONSUMER LAW CTR., COMMENTS TO THE FED. TRADE COMM'N AND DEP'T OF COMMERCE ON E-SIGN STUDY—COMMENT P004102, (Apr. 2, 2001), *at* http://www.ftc.gov/bcp/workshops/esign/comments/nclc.pdf (on file with the *New York University Journal of Legislation and Public Policy*); NAT'L CONSUMER LAW CTR., PEOPLE WITHOUT COMPUTERS MUST BE PROTECTED, *at* http://www.consumerlaw.org/e_commerce/digsig.sample.html (last visited Apr. 3, 2002) (on file with the *New York University Journal of Legislation and Public Policy*).

11. U.C.C. § 2-201, 1 U.L.A. 242 (1989); *see also* H.R. REP. NO. 106-341, pt. 1, at 5–8.

12. *See, e.g.*, CompuServe, Inc. v. Patterson, 89 F.3d 1257, 1264 (6th Cir. 1996) (stating that defendant entered into agreement when he subscribed to CompuServe, uploaded software onto CompuServe system for others to use, and sent software via electronic links to CompuServe system); Hotmail Corp. v. Van$ Money Pie, Inc. 47 USPQ2d (BNA) 1020 (N.D. Cal. 1998) (noting that defendants entered into contract and agreed to Hotmail's Terms of Service when obtained several Hotmail mailboxes and access to Hotmail's services); Groff v. America Online, Inc., No. PC 97-0331, 1998 R.I. Super. LEXIS 46, at *10 (R.I. Super. Ct. May 27, 1998) (discussing question of where contract is considered to have been executed in course of electronic agreement).

13. Roos v. Aloi, 487 N.Y.S.2d 637, 642–43 (Sup. Ct. 1985).

14. Dep't of Transp. v. Norris, 474 S.E.2d 216 (Ga. Ct. App. 1996), *rev'd on other grounds*, 486 S.E.2d 826 (Ga. 1997).

15. H.R. REP. NO. 106-341, pt. 1, at 7 (1999).

The second reason for enacting federal legislation is to avoid the creation of a modern day "Tower of Babel," which may result from disparate laws among the states.[16] For instance, the digital signature laws of some states give enhanced legal status to preferred secure technologies and standards.[17] Other states have differing standards on consumer protection and record-retention requirements.[18] Because of the patchwork of state laws, the committee report argues, "There is . . . a clear need for a uniform, nationwide legal standard to be in place."[19] Congress's clear intent was to create a needed uniformity to build confidence among e-traders that e-contracts would be legally binding:

> By removing the uncertainty over the legal effect, validity, or enforceability of electronic signatures and records, electronic commerce will have the opportunity to reach its full potential. By adding greater legal certainty and predictability to electronic transactions, consumers' understanding and confidence in and use of those transactions will grow. Further, companies now developing electronic signatures and structures for their use will have the necessary legal framework in place to focus their attention on proving their technology in the marketplace.[20]

The third reason for a federal statute is consumer protection,[21] as a digital contract may give unscrupulous individuals endless opportunities to exploit less sophisticated consumers by seducing them to assent to e-contracts that obliquely require, as stated *supra*, that all future records and notices be sent to them in an electronic format they cannot access. Speaking about an earlier draft of the legislation, Margot Saunders of the National Consumer Law Center testified that:

> H.R. 1714 would permit electronic disclosures to substitute for paper notices even when the consumer doesn't know that he or she has consented to electronic communication, doesn't have a computer, or can't print the information when it is received. There are no requirements in the bill for meaningful, actual agreement by the consumer to receive records electronically. In almost every trans-

16. *See id.* at 7–8.

17. *Id.* at 8.

18. *See id*.

19. *Id*.

20. *Id.*; *see also* H.R. REP. NO. 106-341, pt. 2, at 7–8 (1999) (discussing problems created by state variations in contract law).

21. *See, e.g.*, *Judiciary Hearings*, *supra* note 10, at 37–40 (statement of Margot Saunders, Managing Attorney, Nat'l Consumer Law Ctr.); 146 CONG. REC. S5219–22 (daily ed. June 15, 2000) (statement of Sen. Patrick Leahy); 146 CONG. REC. H4360 (daily ed. June 14, 2000) (statement of Rep. Billy Tauzin).

> action between consumers and business it is a "take it or leave it" proposition for the consumer.[22]

As early as 1997, President Clinton put his oar in these murky waters and warned, "Many businesses and consumers are still wary of conducting extensive business over the Internet because of the lack of a predictable legal environment governing transactions."[23] He proposed basic principles for federal legislation, three of which were: (1) rules should be technologically neutral and should not assume the use of a particular technology or hinder the advent of new technologies; (2) existing rules should be modified only to the extent they are necessary or substantially desirable to support the use of electronic technologies; and (3) the process should try to integrate both high technology businesses and those not traditionally thought of as part of the "new economy."[24] The federal legislation that followed from the President's request, together with NCCUSL's drafting of UETA, resulted in a consumer-friendly federal statute that gives limited leeway to states to draft their own statutes so long as they do not substantially depart from the federally established paradigm.

II
The Uniform Electronic Transactions Act and the Federal Electronic Signatures in Global and National Commerce Act

The Uniform Law Commissioners, a part of the NCCUSL, promulgated UETA in 1999 in order to establish the first baseline to ensure consistency of electronic contract law among the states.[25] The NCCUSL is a nonprofit, unincorporated association comprised of state commissioners, which has worked toward the uniformity of a wide variety of state laws since 1892.[26] Currently, the work of the NCCUSL focuses largely on commercial law, the law of probate and es-

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22. *Judiciary Hearings*, *supra* note 10, at 39 (statement of Margot Saunders, Managing Attorney, Nat'l Consumer Law Ctr.).

23. *See* The White House, A Framework for Global Electronic Commerce, Executive Summary (July 1, 1997), *reprinted in* 2 Global Issues No. 4 (Oct. 1997), *at* http://usinfo.state.gov/journals/itgic/1097/ijge/gj-12.htm (on file with the *New York University Journal of Legislation and Public Policy*).

24. *Id.*

25. Unif. Law Comm'rs, Summary: Uniform Electronic Transactions Act, *at* http://www.nccusl.org/nccusl/uniformact_summaries/uniformacts-s-ueta.asp (last visited Apr. 5, 2002) (on file with the *New York University Journal of Legislation and Public Policy*).

