Campbell Law Review

Volume 30 Issue 1 Fall 2007

Article 2

October 2007

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Recommended Citation

Richard A. Lord, A Primer on Electronic Contracting and Transactions in North Carolina, 30 Campbell L. Rev. 7 (2007).

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A Primer on Electronic Contracting and Transactions in North Carolina

RICHARD A. LORD*

Introduction

Congress passed the Electronic Signatures in Global and National Commerce Act (E-SIGN) in 2000 for the purpose of validating electronic¹ signatures,² contracts and other records.³ E-SIGN was passed not so much to advance the law governing electronic commerce as to acknowledge the developments in technology that had occurred during the prior two decades. The drafters recognized that business people during that time had outpaced, and would continue in the foreseeable future to outpace, the law's development, and sought to ensure that future technological developments would not be impeded by the slower development of the law. Following the passage of E-SIGN, and pursuant to its provisions,4 the District of Columbia and most of the states, including North Carolina,⁵ passed the Uniform Electronic Transactions Act (UETA). The four jurisdictions that did not do so passed other legislation to comply with E-SIGN.6 Somewhat earlier, during the technological revolution of the 1990s, the National Conference of Commissioners on Uniform State Laws (NCCUSL) promulgated, and later revised, the Uniform Computer Information

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^{1. 15} U.S.C.A. § 7006(2) (West 2007) (defining "electronic" as relating to technology with electrical, digital, magnetic, wireless, optical, electromagnetic or similar capabilities).

^{2. § 7006(5) (}defining "electronic signature" as an electronic sound, symbol or process attached to or logically associated with a contract or other record and executed or adopted with intent to sign).

^{3. § 7006(9) (}defining "record" as information inscribed on a tangible medium or stored in an electronic medium or other medium that is retrievable in perceivable form).

^{4.} See § 7002(a)(1).

^{5.} N.C. GEN. STAT. §§ 66-311 to 66-330 (2005 & Supp. 2006).

^{6.} Unif. Elec. Transactions Act, 7A U.L.A. 88 (Supp. 2006) (displaying table of enacting jurisdictions.). Georgia, Illinois, New York and Washington have not adopted UETA.

Transactions Act (UCITA), designed to govern the creation, modification and transfer of electronic information. UCITA had an even more distinguished pedigree than UETA, having arisen out of the aborted joint effort of NCCUSL and the American Law Institute (ALI) to revise the Uniform Commercial Code (UCC) to include within its scope computer information. However, UCITA failed to garner support from the states and has been enacted by only two jurisdictions. Indeed, North Carolina and at least three other states have passed what might be called "anti-UCITA" statutes, essentially invalidating any choice of law provision in a contract that designates a UCITA-enacting state's law as the law that governs the parties' contract. UCITA is therefore of lim-

^{7.} See U.C.I.T.A. § 103 (2000); Revised U.C.I.T.A. §103 (2002).

^{8.} See Roger C. Bern, "Terms Later" Contracting: Bad Economics, Bad Morals, and a Bad Idea for a Uniform Law, Judge Easterbrook Notwithstanding, 12 J.L. & POL'Y 641, 773-96 (2004) (critiquing the so-called "rolling" or "layered" contract theory where terms are presented after the sale, which is expressly adopted in UCITA, and containing a brief history of the development of the Act); Amelia H. Boss, Taking UCITA on the Road: What Lessons Have We Learned?, 7 ROGER WILLIAMS U. L. REV. 167 (2001) (considering the drafting history and the effect UCITA would have on international law, specifically on the Convention on the International Sale of Goods (CISG)); Bruce H. Kobayashi & Larry E. Ribstein, Uniformity, Choice of Law and Software Sales, 8 GEO. MASON L. REV. 261 (1999) (considering the history of UCITA and the pros and cons of uniformity, and concluding that allowing the parties to choose the law that will govern software contracts will be more efficient and result in better outcomes than a uniform law); Maureen A. O'Rourke, An Essay on the Challenges of Drafting a Uniform Law of Software Contracting, 10 Lewis & Clark L. Rev. 925 (2006) (considering briefly the history of UCITA in both the ALI and NCCUSL and the current effort by the ALI to promulgate its Principles of the Law of Software Contracts); Linda J. Rusch, A History and Perspective of Revised Article 2: The Never Ending Saga of a Search for Balance, 52 SMU L. Rev. 1683 (1999) (reflecting on the revision process that led to the development of Article 2B and ultimately to UCITA); Robert E. Scott, The Rise and Fall of Article 2, 62 LA. L. REV. 1009, 1047-60 (2002) (discussing the history of Article 2 of the UCC and the development of the Article 2B process and its transformation into UCITA); David A. Szwak, Uniform Computer Information Transactions Act [U.C.I.T.A.]: The Consumer's Perspective, 63 La. L. Rev. 27 (2002) (containing a strong critique of UCITA, discussing in passing its history and development, and discussing in detail its substantive provisions as they affect consumers); J. Thomas Warlick, IV, A Wolf in Sheep's Clothing? Information Licensing and De Facto Copyright Legislation in U.C.C. 2B, 45 J. COPYRIGHT SOC'Y USA 158 (1997) (critically discussing the then extant attempt to codify what eventually became UCITA as part of the UCC).

^{9.} Md. Code Ann., Com. Law §§ 22-101 to -816 (West 2007); Va. Code Ann. §§ 59.1-501.1 to .1-509.2 (West 2007).

^{10.} See N.C. Gen. Stat. § 66-329 (2005); IOWA CODE ANN. § 554D.125 (West 2007); Vt. Stat. Ann. tit. 9, § 2463a (2007); W. Va. Code Ann. § 55-8-15 (LexisNexis Supp. 2007).

ited importance and will be discussed only in connection with the anti-UCITA legislation passed by the North Carolina Legislature.

By contrast, the other two Acts, E-SIGN and UETA, are dramatically important and constitute enactments that every practicing lawyer should be aware of, if not intimately familiar with. Because of this, and because, thus far, few cases exist that explore or even apply either of these statutes, this article will attempt to acquaint the North Carolina bench and bar with both Acts. As the seasoned lawyer told the novice, however, "Everyone knows what's written on the front of the Supreme Court Building: 'Equal Justice Under Law'; but few lawyers are familiar with the much more important words etched into the side of that building, perhaps by a losing party: 'Read the damn statute.'" That advice is apropos here; what follows is a synopsis and brief analysis of these important statutes, but the lawyer concerned with the increasingly common situations involving electronic transactions is admonished to consider the statutes carefully to determine whether, and to what extent, they might affect a particular transaction.

I. AN OVERVIEW OF E-SIGN

E-SIGN provides that irrespective of any statute, rule of law or regulation (other than E-SIGN itself), if a transaction¹¹ is either in or affects interstate or foreign commerce any signature, contract or other record of that transaction is not to be denied legal effect, validity or enforceability solely because it is in electronic form.¹² This language indicates a Congressional intent to draft E-SIGN as broadly as permissible under the Commerce Clause of the Constitution.¹³ Moreover, any

^{11. 15} U.S.C.A. § 7006(13) (West 2007) (defining "transaction" as any action that relates to the conduct of business, consumer or commercial affairs between two or more persons, and includes sales, leases, exchanges, licenses or any other dispositions of personal property, including goods, intangibles and services, or any combination of goods, intangibles and services. The term also includes sales, leases, exchanges and other dispositions of real estate, as well as any combination of those activities involving real property. The term "person" as used in the Act is defined broadly in 15 U.S.C.A. § 7006(8) (West 2007) to include any legal entity, the statute specifying various entities that are specifically included within its scope).