26. Unif. Law Comm'rs, About Us, *at* http://www.nccusl.org/nccusl/aboutus.asp (last visited Apr. 7, 2002) (on file with the *New York University Journal of Legislation and Public Policy*).

tates, health law, and conflicts of law.[27] NCCUSL seeks to create uniformity among the numerous state laws, and serves as a forum where experts from different states can arrive at a consensus and recommend enactment by state legislatures of their positions.[28] Each of the three hundred NCCUSL members is a member of the bar, serves for a specified term in office, and none receives payment for his or her work with the NCCUSL.[29] Each jurisdiction determines the number of commissioners to appoint and the method of appointment to use.[30]

UETA is intended to cover electronic transmissions. Therefore, with the exception of the Uniform Commercial Code's (UCC) contract provisions in article II, UETA is intended to deal with transactions that are not subject to the UCC.[31] According to NCCUSL:

> UETA applies only to transactions in which each party has agreed by some means to conduct them by [sic] electronically. Agreement is essential. Nobody is forced to conduct to [sic] electronic transactions. Parties to electronic transactions come under UETA, but they may also opt out. They may vary, waive or disclaim most of the provisions of UETA by agreement, even if it is agreed that business will be transacted by electronic means. The rules in UETA are almost all default rules that apply only in the event the terms of an agreement do not govern.[32]

E-Sign, on the other hand, is fundamentally Congress's expression of skepticism about UETA. First, Congress was highly concerned about the patchwork of different UETA enactments by the states, creating uncertainty as to how conflicts of law would be resolved.[33] Therefore, Congress preempts any UETA enactments that significantly depart from the federally enacted rules.[34] Second, E-Sign recognizes that UETA's laissez-faire approach to consumer con-

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27. *Id.*
28. *Id.*
29. *Id*.
30. *Id*.
31. UNIF. LAW COMM'RS, *supra* note 25; *see also* Michael H. Dessent, *Digital Handshakes in Cyberspace Under E-Sign*: *"There's a New Sheriff in Town!"*, 35 U. RICH. L. REV. 943, 999 (2002) (discussing scope of UETA).
32. UNIF. LAW COMM'RS, *supra* note 25; *see also* Dessent, *supra* note 31, at 999–1000 (discussing purposes and goals of UETA).
33. H.R. REP. NO. 106-341, pt. 1, at 8 (1999); *see also The Electronic Signatures in Global and National Commerce Act: Hearing on H.R. 1714 Before the House Subcomm. on Fin. & Hazardous Materials of the House Comm. on Commerce*, 106th Cong. 17 (1999) [hereinafter *Commerce Hearings*] (statement of Michael J. Hogan, Senior Vice President and General Counsel, DLJ*direct*, Inc.) (discussing "need for federal legislation to ensure conformity").
34. Electronic Signatures in Global and National Commerce Act § 102(a), 15 U.S.C. § 7002(a) (2000).

sent to electronic contracts and records is fraught with the danger that underhanded merchants will dupe unsuspecting consumers into digital contracts with records consumers cannot access. E-Sign thus protects consumers by forbidding the waiver of paper records in enumerated areas and by creating a checklist of safeguards that should ensure consumer awareness of, and access to, the technological requirements needed to access notices and records relating to a digital contract.[35]

III
UETA AND E-SIGN: A COMPARISON

In 1997, the NCCUSL undertook to develop a consensus model law for the states in the area of electronic contracts.[36] NCCUSL abided by a rigorous schedule and completed its final iteration in just two years, finalizing its proposal in 1999.[37] The resulting UETA is strikingly minimalist in its approach. It validates e-contracts and records where there is mutual assent and, in the event the contract does not specify otherwise, creates default rules on consumer protections, the integrity of records, delivery, and mistake.[38] UETA adopts a kind of *caveat emptor* philosophy, which requires that consumers and others be ever-vigilant of parties who may seek to entice consumers into e-contracts on an uneven electronic playing field. However, UETA envisions that states will, when adopting e-signature laws, supplement the provisions in the model statute.[39]

E-Sign, by contrast, is far more paternalistic. Similar to UETA, E-Sign validates both e-contracts and records.[40] However, it also provides far more comprehensive protections to ensure that parties understand precisely to what they are consenting (e.g., a mere contract affirmed by an electronic signature, or an agreement providing that all subsequent notices and records will be delivered in electronic format), realize the technological requirements that may be necessary to access records, are directed to the relevant hardware and software they may

35. *Id.* §§ 101(c), 103.

36. *See* Memorandum from Ben Beard, Reporter, to Electronic Transactions Act Drafting Committee and Observers (Aug. 15, 1997), http://www.law.upenn.edu/bll/ulc/uecicta/ect997.pdf (on file with the *New York University Journal of Legislation and Public Policy*).

37. *See* The ETA Forum, *The Process*, *at* http://www.webcom.com/legaled/ETAForum/bkgd.html (last revised July 11, 1999) (on file with the *New York University Journal of Legislation and Public Policy*); UNIF. LAW COMM'RS, *Summary: Uniform Electronic Transactions Act*, *supra* note 25.

38. *See* UNIF. ELEC. TRANSACTIONS ACT, 7A U.L.A. 21 (Supp. 2001).

39. *Id.* at Prefatory Note.

40. Electronic Signatures in Global and National Commerce Act § 101(a), 15 U.S.C. § 7001(a) (2000).

need, and have a right to withdraw consent for electronic communications.[41] Furthermore, E-Sign provides greater protections to ensure the integrity and permanence of e-records.[42] E-Sign also preempts any state laws that discriminate in favor of particular technologies used putatively to enhance security,[43] and creates a somewhat opaque zone of federal preemption that invalidates "inconsistent" state provisions.[44] Because of this federal preemption provision, the federal statute and the state model statute are now inexorably intertwined for the foreseeable future. While states still retain some sovereign authority over electronic contract law, the extent to which states can depart from the federal scheme is considerably bridled.

A. Consumer Protection

Protecting consumers in the brave new world of cyber contracts is a major concern of both UETA and E-Sign. Both laws require consumers to consent to e-contracts, and both laws require, to varying degrees, some showing that consumers have the technological capacity to open, download, or otherwise access e-communications and e-records.[45] However, the similarities stop at the ways in which each law attempts to achieve these objectives.

1. Waiving Rights to Written Records

E-contracts may require that, with a single click, parties conduct business completely online. This means not only that the contract is consummated in electronic format, but also that all subsequent and related communications and notices will be provided electronically.[46] For example, a door-to-door salesman may get a consumer to consent to an electronic contract, the fine print of which waives her rights to written records, allows for future communications and notices with software to which she cannot reasonably access, and creates penalties for failing to respond to notices that she cannot access. The notice of the right to cancel the door-to-door sale, as required by state law and the FTC, or the details of a financing agreement from the salesperson,

41. *Id.* § 101(c)(1).
42. *Id*. § 101(d).
43. *Id.* § 102(a)(2)(A)(ii).
44. *Id.* § 102(a).
45. *Id.* § 101(c)(1); UNIF. ELEC. TRANSACTIONS ACT §§ 5, 8, 7A U.L.A. 40, 45 (Supp. 2001).
46. *See* Nat'l Consumer Law Ctr., Comments to the Fed. Trade Comm'n and Dep't of Commerce on E-Sign Study—Comment P004102, *supra* note 10, at 3–5 (discussing ways e-contracts may be utilized by businesses and difference between paper and computer transactions).

as required by state or federal law, could all be posted on a Web site, rather than handed to a consumer at the time the contract is consummated. She may not have hardware or software capacity to download the relevant file or to open the relevant attachment, even if she can find where it is posted on the Web, as the contract provides.[47] Consumer advocates worry that consumers who consent to substituting specific writings with electronic communications might be opening themselves up to unexpected burdens and risks.[48] Should an unexpected technical problem arise, consumers who have consented only to receive electronic communications will not be able to access important information.[49]

UETA is largely silent with respect to this problem, allowing consumers to, with a single click, consent to "all-cyber" relationships, provided there is manifest assent to do so, regardless of whether the consumer expressly understands the difficulties that may be inherent in future communications under the contract.[50] Thus, UETA does not protect against the ease with which unsavory parties can hoodwink unsophisticated consumers into electronic relationships in which the consumer cannot participate on an equal footing.

Consistent with its minimalist approach, UETA incorporates, by reference, any existing state law requirements on conspicuousness.[51] If a state law requires conspicuous notice for a particular type of contract or record, then UETA provides that such a requirement may be satisfied in electronic format, provided that the notice comports gener-

47. *Id.* at 5–6.

48. *See id*. at 6–7.

49. *See id*. at 8.

50. *See* UNIF. ELEC. TRANSACTIONS ACT § 5(b) (stating that whether parties agree to conduct electronic transaction is determined by "context and surrounding circumstances"), § 5(c) (providing merely that "[a] party that agrees to conduct a transaction by electronic means may refuse to conduct other transactions by electronic means").

51. Section 8(b) of UETA provides:

> If a law other than this [Act] requires a record (i) to be posted or displayed in a certain manner, (ii) to be sent, communicated, or transmitted by a specified method, or (iii) to contain information that is formatted in a certain manner, the following rules apply:
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> (1) The record must be posted or displayed in the manner specified in the other law.
>
> (2) Except as otherwise provided in subsection (d)(2), the record must be sent, communicated, or transmitted by the method specified in the other law.
>
> (3) The record must contain the information formatted in the manner specified in the other law.

Id. § 8(b).

ally with the requirements in the paper world.[52] Beyond that, UETA is less attentive to problems lurking in digital contracts. Unlike E-Sign, UETA does not expressly recognize certain vital matters—such as health insurance—where writing requirements are sacrosanct and cannot be traduced with the vicissitudes of e-communications.[53]

E-Sign takes a far more aggressive approach to consumer protection in numerous ways. E-Sign specifies that consent to e-records is valid only if the consumer, prior to consenting, is provided with a "clear and conspicuous" statement informing the consumer of (1) her rights to written records, (2) her rights to withdraw consent for electronic substitution, (3) which specific records she is waiving rights to receive paper copies of, (4) how to withdraw her consent for electronic communications, (5) how to obtain paper copies and what fees may be charged, (6) what hardware and software requirements may be needed to access information.[54]

Further, unlike UETA, E-Sign also establishes consumer "safe havens" on matters deemed too vital to be left to the uncertainties of successful electronic transmissions: cancellation or termination of utility services, health and life insurance benefits, default, acceleration, repossession, foreclosure, eviction, the right to cure a credit or rental agreement, notice of recall or material failure of a product which may endanger health or safety, and documents relating to shipment and storing of hazardous materials.[55] Here, E-Sign provides the safe haven by declining to provide federal validation for electronic communications on these matters, which means that electronic records will not, under federal law, satisfy legal obligations of notice and requirements that these items be in writing. Most states require written records and notifications in these areas, and while E-Sign does not preempt states validating electronic substitutes on these matters, it is unlikely that states will do so now that Congress has created a federal baseline of legitimacy of such consumer protections.[56]

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52. *See id*. § 8(a); *see also id.* §§ 12(a), 15 (allowing electronic methods to be used for retention and sending of documents).

53. *See* Patricia Brumfield Fry, *A Preliminary Analysis of Federal and State Electronic Commerce Laws*, UETA ONLINE, *at* http://www.uetaonline.com/docs/pfry700.html (last modified July 9, 2000).

54. Electronic Signatures in Global and National Commerce Act § 101(c)(1)(A)–(C), 15 U.S.C. § 7001(c)(1)(A)–(C) (2000).

55. *Id*. § 103(b).

56. As of this writing, there are no states that have enacted UETA statutes that allow significant electronic substitutes in these federally protected areas.

2. Technological Capacity

An issue closely related to consumer consent is the extent to which digital signature laws will affirmatively seek to ensure that consumers have the technological capacity to receive communications before entering into digital contracts, particularly those involving essential consumer affairs. A lending institution might, for instance, offer an electronic mortgage at an adjustable rate. As part of the mortgage contract, the institution may, unbeknownst to the mortgagee at the time of the signing of the mortgage, send e-mail attachments with notices that require special software to open them.[57] UETA provides minimal guarantees that consumers will have the technological means to access e-documents, and merely requires that parties have assented to electronic communications,[58] that communications be sent to a system which has been designated by the recipient and which is capable of processing the information,[59] and that records be "capable

57. Consider the following hypothetical:

> [A]n elderly consumer sitting at home . . . is visited by an aluminum siding salesperson. The salesperson talks the consumer into agreeing to an expensive contract for new siding. The documents state that the consumer "agrees" that all the information relating to the transaction will be provided electronically. The salesman takes out a laptop, connects to the Internet through the consumer's telephone line, and asks the consumer to type her name on the computer as he scrolls through the FTC Notice for Door to Door Sales about the consumer's right to cancel, the sales contract, the mortgage on the house, the Truth in Lending disclosures, along with other required legal notices. When the salesperson departs, the consumer is left with no paper copies of these key documents.

MARGOT SANDERS & GAIL HILLEBRAND, NAT'L CONSUMER LAW CTR., E-SIGN AND UETA: WHAT SHOULD STATES DO NOW? (Sept. 2000), *at* http://www.consumerlaw.org/e_commerce/esign_ueta.pdf (on file with the *New York University Journal of Legislation and Public Policy*).

58. Section five of UETA provides:

> (b) This [Act] applies only to transactions between parties each of which has agreed to conduct transactions by electronic means. Whether the parties agree to conduct a transaction by electronic means is determined from the context and surrounding circumstances, including the parties' conduct;
>
> (c) A party that agrees to conduct a transaction by electronic means may refuse to conduct other transactions by electronic means. The right granted by this subsection may not be waived by agreement.

UNIF. ELEC. TRANSACTIONS ACT § 5(b)–(c), 7A U.L.A. 40 (Supp. 2001).

59. Section fifteen of UETA states:

> (a) Unless otherwise agreed between the sender and the recipient, an electronic record is sent when it:
>
> (1) is addressed properly or otherwise directed properly to an information processing system that the recipient has designated or uses for the purpose of receiving electronic records or information of the type sent and from which the recipient is able to retrieve the electronic record;

of retention."[60] While it is modest to begin with, UETA also creates the über-loophole, by requiring these duties *unless otherwise agreed to by the parties*.[61] This clause essentially negates the purpose of the section; contractors can simply include these waivers in much the same way they include the provisions regarding future notice and records that put the consumer at a disadvantage.

E-Sign takes a far more aggressive approach here as well, requiring a host of protections that the consumer cannot simply sign or click away. Specifically, E-Sign requires that, as a condition of contract validity, a consumer:

> (i) prior to consenting, [be] provided with a statement of the hardware and software requirements for access to and retention of the electronic records; and
>
> (ii) consents electronically, or confirms his or her consent electronically, in a manner that reasonably demonstrates that the consumer can access information in the electronic form that will be used to provide the information that is the subject of the consent . . . .[62]

E-Sign also requires that the consumer be informed specifically of the software, hardware or other technological requirements necessary to access electronic records and notices.[63] Thus, a consumer must understand the requirements and manifest a capacity—at the time of contract formation—to receive subsequent electronic records. Furthermore, in the event that such requirements change, E-Sign ensures that a consumer is guaranteed updated notices, provided necessary information as to where the software or hardware may be acquired, and afforded the right to withdraw consent to further electronic communications without penalty.[64]

> (2) is in a form capable of being processed by that system; and
>
> (3) enters an information processing system outside the control of the sender or of a person that sent the electronic record on behalf of the sender or enters a region of the information processing system designated or used by the recipient which is under the control of the recipient.