^{12. § 7001(}a)(1).

^{13.} See, e.g., Allied-Bruce Terminix Cos. v. Dobson, 513 U.S. 265 (1995) (indicating that the Federal Arbitration Act is drafted reflecting a congressional intent to achieve the limits of the Commerce Clause); United States v. Lopez, 514 U.S. 549 (1995) (indicating the limits of the Commerce Clause, suggesting that Wickard v. Filburn, 317 U.S. 111 (1942), is at the edge of those limits, and holding that the Gun-Free School Zones Act exceeded Congress' power to regulate commerce when it penalized possession of a gun on school grounds, but neither regulated interstate commerce nor required that possession of the weapon be connected in any way to

contract relating to that transaction may not be denied legal effect, validity or enforceability solely because the parties have used an electronic signature or an electronic record¹⁴ in the formation of the contract.¹⁵ These opening provisions of E-SIGN make clear that Congress did not want state enactments (or for that matter, other federal legislation) to treat electronic transactions and signatures unfavorably solely because of their electronic nature or form. As will be seen, other provisions of E-SIGN do limit the use of electronic technology to adversely affect certain consumers and other parties, but a major goal of the statute is to ensure that electronic transactions and signatures are to be considered as effective as traditional manual transactions and signatures.

Indeed, another section of the Act restricts the states' ability to modify, limit or supersede these provisions, and the states may only do so by enacting either UETA ¹⁶ (which, as noted above, all but four states and the District of Columbia have done)¹⁷ or by enacting other legislation consistent with E-SIGN's goals¹⁸ and which specifically makes reference to E-SIGN.¹⁹ Moreover, states that comply by enacting UETA may not except from its scope, as UETA otherwise allows,²⁰ other state laws that are inconsistent with E-SIGN.²¹

commerce); Wickard v. Filburn, 317 U.S. 111 (1942) (affirming congressional power to regulate the growing of wheat, even though used for personal consumption or on the grower's own farm, because of wheat's substantial impact on interstate commerce. The Court stated, "Congress may properly have considered that wheat consumed on the farm where grown, if wholly outside the scheme of regulation, would have a substantial effect in defeating and obstructing its purpose to stimulate trade therein at increased prices." *Id.* at 128-129).

- 14. 15 U.S.C.A § 7006(4) (West 2007) (defining an "electronic record" as any contract or other record created, generated, sent, communicated, received or stored by electronic means).
 - 15. § 7001(a)(2).
- 16. § 7002(a)(1); Unif. Elec. Transactions Act, 7A U.L.A 225 (2002 & Supp. 2006); N.C. Gen. Stat. §§ 66-311 to 66-330 (2005 and Supp. 2006).
- 17. Unif. Elec. Transactions Act, 7A U.L.A. 88 (Supp. 2006) (displaying table of enacting jurisdictions). Georgia, Illinois, New York and Washington have not adopted UETA.
- 18. See 15 U.S.C.A. § 7002(a)(2)(A)(i)-(ii) (West 2007); N.C. GEN. STAT. § 66-328 (entitled "Procedures consistent with federal law," and setting forth alternative procedures or requirements for giving legal effect to electronic records in electronic transactions consistent with 15 U.S.C.A. § 7002(a)).
 - 19. 15 U.S.C.A.§ 7002(a)(2)(B) (West 2007).
- 20. § 7002(a)(1); Unif.Elec.Transactions Act § (3)(b)(4), 7A U.L.A. 235 (2002); N.C. Gen. Stat. § 66-313.
 - 21. § 7002(a)(1); N.C. GEN. STAT. § 66-313.

Other than that prohibition, E-SIGN is essentially neutral. Thus, the Act provides that it does not alter, limit, or otherwise affect the requirements of any other law except to the extent that the other law requires contracts or other records to be written, signed or in non-electronic form.²² Most importantly, the Act does not require anyone to agree to the use or acceptance of electronic records or signatures, other than a governmental agency, with respect to a record other than a contract to which it is a party.²³

As suggested above, É-SIGN permits the states to treat consumers differently from non-consumers and also offers its own protection to consumers as a class. Thus, E-SIGN specifies that if a statute, regulation or other rule of law requires written information ²⁴ regarding a transaction to be provided or made available to a consumer.²⁵ the information may be provided or made available electronically, provided that the consumer has consented to the use of an electronic record, has not withdrawn that consent,26 and further, before consenting, received certain mandated statutory disclosures. This essentially gives the consumer the option of paper or electronic format and provides notice that any consent given may be withdrawn, and also specifies the effect of the withdrawal of consent.²⁷ The disclosures must also indicate the transactions to which the consent relates, 28 as well as how the consumer may withdraw any consent given, 29 and information regarding how the consumer can obtain a paper copy of the information, including any cost to be incurred by the consumer of she chooses to obtain a paper record.³⁰ These provisions have essentially two purposes: First, they mesh E-SIGN with other state and federal laws that require notices to be sent to consumers, such as disclosure requirements under the banking or securities laws or vari-

^{22. § 7001(}b)(1).

^{23. § 7001(}b)(2).

^{24. § 7006(7) (}defining "information" to mean data, text, images, sounds, codes, computer programs, software, databases or the like).

^{25. 15} U.S.C.A. § 7006(1) (West 2007) (defining "consumer" to mean an individual or his or her legal representative who obtains products or services to be used primarily for personal, family, or household purposes, in a transaction to which the Act applies).

^{26. § 7001(}c)(1)(A); N.C. GEN. STAT. § 66-327(c)(1) (2005) (specifying, in language mirroring that of the federal Act, what constitutes consumer consent).

^{27.} \S 7001(c)(1)(B)(i) (including provision for fees charged to the consumer as a consequence of withdrawn consent); N.C. Gen. Stat. \S 66-327(c)(2)a-b (prohibiting the imposition of fees as result of consumer's withdrawn consent).

^{28. § 7001(}c)(1)(B)(ii); N.C. GEN. STAT. § 66-327(c)(2)c.

^{29. § 7001(}c)(1)(B)(iii); N.C. GEN. STAT. § 66-327(c)(2)d.

^{30. § 7001(}c)(1)(B)(iv); N.C. GEN. STAT. § 66-327(c)(2)e.

ous other federal and state consumer protection statutes, by permitting these notices to be given electronically; but second, to allow the consumer who is uncomfortable in the electronic universe or who otherwise desires to transact her affairs via a more traditional medium to choose to continue to use paper as her medium of choice.

In addition, the consumer must be told, in advance of consenting to the use of electronic notices, what hardware and software requirements exist for access to and retention of electronic records.³¹ and the consent must be "proved", meaning, the consumer must consent or confirm her consent in a manner that reasonably indicates that she was in fact able to access the information in its electronic form.³² Moreover, if the hardware or software requirements subsequently change, the consumer is entitled to be notified of the new requirements and must be given the right to withdraw her consent as to future notices without penalty, and her capacity to obtain electronic records with the new computer requirements must once again be proved.³³ These requirements reflect the fact that few consumers have a "technology budget", whereas even small businesses typically upgrade their computer technology on a regular basis. Given the rapid technological changes of the last decade, many "state of the art" computers bought just a few short years ago are now largely obsolete, an obsolescence most unsophisticated consumers might not even realize.³⁴ As such,

^{31. 15} U.S.C.A. \S 7001(c)(1)(C)(i) (West 2007); N.C. Gen. Stat. \S 66-327(c)(3) (2005).