Id. § 15.

60. *Id*. § 8(a).

61. *Id.* § 15.

62. Electronic Signatures in Global and National Commerce Act § 101(c)(1)(C)(i)–(ii), 15 U.S.C. § 7001(c)(1)(C)(i)–(ii) (2000).

63. *Id.* § 101(c)(1)(D).

64. *Id.*

B. Record Retention

Because courts often require "original writings,"[65] in the event of a contract dispute, record retention (e.g., the ability to maintain the integrity and permanency of electronic records) becomes a *sine qua non* of an enforceable contract. The integrity of records in a paper world is generally assumed. A paper writing, by its very nature, is tangible and generally is not subjected to inadvertent change.[66] Intentional change of paper documents requires forgery and specialized skills. All parties generally have access to copies which can be used to prove the terms of an agreement in court.

By contrast, there are endless ways in which electronic records can be corrupted. Alterations are often impossible to detect, and the incentives to commit fraud increase if one party is aware that the other party to a contract cannot access the document, or has in some way inadvertently corrupted it.[67] For example, an electronic mortgage may be designed so that a new contemporaneous date is placed on it every time it is accessed. In the event that one party's records are altered, the electronic record can no longer prove its own contents, and the critical question becomes how easily that party can access original records or those of the adverse party, if necessary, to prove the terms of a contract.[68]

Here again, UETA provides relatively minimal protections, requiring only that records be "capable of retention,"[69] that such records "accurately reflect[ ] the information set forth in the record after it was first generated in its final form as an electronic record or otherwise,"[70] and that the records be accessible for later reference (without specifying to which parties the records must remain availa-

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65. *See* FED. R. EVID. 1001(3), 1002; UNIF. R. EVID. 1001(3), 1002.

66. *See Judiciary Hearings*, *supra* note 10, at 37 (statement of Margot Saunders, Managing Attorney, Nat'l Consumer Law Ctr.).

67. *See* Helger Lipmaa, Cybernetica, *Digital Signatures and Authentication*, *at* http://www.cyber.ee/research/publications/auth/ (June 28, 1999) (on file with the *New York University Journal of Legislation and Public Policy*).

68. *See Judiciary Hearings*, *supra* note 10, at 37 (statement of Margot Saunders, Managing Attorney, Nat'l Consumer Law Ctr.).

69. UNIF. ELEC. TRANSACTIONS ACT § 8(a), 7A U.L.A. 40 (Supp. 2001).

70. *Id.* § 12(a). Section twelve of UETA provides in its entirety:

> (a) If a law requires that a record be retained, the requirement is satisfied by retaining an electronic record of the information in the record which: (1) accurately reflects the information set forth in the record after it was first generated in its final form as an electronic record or otherwise; and (2) remains accessible for later reference.

Id. § 12(a).

ble).[71] These safeguards, however, may prove illusory. The "capable of retention" language does not include the proviso that the records be retained in original form, nor that the consumer know how to access them and what attendant technological requirements are needed to do so. The access language does not ensure that *all* parties can obtain original e-records in the event of litigation. Finally, the provision that requires communications be sent to a designated system is also ineffectual, as that provision can be altered by a contract with terms that are not sufficiently understood by an unsophisticated consumer.[72]

E-Sign, by contrast, provides for stricter rules on record-retention, filling many of the gaps left open by UETA. First, like UETA, E-Sign provides for validation of electronic records only when such records "accurately reflect[ ] the information in the contract or other record."[73] Again, however, E-Sign is considerably more protective than UETA in addressing problems that result from alterations, inadvertent or otherwise. Specifically, E-Sign provides that "the legal effect, validity, or enforceability of an electronic record of such contract or other record may be denied if such electronic record is not in a form that is capable of being retained and accurately reproduced for later reference by *all* parties or persons who are entitled to retain the contract or other record."[74] This ensures that a consumer or other party can gain access to original electronic documents and provides the consumer with access to records of the seller or other party.

C. Technology Discrimination

Many e-commerce transactions occur without any face-to-face contact. With the ever increasing sophistication of technology, cheats can more easily devise ingenious ways of impersonating a party in cyberspace. As a result, many parties are using secure technologies

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71. *Id*.

72. *See id.* § 15(a) (qualifying requirements for sending and receiving of electronic records with following caveat: "unless otherwise agreed between the sender and the recipient . . . ").

73. Section 101(d)(1) of E-Sign provides for the validity of electronic records that:

> (A) accurately reflects the information set forth in the contract or other record; and
>
> (B) remains accessible to all persons who are entitled to access by statute, regulation, or rule of law, for the period required by such statute, regulation, or rule of law, in a form that is capable of being accurately reproduced for later reference, whether by transmission, printing, or otherwise.

Electronic Signatures in Global and National Commerce Act § 101(d)(1), 15 U.S.C. § 7001(d)(1) (2000).

74. *Id.* § 101(e) (emphasis added).

such as asymmetric cryptology and digital fingerprinting to enhance security.[75] The controversy emerges in the context of e-contract laws when a governmental body decrees, by statute or regulation, that only favored technologies will be given contractual validity. Indeed, some state[76] and foreign governments[77] have already adopted laws that discriminate in favor of certain technologies. Such efforts have been met with vigorous criticism.[78] Critics argue that such governmental mandates are not the proper business of the government—as government should not be in the business of picking technologies' winners and losers—and that they prevent the development of new technologies which are discouraged or disadvantaged by the mandate.[79]

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75. *E.g.*, Danielle Borasky & Jason Link, *All About Digital Signatures*, *at* http://www.unc.edu/~dvb/cyberlaw/digitalsignatures/main.html (last modified Mar. 21, 1998) (on file with the *New York University Journal of Legislation and Public Policy*); Distributed Trust Management, Inc., *Step 2: Digital Fingerprinting*, *at* http://www.dtmi.net/witness_demo2.php (last visited Apr. 7, 2002) (on file with the *New York University Journal of Legislation and Public Policy*); Melanie Austria Farmer, *Napster to Add Fingerprinting to Filters*, CNET NEWS.COM, June 7, 2001, *at* http://news.com.com/2100-1023-267997.html?legacy=cnet; Private Sector Council, *The World According to e: Discussions From the October IMT Group Meeting* (October 2000), *at* http://www2.ari.net/psc0698/news/imt/f00.html (on file with the *New York University Journal of Legislation and Public Policy*).

76. *See Commerce Hearings*, *supra* note 33, at 17 (statement of Michael J. Hogan, Senior Vice President and General Counsel, DLJ*direct*, Inc.) (describing overly specific criteria under state law for recognizing validity of electronic signatures); *id.* at 3 (statement of Rep. Tom Bliley, Chairman, Comm. on Commerce) ("[S]ome [state] laws only recognize an electronic signature generated by a specific technology."); H.R. REP. NO. 106-341, pt. 1, at 8 (1999) (citing varying and often discriminatory nature of state laws governing electronic signatures). Utah is a perfect example of the discriminating nature of state action in this area, having given heightened legal effect to agreements using dual key encryption with third party certification. *See* UTAH CODE ANN. §§ 46-3-401 to 46-3-406 (1998). The District of Columbia and Minnesota have adopted similar statutes. *See* D.C. CODE ANN., §§ 28-4904 to 28-4911 (Supp. 2001); MINN. STAT. ANN. § 325K.19–.24 (West Supp. 2002). As another example, the Illinois Electronic Commerce Security Act gives greater legal status to agreements utilizing secured signatures certified by the Illinois Secretary of State. *See* 5 ILL. COMP. STAT. ANN. 175/10-110 (West Supp. 2001).

77. *See Commerce Hearings*, *supra* note 33, at 18 (statement of Michael J. Hogan, Senior Vice President and General Counsel, DLJ*direct*, Inc.) (discussing European Union's stance favoring "technology-specific or party-specific methodologies"); H.R. REP. NO. 106-341, pt. 1, at 9–10 (citing Germany's adoption of technology-specific standards for digital signatures).

78. *See, e.g.*, *Commerce Hearings*, *supra* note 33, at 17–18 (statement of Michael J. Hogan, Senior Vice President and General Counsel, DLJ*direct*, Inc.) (noting "pitfalls" of state approach and warning that European Union's approach is "misguided"); *id.* at 3 (statement of Rep. Bliley, Chairman, Comm. on Commerce) (decrying "patchwork" of state laws).

79. *See Commerce Hearings*, *supra* note 33, at 17–18 (statement of Michael J. Hogan, Senior Vice President and General Counsel, DLJ*direct*, Inc.).

UETA is utterly silent on the issue of discrimination, deferring any such decision to the individual states.[80] E-Sign takes a very different approach. In fact, discrimination appears to have been a primary impetus behind the push for federal legislation prior to the enactment of E-Sign.[81] E-Sign not only forbids the federal government from prescribing technological preferences, but expressly preempts states from doing so.[82] The intent was to void existing state laws that discriminate in favor of particular technologies, and toT* - vent states from adopting any such prospective discriminatory standards. Indeed, discrimination is the only issue that is expressly singled out as unequivocally preempted in E-Sign.[83]

The only wiggle room E-Sign may provide with respect toTdiscrimination is the provision that permits states toTadopt "alternative procedures or requirements" provided they do not "require, or accord greater legal status or effect to" the implementation or application of a specific technology, specifications or standards for creating, generating, storing, communicating, or authenticating electronic records or signatures.[84] The line between the impermissible (i.e., technology preference) and permissible (i.e., mere alternative standards) could arguably become blurry with the advent of new technologies and with

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80. *See* UNIF. ELEC. TRANSACTIONS ACT, Prefatory Note, 7A U.L.A. 22 (Supp. 2001) ("To the extent that a State has a Digital Signature Law, the UETA is designed toTsupport and compliment that statute.").

81. *See infra* Part IV; *see also The Electronic Signatures in Global and National Commerce Act: Hearing on H.R. 1714 Before the Subcomm. on Telecomm., Trade, and Consumer Prot. of the House Comm. on Commerce*, 106th Cong. 1 (1999) (statement of Rep. Tauzin, Chairman, Subcomm. on Telecomm., Trade, and Consumer Prot. of Comm. on Commerce) (discussing need toTreform inconsistent state laws); *id.* at 3 (statement of Rep. Bliley, Chairman, Comm. on Commerce) ("We do not pick or choose a specific type of electronic authentication; nor do we choose what types of businesses should be allowed toToffer electronic signature services.").

82. Section 102(a)(2)(A) provides that a state may only:

> specif[y] the alternative procedures or requirements for the use or acceptance (or both) of electronic records or electronic signatures toTestablish the legal effect, validity, or enforceability of contracts or other records, if—
>
> (i) such alternative procedures or requirements are consistent with this subchapter and subchapter II of this chapter; and
>
> (ii) such alternative procedures or requirements do not require, or accord greater legal status or effect to, the implementation or application of a specific technology or technical specification for performing the functions of creating, storing, generating, receiving, communicating, or authenticating electronic records or electronic signatures.

Electronic Signatures in Global and National Commerce Act § 102(a)(2)(A), 15 U.S.C. § 7002(a)(2)(A) (2000).

83. *See id.* § 102(a)(2)(A)(ii).

84. *Id.*

the ever creative and resourceful actions of state legislatures. Real-time authentication may ameliorate fraud and piracy concerns and obviate the need for government standards, but, thus far, that technology is not yet widely available.[85]

D. Attribution

A closely related issue to technology discrimination is that of attribution. Specifically, this issue involves which indices of assent will bind a particular party to an e-contract.[86] Determining assent with digital signatures is more difficult than with physical signatures, as electronic signatures are "external" to the body. Someone who has momentary access to another's computer may be able to bind the owner to multiple contracts nearly instantaneously. For instance, one may have credit card information embedded in the registration for membership in Travelocity, an online travel agent. A simple two-minute execution on the owner's computer can bind the party to the purchase of multiple plane tickets. In other instances, digital signatures can be forged with such absolute precision that no expert can detect their fraudulent nature.[87] Unique digital identifiers could become as ubiquitous and useful as fingerprints with universally recognized formats and may help solve the problem, but, to date, no such system has been widely implemented.[88]

The UETA is reticent on what indicates attribution, and E-Sign is silent on it. Section nine of UETA states that an e-signature may be attributed to a party if such signature or indication of assent is an affirmative act on the part of the putatively bound individual.[89] Such determinations are to be made from the "context and surrounding cir-

85. *See* Andrew J. Pincus, *Toward a Uniform Commercial Legal Framework for Global Electronic Transactions*, ECONOMIC PERSPECTIVES (May 2000), *at* http://usinfo.state.gov/journals/ites/0500/ijee/pincus3.htm (on file with the *New York University Journal of Legislation and Public Policy*).

86. Fry, *supra* note 53.

87. *See, e.g.*, Brian Livingston, *Beware: E-Signatures Can Be Easily Forged*, CNET NEWS.COM, July 14, 2000, *at* http://news.com.com/2010-1080-281338.html?legacy=cnet (describing forgery concerns with digital signatures under E-Sign).

88. *See, e.g.*, Maggie Biggs, *Fraud, Negative ROI to Lead Businesses to Embrace Emerging Biometric Techniques*, INFOWORLD, *at* http://www.infoworld.com/articles/op/xml/00/08/07/000807opbiggs.xml (last visited Apr. 7, 2002) (predicting emergence of biometric technology to prevent digital signature fraud) (on file with the *New York University Journal of Legislation and Public Policy*); Eric Quilter, Compliance Information Systems, *What Is a Digital Signature?*, *at* http://www.everitest.net/html/datia2.html (last visited Apr. 7, 2002) (describing promise of biometric technology for use in forming unique digital signature) (on file with the *New York University Journal of Legislation and Public Policy*).