^{32. § 7001(}c)(1)(C)(ii); N.C. GEN. STAT. § 66-327(c)(3).

^{33. § 7001(}c)(1)(D)(i)-(ii) (West 2007); N.C. GEN. STAT. § 66-327(c)(4).

^{34.} Although I try throughout this Article to limit the use of anecdotal evidence in general, and personal anecdotes in particular, in some instances, both seem particularly appropriate, and this is one such instance. While serving as a Visiting Professor at the University of Missouri-Kansas City (UMKC) in the 2004-2005 academic year I was supplied an office computer by the UMKC Law School for use in my Kansas City apartment. Because I had both a UMKC-supplied desktop at work and a Campbell-supplied notebook for work at home, my "personal" desktop computer, which I had bought in 2000, remained unused. Upon my return to North Carolina in the summer of 2005, Campbell replaced my laptop and office computer with a laptop docking station, but I still used my home desktop which, it will be recalled, I had bought in 2000, and was therefore all of five years old. When it was new, the desktop had been "state of the art", containing virtually every bell and whistle available for a desktop computer in 2000. Indeed, it cost somewhere in the \$2,500-\$3,000 range and was touted as "obsolete-proof, guaranteed" (orally, of course, and before the signed contract was executed), with a full one-year warranty (rather than the "standard" ninety day warranty). And, to be sure, the 2000 desktop performed without any warranty covered problems. Nevertheless, upon my return from UMKC, my son who is far more computer savvy than I, immediately started pointing out differences in my five year old, formerly "state of the art" computer. Indeed, while my desktop did

whereas the consumer might be satisfied with his "ancient" equipment-especially if he uses it principally to send and receive email, perform word processing, maintain personal financial records and access the Internet—his once cutting-edge equipment might well be a "computer dinosaur"; while the businesses that he consented to deal with electronically when his equipment was new have kept up technologically, the consumer has fallen behind, and his equipment now lacks the capability to communicate adequately with that of the business. Requiring the company to notify the consumer of new hardware or software requirements and, more importantly, to "prove" the consumer's ability to obtain and access information from the business's upgraded systems-ensures that the consumer will not be taken advantage of either inadvertently or purposely. And allowing the consumer to withdraw his consent without the assessment of any penalty that might otherwise, by contract, be imposed (after all, there are costs to businesses when they must shift from electronic to more traditional media, costs which it can generally shift to the customer) is only fair and reasonable since, after all, it is the company's changes in equipment that caused the incompatibility. The requirement that the business make known to the consumer the new equipment requirements (hardware or software) and guarantee that the consumer can either continue to effectively access, obtain and retain or use the information. or, in the alternative, withdraw his consent as to future notices without penalty strikes the appropriate balance to maximize the likelihood of continued technological development while at the same time placing the onus of that development, and the costs associated with its implementation, on the party in the best position to bear and spread those costs.

E-SIGN also makes clear that other laws requiring disclosure to any consumer are not affected by the statute insofar as their content or

everything that it had always done, and while it did new things—things I had never before needed it to do but which now seemed essential, it did these things much more slowly than my son's new desktop. Moreover, there were numerous things my desktop simply did not (would not) do; if it played videos, it did so slowly, with glitches and often without sounds; it would not permit me to view all digital photos or print them on photographic paper. Long attachments often could not be retrieved—they were too large for my system; and many other features the new laptop did, my five-year old desktop did not. No loss, you say, since these functions were not among those I used. But the fact—or what I'd been told was a fact—that my desktop was "top of the line" and guaranteed against obsoleteness, was clearly not as promised. And, to the extent that I am better educated and more aware of my rights (and the law governing these) than other consumers, one must wonder whether even greater protections need to be offered than merely the proof and compatibility required by the current statute!

timing is concerned;³⁵ so that, for example, the timing and content of Truth in Lending Act disclosures are not affected.³⁶ E-SIGN also specifies that if any prior law expressly requires a record to be provided or made available by a specified method requiring verification or acknowledgement of receipt then this may be done electronically as long as the means used provides a verification or acknowledgement of receipt. ³⁷ For example, statutes that pre-date E-SIGN and require notices to be sent to a consumer with the consumer verifying or acknowledging her receipt are affected by E-SIGN insofar as the notice and verification or acknowledgement are concerned; verification or acknowledgement by e-mail would be permissible if the program used to send the notice specified that the sender desired to be notified of the receipt and the consumer, by clicking her mouse, could verify or acknowledge the receipt.

If the party proposing the use of electronic communication—and this will typically be the business in a consumer/business transaction—fails to obtain or confirm and "prove" the consumer's consent, this alone will not affect the effectiveness, validity or enforceability of any contract executed by the consumer.³⁸ Whether the transaction—say, an electronic contract entered into between a North Carolinian and a business located in North Carolina—will be given effect or declared invalid or unenforceable as a result of the failure to obtain or confirm and prove the consumer's consent will depend upon other rules of North Carolina contract law, but the failure to obtain or confirm and prove the consent of the consumer will certainly be a factor taken into account by the courts. Thus, it is to be expected that most parties proposing the use of electronic records or transactions, and especially companies that routinely deal with consumers, will keep a record of the consumers' consents with which they deal.

If the consumer withdraws her consent after having given it, this also will not affect the effectiveness, validity or enforceability of electronic records provided or made available before the withdrawal of consent; and after it receives the withdrawal of consent, the provider of the record has a reasonable time to implement the withdrawal.³⁹ Thus, for example, if a consumer consented to receive notices from a business and then changed her mind and withdrew her consent, the business

^{35. § 7001(}c)(2)(A).

^{36.} See \$7001(c)(2)(A); Truth in Lending Act, 15 U.S.C.A. §§ 1601-1693r (West 2007).

^{37. § 7001(}c)(2)(B).

^{38. 15} U.S.C.A. § 7001(c)(2)(B)-(3) (West 2007).

^{39. § 7001(}c)(4).

would have a reasonable time to implement her withdrawal of consent; even if the business failed to heed the withdrawal, that, in itself, would not void later notices sent by the company. Rather, whether these later notices would be deemed effective would depend on other law, and presumably, this would depend on such questions as whether the consumer actually received the electronic notice or other record, whether her computer had the ability to read it, whether she in fact read it and so forth. Additionally, E-SIGN specifies that a provider's failure to notify the consumer of any hardware or software changes that impede the consumer's access to electronic records may be treated, at the consumer's election, as a withdrawal of consent.⁴⁰

If a consumer has consented to the receipt of electronic records under any other law passed prior to E-SIGN, the prior consent is not vitiated, and the provider need not comply with the foregoing provisions of E-SIGN. 41 In other words, when consent already exists, it need not be given again under E-SIGN; a company that has already received the consumer's agreement to do business electronically need not go through the motions of once again obtaining and then proving or confirming the consent. However, unless otherwise provided by applicable law, oral communications or recordings of oral communication are not deemed to be a record for purposes of the disclosure requirements.⁴² Thus, if a company obtained the consumer's consent through a telephone conversation which was recorded by the company—as is routinely done during customer service calls—that recorded consent does not constitute a prior consent that retains vitality under E-SIGN, and the company would have to obtain the consumer's proven consent to receive communications electronically under the Act.