89. The text of UETA section nine reads as follows:

cumstances at the time of its creation."[90] E-Sign is utterly silent on attribution, leaving such determinations to the states and the UCC rules.[91]

E. Other Contract Issues

There are several second-tier issues that UETA and E-Sign address in varying degrees, or not at all, that are worthy of brief discussion. For instance, both provide nearly identical provisions for the electronic retention of canceled e-checks and require standards of accuracy and accessibility that mimic the UCC requirements in the paper world.[92] However, the UCC provisions govern the use of electronic checks as a payment device, while both UETA and E-Sign address only records needed for audit purposes and decline to grapple with the electronic payment rules in UCC Articles three and four for fear of the unanticipated complications such changes could have on the payment system.[93]

Neither UETA nor E-Sign addresses the validity of voice-activated technologies, despite the fact that cell phone and voice-activated platforms are increasingly used in the United States and abroad.[94]

(a) An electronic record or electronic signature is attributable to a person if it was the act of the person. The act of the person may be shown in any manner, including a showing of the efficacy of any security procedure applied to determine the person to which the electronic record or electronic signature was attributable.

(b) The effect of an electronic record or electronic signature attributed to a person under subsection (a) is determined from the context and surrounding circumstances at the time of its creation, execution, or adoption, including the parties' agreement, if any, and otherwise as provided by law.

UNIF. ELEC. TRANSACTIONS ACT § 9, 7A U.L.A. 47 (Supp. 2001).

90. *Id.*

91. *See* Patricia Brumfield Fry, *Why Enact UETA? The Role of UETA After E-Sign*, *in* UNIF. LAW COMM'RS, WHAT'S NEW, *at* http://www.nccusl.org/nccusl/whatsnew-article2.asp (last visited Apr. 7, 2002) (mentioning absence of discussion of issue of attribution in E-Sign as reason for adoption of UETA statutes) (on file with the *New York University Journal of Legislation and Public Policy*).

92. Electronic Signatures in Global and National Commerce Act § 101(d)(4), 15 U.S.C. § 7001(d)(4) (2000); UNIF. ELEC. TRANSACTIONS ACT § 12(e), 7A U.L.A. 52; *see* U.C.C. art. 3, 2 U.L.A. 17 (1989), U.C.C. art. 4, 2B U.L.A. 5 (1989).

93. *See* Electronic Signatures in Global and National Commerce Act § 103(a)(3) (declining to supplant UCC provisions other than those few specified in the text); UNIF. ELEC. TRANSACTIONS ACT § 3 & cmts.; U.C.C. §§ 3–4; *see also* Jane K. Winn & Robert A. Witte, *E-Sign of the Times*, E-COMMERCE LAW REPORT, July 2000, at 2, 7 (discussing why additional protections may have been omitted).

94. *See, e.g.*, Donovan Webster, *The Watch That Is Your Lifeline to the World*, N.Y. TIMES, June 11, 2000, §6 (Magazine), at 87 (discussing how this technology has been adopted abroad); Ben Charny, *Sun Makes Move in Voice Recognition*, CNET

While there is little legislative history indicating the reasons for such omission, it is fair to speculate that consumer protection, record retention, and attribution issues in the voice activation context are even more complex to develop and will require far more extensive examination.

Both laws sanction the use of e-documents as evidentiary material in court. UETA expressly addresses admissibility, providing that a record or signature may not be excluded from evidence simply because it is in electronic form.[95] Additionally, as stated earlier, UETA requires, as a condition of validity, that records accurately reflect "the information set forth in the record after it was first generated in its final form as an electronic record or otherwise."[96] E-Sign's sanction of the use of records as evidentiary material is more implicit. E-Sign validates records if they meet the requirements of permanence and access as required by section 101(d).[97] Records that do not meet such criteria are not federally sanctioned, and therefore appear to have little if any value in court unless sanctioned by the states.[98]

Section fifteen of UETA also specifies standards for the actual receipt of electronic records.[99] Such records will not be considered received in accordance with the statute until they enter an information processing unit designated by the recipient[100] and unless it is in a form capable of being processed by that system[101]. The parties can agree to change the specifications for actual receipt if they choose.[102] The danger is that there is no requirement to inform the consumer of her rights before she signs those rights away. E-Sign does not codify rules of receipt, but its provisions addressing records and consumer consent appear to address most concerns about the interruption of delivery due to technological or other reasons.[103]

With respect to change or error in transmissions between parties, UETA allows the party who conforms to agreed-upon security proce-

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NEWS.COM, Mar. 13, 2002, *at* http://news.com.com/2100-1033-859228.html ("By 2005, analysts believe the market for selling voice recognition equipment to automakers, business owners or telephone companies will balloon to about $4 billion.").

95. UNIF. ELEC. TRANSACTIONS ACT § 13.
96. *Id.* § 12(a).
97. *See* Electronic Signatures in Global and National Commerce Act § 101(d).
98. For a discussion of the relationship between state law and federal legislation such as E-Sign, *see infra* Part IV.
99. UNIF. ELEC. TRANSACTIONS ACT § 15.
100. *Id.* §15(b)(1).
101. *Id*. §15(b)(2).
102. *Id.* § 15(b).
103. *See supra* Part III.A–B.

dures to avoid the effect of the changed or erroneous electronic record if (a) the other party failed to conform to the agreed-upon procedures and (b) the failure to adhere to the agreement caused the non-conforming party to miss the error.[104] Both UETA and E-Sign sanction the use of electronic agents, provided that the e-agent operates consistently with agency principles as determined by the applicable substantive law, and provided the contracting party manifests assent to an agreement.[105] When such mistakes involve electronic agents, UETA also holds harmless the adverse party engaging the agent if the agent does not provide an opportunity for correction or prevention of error, and if the injured party promptly reports the problem.[106] In other instances involving mistake, UETA provides that UCC rules will apply.[107] E-Sign, by contrast, is silent on the issue of mistake.

E-Sign authorizes "electronic negotiable instruments" for the limited circumstances of promissory notes secured by real property where the issuer expressly agrees to electronic records, and where security systems are "reliably establish[ed]" to ensure that only one person can control its access and use.[108] E-Sign also clarifies that the McCarran-

104. Section ten of UETA reads in part:

> If the parties have agreed to use a security procedure to detect changes or errors and one party has conformed to the procedure, but the other party has not, and the nonconforming party would have detected the change or error had that party also conformed, the conforming party may avoid the effect of the changed or erroneous electronic record.

UNIF. ELEC. TRANSACTIONS ACT § 10(1).

105. Electronic Signatures in Global and National Commerce Act § 101(h), 15 U.S.C. § 7001(h) (2000); UNIF. ELEC. TRANSACTIONS ACT § 14.

106. Regarding error, UETA states:

> [I]n an automated transaction involving an individual, the individual may avoid the effect of an electronic record that resulted from an error made by the individual in dealing with the electronic agent of another person if the electronic agent did not provide an opportunity for the prevention or correction of the error and, at the time the individual learns of the error, the individual:
>
> (A) promptly notifies the other person of the error and that the individual did not intend to be bound by the electronic record received by the other person;
>
> (B) takes reasonable steps, including steps that conform to the other person's reasonable instructions, to return to the other person or, if instructed by the other person, to destroy the consideration received, if any, as a result of the erroneous electronic record; and
>
> (C) has not used or received any benefit or value from the consideration, if any, received from the other person.

UNIF. ELEC. TRANSACTIONS ACT § 10(2).

107. *Id.* § 10 & cmt. 7.

108. Electronic Signatures in Global and National Commerce Act § 201, 15 U.S.C. § 7021 (2000); *see* Winn & Witte, *supra* note 93, at 7 (discussing this provision further).

Ferguson Act expressly applies to insurance transactions and insulates from liability brokers who enter into electronic contracts at the election of a party they represent, so long as the brokers are not negligent.[109] Apparently throwing a bone to the mutual fund industry, E-Sign authorizes electronic provision of prospectuses for sales literature without any consumer consent.[110] Finally, UETA and E-Sign both have sections that encourage the use of electronic records for government procurement as well as for regulatory and audit functions of both federal and state governments.[111]

Both UETA and E-Sign exempt from coverage transactions governed by the rules in UCC Articles three through nine covering the checking system and paper-based negotiable instruments, and rules addressing letters of credit or investment of securities.[112] E-Sign further exempts adoption, divorce, family law, wills and other testamentary agreements, court orders, and other notices required to be executed pursuant to court orders.[113] E-Sign is silent on electronic records for property agreements, but UETA expressly sanctions e-contracts on such matters.[114]

IV
THE MURKY WATERS OF FEDERAL PREEMPTION OF STATE CONTRACT LAW

The debate surrounding the proper role of federal preemption of state e-signature laws centered on just how far the federal government should further insinuate itself into state contract law in order to create national uniformity in e-contracting.[115] Those arguing for the minimal federal role maintained that contract law is the time-honored province of the states into which the federal government should intrude only for temporary stopgap purposes.[116] Paradoxically, those members of

109. Electronic Signatures in Global and National Commerce Act § 201(j); *see* Winn & Witte, *supra* note 93, at 7–8.

110. Electronic Signatures in Global and National Commerce Act § 104(d)(2).

111. *Id.* § 104; UNIF. ELEC. TRANSACTIONS ACT §§ 17–19. For further discussion, see Winn & Witte, *supra* note 93, at 11.

112. *See* Electronic Signatures in Global and National Commerce Act § 103(a)(3); UNIF. ELEC. TRANSACTIONS ACT § 3 & cmts.

113. Electronic Signatures in Global and National Commerce Act § 103(a).

114. UNIF. ELEC. TRANSACTIONS ACT § 3 cmt. 3.

115. *See Commerce Hearings*, *supra* note 33, at 2 (prepared statement of Rep. John Shadegg).

116. For example, in his opening statement, Rep. Howard Berman argued:

> H.R. 1714, although clearly well-intentioned, is overly broad and reaches deep into the areas of law that throughout this country's history have successfully been left to the States. Laws governing commercial transac-

Congress who argued on behalf of state rights also pushed for the stronger consumer protections that the federal government ultimately provided.[117] Those arguing for a more expansive scope of preemption felt that disparate state standards would stifle e-commerce, as consumers and sellers might refrain from conducting electronic commerce due to uncertainties as to which state rules govern a particular transaction.[118]

A consensus seemed to emerge on one key provision sought by the high tech industry: the need to preempt any state from adopting technology-discriminating laws.[119] But while E-Sign's preemption provisions expressly forbid such discrimination,[120] the reach of preemption beyond that is unclear. Specifically, E-Sign preempts any state law that is not enacted in conformance with NCCUSL's final draft of UETA as of 1999.[121] Thus, many state enactments preceding that date are preempted. E-Sign then specifies that any state laws enacted after the NCCUSL's final draft are invalid if they either discriminate against technologies or are otherwise "inconsistent" with E-Sign.[122] However, E-Sign does permit states to adopt "alternative procedures or requirements for the use or acceptance (or both) of electronic records or electronic signatures to establish the legal effect,

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> tions and contracts are fundamentally successes of our legal system, notably through the adoption of every State of the UCC. I urge continued adherence to this model.
>
> I agree there may be a need for Federal law to fill in where State law has yet to develop, but this legislation goes beyond that. Through circular drafting and contradictory provisions, this bill imposes in perpetuity Federal law on the States, even where they adopt the Uniform Electronic Transaction Act.

Judiciary Hearings, *supra* note 10, at 6 (statement of Rep. Berman); *see also* H.R. REP. NO. 106-341, pt. 2, at 17–19 (1999) (dissenting views of Rep. Howard Coble, Subcomm. Chairman) ("I believe we must carefully balance the interests of the States with the need for national uniformity and certainty . . . .").

117. *See, e.g.*, *Judiciary Hearings*, *supra* note 10, at 6 (statement of Rep. Berman) ("[W]e must answer the question of what will be enforceable in court, what will be admissible into evidence, can we be confident that a document was not altered since the time it was executed . . . ."); H.R. REP. NO. 106-341, pt. 2, at 18 (dissenting views of Rep. Coble, Subcomm. Chairman) ("[S]ection 105(e) provides such broad latitude to the States . . . that the allowable exceptions will result in greater uncertainty and less uniformity than exist today.").

118. *See, e.g.*, *Commerce Hearings*, *supra* note 33, at 17 (statement of Michael J. Hogan, Senior Vice President and General Counsel, DLJ*direct*, Inc.).

119. *See, e.g.*, *Judiciary Hearings*, *supra* note 10, at 32–33 (prepared statement of Scott Cooper, Manager, Technology Policy, Hewlett-Packard Co.).

120. Electronic Signatures in Global and National Commerce Act § 102(a), 15 U.S.C. § 7002(a) (2000).

121. *Id*. § 102(a)(1).

122. *Id.* § 102(a).

validity or enforceability of contracts or records" provided that the "not inconsistent" test is met.[123] The quandary for state legislatures is that "not inconsistent" is not defined; it is thus textually unclear whether, for example, weaker protections for consumers and record-retention are merely permissible "alternative procedures and requirements" and therefore valid under E-Sign section 102(a)(2)(A), or invalid under the "inconsistency" standard in E-Sign section 102(a)(1).[124] In addition, there is no severability clause, creating uncertainty as to whether an entire statute or simply an offending provision is pre-empted when a particular section is deemed "inconsistent" with E-Sign.

There are several reasons to believe, however, that the framers may have intended the invitation to adopt "alternative procedures and requirements" to give states considerable latitude on consumer protection. First, E-Sign section 102(a)(1) sanctions the adoption of UETA without expressly specifying any need for additional measures relating to consumers or record-retention in order to conform to federal law.[125] Second, E-Sign explicitly identifies technology discrimination as the only enumerated area that is strictly preempted by the federal enactment.[126] Third, E-Sign elsewhere expressly defers to states on consumer protections, declining, for example, to extend validity to contracts and records concerning vital areas—such as the termination of utility services and insurance benefits—unless the state chooses to do so.[127] Fourth, the invitation of "alternative procedures and requirements" contemplates some ability of states to exercise discretion.[128] Fifth, the colloquy during the congressional consideration of the final conference report of the legislation suggests that the framers contemplated latitude for state actors on these matters. Indeed, three Senators who were key in drafting the legislation—Senators Hollings (D-SC), Wyden (D-OR) and Sarbanes (D-MD)—submitted the following joint statement during that debate:

> Of course, the rules for consumer consent and accuracy and retainability of electronic records under this Act shall apply in all

123. *Id.* § 102(a)(2).