E-SIGN also governs records retention, and provides that if any other law requires contracts or other records to be retained, that requirement may be met by electronic retention.⁴³ Such retention is permitted so long as long as the electronic record accurately reflects the information set forth in the contract or other record,⁴⁴ the electronic record remains accessible to those allowed to access it according to the law for the period required by the law, and they can accurately

^{40.} Id. .

^{41. § 7001(}c)(5).

^{42. § 7001(}c)(6). North Carolina adopted essentially the same language. N.C. Gen. Stat. § 66-327(e) (2005) ("An oral communication or a recording of an oral communication shall not qualify as an electronic record for purposes of this section, except as other[wise] provided under applicable law.").

^{43. 15} U.S.C.A. § 7001(d)(1) (West 2007).

^{44. § 7001(}d)(1)(A).

reproduce it by printing, transmission or otherwise.⁴⁵ However, excepted from the retention requirement is any "information whose sole purpose is to enable the contract or record to be sent, communicated, or received."⁴⁶ Thus, an e-mail address, for example, would not have to be kept, even if the information contained within the e-mail would have to be retained. On the other hand, if other law requires a contract or record to be provided, made available or retained in its original form, that law is satisfied with an electronic record that meets the above specifications.⁴⁷ Moreover, E-SIGN specifically provides that laws requiring the retention of checks are satisfied by electronic records containing the information on the front and back of the check that meet the foregoing specifications.⁴⁸ This meshes, for example, with provisions of the UCC that require banks to retain and make available to their customers paid checks.⁴⁹

E-SIGN also provides, however, that notwithstanding the general rule that electronic records and contracts are permissible, effective, valid and enforceable, if a law requires that a contract or other record must be in writing, an electronic record may be denied effect if it is not in a form that is capable of being retained and accurately reproduced for later reference by all parties entitled to retain the contract or other record.⁵⁰

The statute by its terms does not affect the proximity of any warning, notice, disclosure or other record required by statute or other law to be affixed, posted or displayed on a record or writing.⁵¹ In other words, if other law requires that a writing have a particular notice or disclosure on it in a specific location, E-SIGN does not operate to modify that other law. However, if a law requires that the signature or record of a transaction be notarized or acknowledged, verified or made under oath, that requirement can be satisfied by an electronic signature of the notary or other signatory, if that signature, together with any other information required by the law to accompany that signature, is attached to or logically associated with the signature or

^{45. § 7001(}d)(1)(B).

^{46. § 7001(}d)(2).

^{47. § 7001(}d)(3).

^{48. § 7001(}d)(4).

^{49.} E.g., N.C. GEN. STAT. § 25-4-406(b) (2005) which provides that a bank, if it does not return items (checks) to its customer, "shall either retain the items or, if the items are destroyed, maintain the capacity to furnish legible copies of the items until the expiration of seven years after receipt of the items."

^{50. 15} U.S.C.A. § 7001(e) (West 2007).

^{51. § 7001(}f).

record.⁵² Thus, deeds or other formal documents that require a notarized signature may be verified electronically, as long as the notary or other official, such as a witness, electronically signs the document, and the signature is accompanied by appropriate information.⁵³ Indeed, North Carolina has adopted the Electronic Notary Act,⁵⁴ which specifically validates electronic notarial acts under specified circumstances.

One of the most important provisions of E-SIGN is the section that provides that contracts or other records may not be denied effect, validity or enforceability because they were formed through "electronic agents", 55 so long as the action of the electronic agent is legally attributable to the person who is to be bound.⁵⁶ Thus, computers that communicate with one another without the aid (after initial programming) of human intervention may engage in contracting. Those contracts will be given effect as long as the person authorizing the contract is legally responsible for having set up the machine(s) to engage in contracting in the first instance. If, for example, a North Carolina business programmed its computer to accept orders placed by a particular customer, or from that particular customer's Internet site, an acceptance generated in response to an order from that customer would be valid and enforceable, since the operation of the electronic agent would be attributable to the North Carolina business. If there were some invalidating cause alleged-mistake, fraud or the like-E-SIGN would not provide the rule of law for determining its effect; rather, E-SIGN simply validates the operation of electronic agents, leaving to other law the effect of their actions.

Congress specifically provided that it intended E-SIGN to govern the business of insurance,⁵⁷ and therefore insurance contracts, as well as North Carolina's statutes regulating the insurance industry, will be impacted by E-SIGN. This provision is necessary because the business of insurance has generally been relegated to the states by other federal law.⁵⁸ However, E-SIGN also provides one substantive rule regarding an insurance agent's liability on an electronic contract: an insurance agent or broker who acts under the direction of a party and enters into

^{52. § 7001(}g).

^{53.} Id.

^{54.} N.C. GEN. STAT. § 10B-101 (2005)

^{55. 15} U.S.C.A. § 7006(3) (West 2007) (defining an "electronic agent" as a computer program or an electronic or other automated means used independently to initiate an action or respond to electronic records or performances in whole or in part without review by an individual at the time of the action or response.).

^{56. § 7001(}h).

^{57. § 7001(}i).

^{58.} McCarran-Ferguson Act, 15 U.S.C.A. §§ 1011-15 (West 2007).

a contract by means of an electronic record or signature is not liable for any deficiency in the electronic procedures agreed to by the parties under that contract as long as the agent or broker has not been negligent, reckless or intentionally tortious, the agent or broker was not involved in developing or establishing the electronic procedures, and the agent or broker abided by those electronic procedures without deviation.⁵⁹ While the company for which the agent or broker works may be liable for the deficiencies that exist, the agent or broker is not.⁶⁰

Other sections of E-SIGN provide exceptions to or exemptions from the statute that carve out significant areas of North Carolina law from the scope of E-SIGN for reasons that should be readily apparent. Thus, E-SIGN's provisions are inapplicable to any contract or record to the extent that it is governed by a statute, regulation or other rule of law governing the creation and execution of wills, codicils or testamentary trusts, 61 or state statutes or other rules or regulations governing adoption or divorce or other matters of family law,62 or finally, the Uniform Commercial Code as in effect in North Carolina, except for specified sections or articles, including Articles 2 and 2A.63 As to the first two of these exemptions or exceptions, the states have historically had considerable latitude when it comes to decedents' estates and domestic relations. Given this, a federal law-especially a broad federal law like E-SIGN that is designed to validate electronic records and signatures—could impermissibly intrude on the states' prerogative. Congress therefore wisely chose to leave these two areas of law to the states to determine whether and to what extent to permit electronic transactions.

The effect of the last exception or exemption is more subtle; E-SIGN does not apply to Articles 1, 3, 4, 4A, 5, 7, 8 or 9 of the UCC as enacted in North Carolina, in large part because these Articles have been amended recently to take into account electronic contracting and have certain provisions authorizing electronic transactions, whereas Articles 2 and 2A, dealing with the sale and lease of goods, have not

^{59. 15} U.S.C.A. § 7001(j) (West 2007).

^{60. § 7001(}i).

^{61. 15} U.S.C.A. § 7003(a)(1) (West 2007).

^{62. § 7003(}a)(2).

^{63. § 7003(}a)(3).

been substantially revised or amended. Thus, E-SIGN does apply to the sale or lease of goods but not, for example, to secured transactions.⁶⁴

E-SIGN also does not apply to court orders, notices or official court documents, such as briefs, pleadings and other writings that are required to be executed in connection with judicial proceedings, 65 though North Carolina's Appellate and Business Court rules nevertheless permit filings and other writings to be electronically submitted.⁶⁶ Also, E-SIGN does not apply to notices regarding the termination or cancellation of utility services, 67 or notices regarding default, acceleration, repossession, foreclosure or eviction, or the right to cure, under a credit agreement secured by one's principal residence, or a lease of that residence.⁶⁸ The obvious reason for excluding these transactions from the scope of E-SIGN (and, as will be discussed subsequently, from the scope of UETA) is to offer protection to individuals—typically but not exclusively the least sophisticated and poorest within society against these types of events, which often result in the loss of homes or other necessities of life. Moreover, the statute is not applicable to notices regarding the cancellation or termination of health insurance or benefits or life insurance benefits other than annuities.⁶⁹ Again, health insurance is considered essential by most people, and life insurance may provide a security for widows or widowers and children following a loved one's death, so the exclusion is not surprising; indeed, it meshes well with North Carolina constitutional and statutory provisions that exempt life insurance from being reached by creditors under some circumstances.⁷⁰ Nor is E-SIGN applicable to any notice of product recalls or material failures of products that risk endangering health or safety. 71 Once again, product recalls that have the potential to affect adversely the health of consumers should be made in a manner that ensures the receipt of notices; and while electronic communications

^{64.} E-SIGN also applies to renunciation or waiver under former N.C. GEN. STAT. § 25-1-107 and to the Statute of Frauds provision formerly found in N.C. GEN. STAT. § 25-1-206, which is still in effect in about half the jurisdictions in the United States.

^{65. 15} U.S.C.A. § 7003(b)(1) (West 2007).

^{66.} See N.C. R. App. P 26(a)(2); N.C.B.C Rule 5. See also Deborah Leonard Parker, Electronic Filing in North Carolina: Using the Internet Instead of the Interstate, 2 J. App. Prac. & Process 351, 352 (2000).

^{67. 15} U.S.C.A. § 7003(b)(2)(A) (West 2007).

^{68. § 7003(}b)(2)(B).

^{69. § 7003(}b)(2)(C).

^{70.} See N.C. Const. art. X, § 5; N.C. Gen. Stat. § 1C-1601(a)(6), both of which exempt from execution life insurance for the sole use and benefit of one's spouse and children.

^{71. 15} U.S.C.A § 7003(b)(2)(D) (West 2007).

are now dependable, Congress apparently believed that notices with that potential should not be left to a technology still in its infancy. Finally, the statute is not applicable to any document required to accompany the transportation or handling of hazardous or toxic materials or pesticides, or other dangerous material;⁷² these health and safety concerns were apparently believed to outweigh the desire to foster this new technology.

Several of the remaining E-SIGN sections provide for review and evaluation of the foregoing exceptions or exemptions by federal officials and specify the effect of the Act on state and federal governments. Generally speaking, administrative and regulatory agencies retain their authority to make rules or issue regulations, with the caveat that they generally must be consistent with the purposes of the Act.⁷³

Beyond these "housekeeping" requirements, the next most significant aspect of E-SIGN, insofar as it involves the law most likely to be encountered by the North Carolina practitioner, is contained in Subchapter II, involving transferable records. The statute defines a "transferable record" as an electronic record that would be a note under Article 3 of the UCC if it were in writing, where the issuer of the electronic record has expressly agreed that it is a transferable record and which relates to a loan secured by real property. The Act specifies that a transferable record may be executed by an electronic signature. The point of this provision is to mesh with state laws such as UETA, to be discussed below, and North Carolina's versions of UCC Articles 3 and 9, to the extent that they would permit the use of electronic negotiable instruments. The balance of the Subchapter concerns itself with whether and when one has "control" of the transferable record and can qualify as a holder or holder in due course of the record, the drafters of

^{72. § 7003(}b)(3).

^{73. 15} U.S.C.A § 7003(c) (West 2007); 15 U.S.C.A. § 7004 (West 2007).

^{74. § 7021(}a)(1).

^{75.} Id.

^{76.} Currently, there is no mention in UCC Article 3 or Article 9 of electronic notes; but see N.C. GEN. STAT. §§ 25-9-102(a)(11) and (31), defining respectively "chattel paper" and "electronic chattel paper." The former definition provides inter alia that chattel paper means a record that evidences both a monetary obligation and a security interest in specific goods, and concludes by stating that when "a transaction is evidenced by records that include an instrument or series of instruments, the group of records taken together constitutes chattel paper"; and "electronic chattel paper" is then defined to mean "chattel paper evidenced by a record or records consisting of information stored in an electronic medium." Thus, by inference, since Article 9 includes within its scope electronic chattel paper, which can be comprised of an instrument or series of instruments, Article 9 would also govern electronic notes. U.E.T.A. makes this explicit, as will be discussed subsequently.

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E-SIGN essentially adopting the concept of "control" as it is used in Article 9.⁷⁷ While E-SIGN does not apply to Article 3 or 9 of North Carolina's version of the UCC, the effect of that provision is to make the person with control over a transferable record the equivalent of a holder in due course of a traditional promissory note that would be subject to Article 3 (or Article 9) of the UCC.

Thus, under E-SIGN, a person has "control" of a transferable record if there is a system employed for evidencing the transfer of any interest in the record that reliably establishes that person as the person to which the record was issued or transferred.⁷⁸ That system, in turn, must be one in which the transferable record is created, stored and assigned in such a manner that there is a single authoritative copy of the transferable record which is unique, identifiable and, in general, unalterable,79 except that the record or copies may be altered to add or change an identified assignee with the consent of the person with control, 80 so long as any copies of the authoritative copy are readily identified as copies, 81 and any revision of the authoritative copy is readily identifiable as authorized or unauthorized.82 Beyond that, the authoritative copy must identify the person asserting control as the person to which the transferable record was issued or, if it has been transferred, the person to which the transferable record has most recently been transferred.83 Finally, the authoritative copy must be communicated

As to the concept of "electronic promissory notes", and a discussion of the need for UCC "neutrality", see Newell & Gordon, Electronic Commerce and Negotiable Instruments (Electronic Promissory Notes), 31 IDAHO L. REV. 819 (1995).

As noted previously in the text, UCITA excepts or exempts from its scope transactions under Article 9 of the UCC. The fact that UCITA permits and recognizes the validity of electronic promissory notes does not conflict with this exception or exemption. Rather, the legal recognition of electronic transferable records/promissory notes says nothing about how such property might be used as collateral security, and therefore does not implicate Article 9. Nevertheless, without E-SIGN (and UETA) questions might arise relating to the validity or legitimacy of these species of property, whether under Article 9 or otherwise. Thus, although E-SIGN does not govern Article 9 formations, Congress understood that it would be necessary to mesh the rules relating to transferable records/electronic notes to ensure that there would be no conflict between them.

^{77.} It bears reiteration that E-SIGN does not apply to Articles 3 or 9 of the UCC, and therefore, when this article refers to those sections, it is doing so solely by way of example.

^{78. 15} U.S.C.A. § 7021(b) (West 2007).

^{79. § 7021(}c)(1).

^{80. § 7021(}c)(4).

^{81. § 7021(}c)(5).

^{82. § 7021(}c)(6).

^{83. § 7021(}c)(2).

to and maintained by the person asserting control or its designated custodian.84 The idea is that if, for example, a bank is the payee of an "electronic note", which has been electronically signed by the debtor/ maker, and the note is created and/or thereafter stored in the bank's secure computer system in electronic form so that it can only be accessed by authorized officials of the bank, and so that it cannot be altered except by an authorized official of the bank. The bank should be able to use that "electronic instrument" in lieu of traditional paper instruments and to transfer or otherwise deal with them in the same way banks have utilized paper instruments for centuries. Whether and the extent to which North Carolina banks will develop and use this technology, and whether and the extent to which these instruments will gain acceptance in the broader community are questions that will have to be determined over time; but E-SIGN and UETA demonstrate a legislative intent not to hinder-and indeed, to foster-that development.