124. The consistency requirement for such alternative procedures and requirements in section 102 is not defined in the statute or in the statement of managers to accompany the conference report, leaving that matter open to argument over congressional intent. For more discussion about possible ambiguities arising from this provision, see generally SAUNDERS & HILLEBRAND, *supra* note 57.

125. Electronic Signatures in Global and National Commerce Act § 102(a)(1).

126. *Id*. §102(a)(2)(A)(ii).

127. *See supra* Part III.A.

128. *See generally* SAUNDERS & HILLEBRAND, *supra* note 57.

> states that pass the Uniform Electronic Transactions Act or another law on electronic records and signatures in the future, unless the state affirmatively and expressly displaces the requirements of federal law on these points. A state which passed UETA before the passage of this Act could not have intended to displace these federal law requirements. These states would have to pass another law to supercede [sic] or displace the requirement of section 101. In a state which enacts UETA after passage of this Act, without expressly limiting the consent, integrity and retainability subsections of 101, those requirements of this Act would remain in effect. The general provisions of UETA, such as the requirement for agreement to receive electronic records in UETA are not inconsistent with and do not displace the more specific requirements of section 101, such as the requirement for a consumer's consent and disclosure in section 101(c).[129]

It should be pointed out, however, that many believe the issue of whether UETA's consumer protection and record-retention provisions are preempted is unsettled.[130] For example, the National Consumer Law Center states, "It is not clear that the displacement of E-Sign works also to displace the consumer protections in E-Sign, because the only legislative history on this issue dictates otherwise."[131] The Center continues, "But, as there is a significant risk that if a state takes action which qualifies for the displacement language in E-Sign, the consumer protections would be avoided, it is essential for the consumer protections to be specifically included in a state's law."[132]

Clearly, federal preemption would void any state law that discriminates against technologies or eliminates the baseline of legitimacy for e-contracts and e-records. While less clear, it does appear that states may have latitude with consumer protection and record-retention issues, and considerable latitude in matters on which E-Sign is largely silent, such as delivery and attribution.[133] This sets up the possibility that subsequent state electronic signature statutes can displace federal consumer protections enacted as part of E-Sign.

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129. 146 CONG. REC. S5230 (daily ed. June 15, 2000) (statement of Sens. Fritz Hollings, Ron Wyden and Paul Sarbanes).

130. *See, e.g.*, Winn & Witte, *supra* note 93, at 8–9.

131. NAT'L CONSUMER LAW CTR., PRESENTATION TO THE ATTORNEYS GENERAL ON THE DYNAMICS OF CONSUMER PROTECTION IN LIGHT OF UETA AND E-SIGN (May 8, 2001), *at* http://www.consumerlaw.org/e_commerce/dynamics_of_consprotection.html (on file with the *New York University Journal of Legislation and Public Policy*).

132. *Id.*

133. For extensive discussion about the zone of preemption resulting from passage of E-Sign, see SAUNDERS & HILLEBRAND, *supra* note 57.

CONCLUSION

E-Sign appears to have developed as a compromise. Republican authors such as Senator Abraham and Congressman Bliley sought strong preemption provisions to prevent government mandates of technology.[134] Democratic authors led by Congressmen Dingell, Markey, Berman and Conyers fought for strong consumer protections.[135] E-Sign appears to have married these two objectives in a manner that proscribes mandates, while providing consumers with far greater protections than those provided for in UETA. However, notwithstanding the "inconsistency" test in E-Sign section 103, those protections may be eliminated if states merely adopt UETA, because state law would then avoid being preempted by E-Sign. In that case, there is a danger that consumers would have inadequate guarantees on informed consent before waiving rights to written records, on technological capacity to access records, and on access to original records. Such loopholes may invite unsavory merchants and others to prey on the less sophisticated, leaving open the unfortunate possibility that consumers will shy away from e-commerce governed by a "buyers beware," UETA-based set of rules.

There is a simple solution to this problem, which would eliminate doubts about preemption and consumer protection while creating more national uniformity. UETA, or alternatively, state legislatures, can merely mimic the consumer consent, technology-provision, and record-retention provisions of E-Sign. There is no federal bar on such actions, and, in fact, such duplication by states of the federal statute will surely avoid litigation and confusion regarding preemption that is otherwise sure to follow. Furthermore, without such enhanced consistency with the federal statute, consumers and others are unlikely to be able to engage with their contracting party on equal footing.

Through E-Sign, a bipartisan Congress balanced concerns that the legislation was either too "pro-consumer" or not "pro-consumer"

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134. *See, e.g.*, Third Millennium Digital Commerce Act, S. 761, 106th Cong. (1999) (enacted) (introduced by Sen. Spencer Abraham). As introduced, S. 761 stated:

> Industry has developed several electronic signature technologies for use in electronic transactions, and the public policies of the United States should serve to promote a dynamic marketplace within which these technologies can compete. Consistent with this Act, States should permit the use and development of any authentication technologies that are appropriate as practicable as between private parties and in use with State agencies.

Id. § 2(7); *see also* Electronic Signatures in Global and National Commerce Act, H.R. 1714, 106th Cong. (1999) (introduced by Rep. Bliley).

135. *See, e.g.*, 146 CONG. REC. H4346–66 (daily ed. June 14, 2000).

enough, and gained the support of members who opposed many proposed consumer protections, as well as the support of the high-tech and business community.[136] The concerns that the regulations are too burdensome are outweighed by the importance of increasing consumer confidence in e-contracts and the interest in minimizing costly litigation that is likely to result if unjust results occur in electronic transactions. Electronic commerce is a convenient and efficient method of increasing worldwide commerce. Meeting its optimal potential, however, will require uniformity of rules that can be understood and utilized by all, most particularly the less technologically sophisticated.

Because E-Sign is a relatively new law, it is yet unclear whether states will resist adopting the consumer provisions. The struggle by lawmakers such as Senators Leahy and Hollings and Congressmen Markey, Berman, and Conyers to place federal consumer protections in the statute was achieved only with a compromise that stopped short of mandating requirements on the states, leaving some confusion as to how much latitude states have in this area.[137] Nonetheless, harmonizing state UETA consumer protections with E-Sign will increase the attractiveness of newcomers to electronic commerce, minimize the opportunities for cheats, and ultimately reduce costly litigation that will surely otherwise result from a "buyers beware" system.

136. *See id.* at H4350 (statement of Rep. Sessions), H4357 (statement of Rep. Dingell), H4360 (statement of Rep. Tauzin); 146 CONG. REC. S5218 (daily ed. June 15, 2000) (statement of Sen. John Kerry) (listing groups supporting S. 761), S5219 (statement of Sen. Leahy). Even though Rep. Bliley and Sen. Abraham were the lead sponsors of the introduced legislation, *supra* note 134, and resisted attempts by Sen. Wellstone and Reps. Conyers and Berman to include the consumer protections, they supported final passage of the legislation that contains those consumer protections. *See* 146 CONG. REC. S5226 (daily ed. June 15, 2000) (statement of Sen. Abraham); 146 CONG. REC. H4351–52 (statement of Rep. Bliley), H4363 (statement of Rep. Berman), H4365 (statement of Rep. John Conyers).

137. *See, e.g.*, 146 CONG. REC. S5229 (statement of Sen. Sarbanes); SAUNDERS & HILLEBRAND, *supra* note 57.