These provisions mesh generally with provisions found in Articles 3 and 9 of the UCC, as does the next provision, specifying that unless otherwise agreed, the person with control of a transferable record is considered the holder of the record as that term is defined by Article 1 of the UCC.85 That person has the same rights as an equivalent holder of a record or writing under the Code, including, if the person in control meets the requirements established by the Code, 86 rights as a holder in due course or purchaser for value of an instrument, except that there is no requirement of delivery, possession or indorsement to obtain or effectuate those rights.⁸⁷ Essentially, this means that if a transferable record is established under E-SIGN, assignees or transferees of that record, by obtaining the requisite transfer by the person with control in good faith, for value, and without notice of claims or defenses, will generally take free of those claims and defenses to the same extent as would a holder in due course or other bona fide purchaser of a more traditional paper instrument. Thus, in general, such a transferee would take free of claims, personal defenses and claims in recoupment.

By the same token, E-SIGN provides the obligor of a transferable record with the same rights and duties as an obligor under the UCC.⁸⁸ If the obligor on the transferable record requests, the person asserting

^{84. 15} U.S.C.A. § 7021(c)(3) (West 2007).

^{85.} N.C. GEN. STAT. § 25-1-201(21) (2005).

^{86.} N.C. Gen. Stat. § 3-302(a); cf. N.C. Gen. Stat. §§ 9-312, 9-314, 9-330 (2005).

^{87. 15} U.S.C.A. § 7021(d) (West 2007).

^{88. § 7021(}e).

the right to enforce the transferable record must provide reasonable proof that it is the person in control of the record, which may include access to the authoritative copy of the record and any related business records sufficient to review the terms of the record and establish the identity of the person asserting control.⁸⁹

The final Subchapter of E-SIGN is designed to require the promotion by the Secretary of Commerce of the acceptance and use of electronic signatures in interstate and foreign commerce in accordance with the following principles: the removal of "paper-based obstacles" to electronic transactions by adopting the United Nations Commission on International Trade Law's Model Law on Electronic Commerce; permitting parties to transactions to determine for themselves the appropriate authentication technologies and implementation models for their transactions, with the assurance that those technologies and models will be recognized and enforced; permitting those parties the opportunity to prove in court or other proceedings the validity of their authentication procedures and transactions; and adopting a nondiscriminatory approach to electronic signatures and authentication methods from other jurisdictions. 91

II. AN OVERVIEW OF UETA

As indicated above, most jurisdictions, including North Carolina, 92 have adopted UETA, as strongly encouraged by E-SIGN, 93 and UETA essentially duplicates and expands somewhat on E-SIGN's provisions. North Carolina, like most other states, has made non-uniform amendments to UETA, both broadening and restricting the scope of E-SIGN, as permitted by the federal Act. 94 The discussion that follows considers both the Uniform Act and North Carolina's amendments to it.

^{89. § 7021(}f); cf. N.C. GEN. STAT. § 9-406.

^{90. § 7031(}a)(1).

^{91. § 7031(}a)(2).

^{92.} N.C. GEN. STAT. §§ 66-311 to 330 (2005 & Supp. 2006).

^{93.} Unif. Elec. Transactions Act, 7A U.L.A. 88 (Supp. 2006) (displaying table of enacting jurisdictions.). Georgia, Illinois, New York and Washington have not adopted UETA; however, these jurisdictions have otherwise complied with E-SIGN: Ga. Code Ann. §§ 10-12-1 to 10-12-5 (2000 & Supp. 2007); 5 Ill. Comp. Stat. 175/1-101 to -175/99-1 (2005 & Supp. 2007); N.Y. State Tech. Law §§ 303 to 309, 401to 402; Wash. Rev. Code §§ 19.34.010 to 19.34.903 (1999 & Supp. 2007).

^{94. 15} U.S.C.A. § 7002(a)(2)(b) & (a)(1) (West 2007); U.E.T.A. § (3)(b)(4) (1999).

After setting forth its short title, 95 North Carolina's version of the Act contains seventeen definitions⁹⁶ (as opposed to sixteen in the uniform Act), most of which either duplicate comparable definitions in the federal E-SIGN statute or in other uniform acts, such as the Uniform Commercial Code. The North Carolina version adds a definition of "consumer transaction", defining it to be "a transaction involving a natural person with respect to or affecting primarily personal, household, or family purposes,"97 a definition similar to that found in the UCC. 98 Likewise, both the uniform and North Carolina versions define the term "agreement" in a manner essentially comparable to that contained in the familiar UCC. They define that term as: "The bargain of the parties in fact, as found in their language or inferred from other circumstances and from rules, regulations, and procedures given the effect of agreements under laws otherwise applicable to a particular transaction."99 Next, both versions of the Act define an "automated transaction" in a manner similar to that in which the federal statute deals with electronic agents. 100 Such a transaction is one that is:

[C]onducted or performed, in whole or in part, by electronic means or electronic records, in which the acts or records of one or both parties are not reviewed by an individual in the ordinary course in forming a contract, performing under an existing contract, or fulfilling an obligation required by the transaction. ¹⁰¹

In other words, an "automated transaction" is one conducted at least in part by machine, without human intervention.

After defining "computer program," 102 both versions of the statute define "contract" in much the same way as the UCC, that is, as "the total legal obligation resulting from the parties' agreement as affected by [UETA] and other applicable law." 103 Both versions then define "electronic," 104 "electronic agent," electronic record" 106 and "electronic" 105 "electronic record" 106 and "electronic" 107 and "electronic" 108 are the statute define "electronic," 108 are the statute define electronic, 108 are the statute define electronic electron

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95. N.C. Gen. Stat. § 66-311 (2005).
96. Id. § 66-312.
97. Id. § 66-312(4).
98. See id. § 25-9-102(a)(26) (2005 & Supp. 2006).
99. U.E.T.A. § 2(1) (1999); N.C. Gen. Stat. § 66-312(1) (2005).
100. U.E.T.A. § 2(2); N.C. Gen. Stat. § 66-312(2).
101. Id.
102. U.E.T.A. § 2(3); N.C. Gen. Stat. § 66-312(3).
103. U.E.T.A. § 2(4); N.C. Gen. Stat. § 66-312(5).
104. U.E.T.A. § 2(5); N.C. Gen. Stat. § 66-312(6).
105. U.E.T.A. § 2(6) (1999); N.C. Gen. Stat. § 66-312(7) (2005).
106. U.E.T.A. § 2(7); N.C. Gen. Stat. § 66-312(8).
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tronic signature" in a manner essentially identical to the way those terms are defined under the federal Act. 108

Next, both the uniform version of UETA and the North Carolina version define "governmental agency" broadly to mean "an executive, legislative, or judicial agency, department, board, commission, authority, institution, or instrumentality of the federal government or of a State or of a county, municipality, or other political subdivision of a State." Both then define "information" in essentially an identical manner to the federal E-SIGN statute, 111 and then add the definition of an "information processing system" as "an electronic system for creating, generating, sending, receiving, storing, displaying, or processing information." The Acts then define "person" essentially identically to the federal Act, 113 ensuring that the term will be given the broadest meaning, encompassing any legal or commercial entity, as well as individuals. 114

The term "record" is defined essentially identically in both the federal and state statutes to mean "information that is inscribed on a tangible medium or stored in an electronic or other medium and is retrievable in perceivable form." UETA and its North Carolina counterpart, unlike E-SIGN, also have a definition of "security procedure", defined to mean a "procedure employed for the purpose of verifying that an electronic signature, record, or performance is that of a specific person or for detecting changes or errors in the information in an electronic record." This definition becomes critically important in allocating responsibility for electronic contracts or performances in subsequent sections of the statute. The term also "includes any procedure that requires the use of algorithms or other codes, identifying words or numbers, encryption, or callback or other acknowledgement procedures." 118

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107. U.E.T.A. § 2(8); N.C. Gen. Stat. § 66-312(9).
108. 15 U.S.C.A. § 7006(2)- (5) (West 2007).
109. U.E.T.A. § 2(9) (1999); N.C. Gen. Stat. § 66-312(10) (2005).
110. U.E.T.A. § 2(10); N.C. Gen. Stat. § 66-312(11).
111. 15 U.S.C.A. § 7006(7) (West 2007).
112. U.E.T.A. § 2(11); N.C. Gen. Stat. § 66-312(12).
113. 15 U.S.C.A. § 7006(8) (West 2007).
114. U.E.T.A. § 2(12) (1999); N.C. Gen. Stat. § 66-312(13) (2005).
115. 15 U.S.C.A. § 7006(9) (West 2007); U.E.T.A. § 2(13); N.C. Gen. Stat. § 66-312(14).
116. U.E.T.A. § 2(14); N.C. Gen. Stat. § 66-312(15).
117. See, e.g., U.E.T.A. § 10; N.C. Gen. Stat. § 66-320.
118. U.E.T.A. § 2(14) (1999); N.C. Gen. Stat. § 66-312(15) (2005).
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After defining the term "State" somewhat more broadly than the federal Act, 119 to include not only states and territories, but also possessions, recognized or acknowledged Indian tribes or bands and Alaskan native villages, 120 the definitions conclude by defining "transaction."121 This last definition is somewhat less specific than its federal counterpart, which includes any actions that relate to conducting business, consumer or commercial affairs between two or more persons, including sales, leases, exchanges, licensing or other dispositions of personal property, whether goods, intangibles or services, or a combination of goods, intangibles and services; and the sale, lease, exchange or other disposition of real estate, or any combination of those actions. 122 By contrast, both the uniform and North Carolina versions of UETA simply define the term to mean an action or set of actions occurring between two or more persons relating to the conduct of consumer, business, commercial or governmental affairs. 123 It is unclear whether this distinction between the broad definition in the state statute and the somewhat more specific federal definition is of any significance. The comment to UETA, though, indicates that "unilateral or non-transactional actions" are not within the scope of the definition, which suggests, for example, that the execution of a will, trust, or a health care power of attorney or similar health care designation is not a "transaction" because it does not involve two or more persons; but rather represents the unilateral act of the party executing the record. 124 That same comment notes, however, that the Act nevertheless applies to the electronic record and signature themselves, despite the fact that no "transaction" may be involved. 125

The first substantive provision of UETA, which declares its scope, meshes with E-SIGN. It will be recalled that states may comply with E-SIGN by adopting UETA, but the federal statute also mandates that the states may not except from the scope of their UETA enactment state laws that would frustrate the intent of Congress in enacting E-SIGN. 126 Were it not for this provision, North Carolina and its sister states could exempt from their enactments of UETA other state statutes in a manner inconsistent with the goals and purposes of the federal statute.

^{119. 15} U.S.C.A. § 7006(12) (West 2007).

^{120.} U.E.T.A. § 2(15) (1999); N.C. GEN. STAT. § 66-312(16) (2005).

^{121.} U.E.T.A. § 2(16); N.C. GEN. STAT. § 66-312(17).

^{122. 15} U.S.C.A. § 7006(13) (West 2007).

^{123.} U.E.T.A. § 2(16); N.C. GEN. STAT. § 66-312(17).

^{124.} U.E.T.A. § 2(16) cmt. 12 (1999); N.C. GEN. STAT. § 66-312(17) cmt. 12 (2005).

^{126. 15} U.S.C.A. § 7002(a)(1) (West 2007); U.E.T.A. § 3(b)(4) (1999); N.C. GEN. STAT. § 66-313(b) (2005 & Supp. 2006).

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The Uniform and North Carolina Acts make clear that, in general and subject to very limited exceptions, UETA applies to all electronic records and electronic signatures that relate to a transaction. 127 The next subsection of the North Carolina version then sets forth the limited exceptions, specifying that, consistent with E-SIGN, the North Carolina statute does not apply to: (1) transactions that are covered by laws governing the creation and execution of wills, codicils, or testamentary trusts; (2) provisions of the UCC (except the section governing waiver and renunciation¹²⁸ and Articles 2 and 2A); and (3) the North Carolina Electronic Commerce Act, set forth in Chapter 11A of the General Statutes, which governs electronic commerce between or among state agencies and between state agencies and others. 129 The effect of the first two of North Carolina's exceptions is to diminish the likelihood that the documents associated with decedents' estates will take on electronic form anytime soon, and to leave most transactions governed by the UCC-except sales of goods, leases of personalty and renunciations of rights or waivers governed by the Code-to coverage by the Code Articles that would otherwise govern. Thus, for example, Articles 3, 4 and 9 of the UCC, which govern commercial paper, banks and the check collection process and secured transactions respectively. are exempt from the North Carolina and uniform versions of UETA; thus, checks, drafts, notes and security agreements are not governed by UETA its North Carolina counterpart. The effect of this is diminished both by the fact that Article 9 was recently amended to take electronic transactions into account and by the fact that both E-SIGN and UETA provide for transferable records, which would include the possibility of "e-notes," discussed briefly above in connection with E-SIGN and to be discussed further below; and as well by new federal legisla-

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^{127.} U.E.T.A. § 3(a); N.C. GEN. STAT. § 66-313(a) (2005 & Supp. 2006). The uniform version of UETA, like the current version of E-SIGN, still refers to the unamended version of the U.C.C. § 1-207, which is now § 1-306. However, there is no reason to think that North Carolina's reference to its amended version of UCC Article 1 would be deemed to violate E-SIGN. Both Congress and NCCUSL would be well advised to amend the respective statutes to incorporate the amended Uniform Commercial Code.

^{128.} N.C. Gen. Stat. \$ 66-313(b)(2) (2005 & Supp. 2006), referring to N.C. Gen. Stat. \$ 25-1-306 (2005).

^{129.} Id. § 66-313(b)(3), referring to N.C. GEN. STAT. §§ 66-58.1 to 58.12. The Act, passed in 1998 and amended subsequently to take cognizance of and refer to E-SIGN as required by that statute, is, as explained briefly in the text, North Carolina's substitute for the Uniform version's §§ 17-21.

tion, "Check 21," 130 which permits check truncation and the digitization and electronic presentment of checks. 131

III. A Brief Digression to Consider the North Carolina Electronic Commerce Act

The effect of the third exception-the exception for North Carolina's Electronic Commerce Act-is to except from this state's version of UETA most electronic transactions between the state or its agencies and other agencies or individuals. The Electronic Commerce Act (ECA) supplants the uniform version of UETA'S sections 17-19, which North Carolina did not adopt. Because the ECA apparently replaces the unenacted uniform version of UETA, some discussion of it is necessary and appropriate. Passed in 1998 and amended to conform to the laterpassed E-SIGN, the ECA specifies its limited purpose: "to facilitate electronic commerce with public agencies and regulate the application of electronic signatures when used in commerce with public agencies."132 It then sets forth definitions, consistent with those contained in both E-SIGN and UETA, of the terms "certification authority", "electronic signature", "person", "public agencies", "Secretary" and "transaction."133 Most of these terms are self explanatory, with "Secretary", for example, referring to the Secretary of State. 134 Only two of the terms are worthy of some note: (1) the "certification authority" is the person (as broadly defined by the Act) charged by the Secretary with "vouching for the relationship between a person or public agency and that person's or public agency's electronic signature"; 135 and (2) the term "transaction" is broadly defined to mean any "electronic transmission of data between a person and a public agency, or between public agencies, including, but not limited to, contracts, filings, and legally operative documents." 136 Thus, virtually all electronic commu-

^{130. 12} U.S.C.A. §§ 5001-5018 (West 2007).

^{131.} See, e.g., Mark E. Budnitz, The Check 21 Challenge: Will Banks Take Advantage of Consumers?, 58 Consumer Fin. L.Q. Rep. 369 (2004); Carl Felsenfeld & Genci Bilali, The Check Clearing for the 21st Century Act—A Wrong Turn in the Road to Improvement of the U.S. Payments System, 85 Neb. L. Rev. 52 (2006); Stephanie Heller, An Endangered Species: The Increasing Irrelevance of Article 4 of the UCC in an Electronics-Based Payments System, 40 Loy. L.A. L. Rev. 513 (2006); Andrea McGlinn, Comment, Check Clearing for the 21st Century Act: The Impact on Consumers, 9 N.C. Banking Inst. 179 (2005).

^{132.} N.C. GEN. STAT. § 66-58.2 (2005).

^{133. § 66-58.2(1)-(7).}

^{134. § 66-58.(2).}

^{135. § 66-58.2(1).}

^{136. § 66-58.2(6).}

nications—since virtually all communications will transmit data, if only the words contained within an email—between citizens or other legally recognized entities (i.e., persons)¹³⁷ and the state or its public agencies (broadly defined to include state and local officials of virtually every character),¹³⁸ or between governmental entities, will be covered by the ECA.

The ECA's substantive provisions begin by vesting in the Secretary of State the power to license and generally regulate and supervise those who would act as certification authorities—i.e., those who verify or vouch for the legitimacy of electronic signatures in transactions with the state. According to the ECA, the Secretary may set licensing standards that regulate the technical and other requirements a certification authority must meet before being licensed, and establish the licensing fee for the one-year, renewable license. 139 Interestingly, the Secretary of State's website indicates that, although shortly after the Act was passed, there were three certification authorities, their licenses have expired, and no new licenses have been issued. 140 Apparently, the absence of certification authorities has not hampered the growth of ecommerce in the state, nor has it deterred the Legislature from passing new laws expanding the role of electronic transactions, though it is curious, and perhaps more than a bit lucky, that fraudulent signatures have not become a problem for state agencies.

The ECA specifically authorizes public agencies to accept (and presumably use) electronic signatures, ¹⁴¹ and provides electronic signatures with the same efficacy as manual signatures as long as the agency requests or requires their use, ¹⁴² and the signature meets the statutory requirements that it be unique to and under the sole control of the person using it, capable of certification, invalidated if the data accompanying it is modified, and otherwise conforms to rules promulgated by the Secretary of State. ¹⁴³ Moreover, a transaction is not to be deemed unenforceable or inadmissible on the sole ground that it is in electronic form, ¹⁴⁴ but the ECA does not affect any presumptions or burdens of proof set forth in UETA or elsewhere in the law. ¹⁴⁵ That is,

^{137.} N.C. GEN. STAT. § 66-58.2(3) (2005).

^{138. § 66-58.2(4).}

^{139. § 66-58.3.}

^{140.} North Carolina Secretary of State, http://www.secretary.state.nc.us/Ecomm/formerauthor.aspx, (last visited Dec. 5, 2007).

^{141.} N.C. GEN. STAT. § 66-58.4(a)(1) (2005).

^{142.} Id.

^{143. § 66-58.5(}a)(2).

^{144. § 66-58.5(}b).

^{145. § 66-58.5(}c).

the mere fact that an e-signature or e-transaction occurs under the ECA does not change the law with respect to who must bear the burden of pleading or proving a signature, or modify any presumptions set forth elsewhere in the law.¹⁴⁶

The ECA gives the Secretary of State the authority to police enforcement of the statute, through the attorney general, and specifies that the superior courts have jurisdiction to hear cases involving alleged improprieties under the Act, including fraud and other unlawful conduct.147 But the statute also makes clear that the ECA does not otherwise displace rights arising or acquired under any other law applicable to the parties. 148 Other provisions of the ECA specify both civil penalties recoverable against certification agencies that violate the ECA¹⁴⁹ and criminal penalties for all violators of the statute. ¹⁵⁰ Still other provisions of the ECA authorize the Secretary of State to promulgate rules governing the implementation of the statute and the fees associated with it, 151 and to enter into reciprocal agreements with other jurisdictions that have similar laws. 152 It also encourages agencies to allow the public access to agency services, giving broad authority to the agencies to determine to what information to allow access and to set fees (subject to certain oversight). These latter provisions are not applicable to the Judicial Department. 154 Additionally, the ECA specifically exempts from its scope "documents filed with, issued, or entered by a court,"155 making clear that if documents covered by the ECA are subsequently filed with a court, they are not rendered invalid on that account. 156 The ECA also exempts electronic and facsimile signatures otherwise permitted by law and transactions that do not involve a public agency. 157

IV. RETURNING TO UETA

The uniform version of UETA, drafted with the hope that states would enact UCITA, allows states to exempt from its operation both

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146. Id.
147. N.C. GEN. STAT. § 66-58.6 (2005).
148. Id.
149. § 66-58.7.
150. § 66-58.8.
151. § 66-58.10.
152. § 66-58.11.
153. N.C. GEN. STAT § 66-58.12 (2005).
154. § 66-58.12(d).
155. § 66-58.9(2).
156. Id.
157. §§ 66-58.9(1) & (3).
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UCITA and "other laws" consistent with E-SIGN. 158 Because North Carolina has not adopted UCITA-indeed, as mentioned previously. only two states have-there is no need for the inclusion of this third exception set forth in the uniform version of the Act. North Carolina does include a broad provision specifying that transactions subject to the North Carolina version of UETA are also subject to other applicable law. 159 But, while most states have used the "other laws" exception to adopt numerous exceptions which mirror or complement what E-SIGN permits the states to except, North Carolina has instead added a nonuniform subsection (e). That non-uniform subsection exempts most of the E-SIGN-authorized exemptions, such as: notices regarding the termination or cancellation of utility services; 160 notices regarding default, acceleration, repossession, foreclosure or eviction, or the right to cure, under a credit agreement secured by one's principal residence. or a lease of that residence;161 notices regarding the cancellation or termination of health insurance or benefits or life insurance benefits other than annuities;162 notices of product recalls or material failures of products that risk endangering health or safety; 163 documents required to accompany the transportation or handling of hazardous or toxic materials or pesticides, or other dangerous material. 164 North Carolina, however, does not exempt court orders, notices or official court documents, including briefs, pleadings and other writings that are required to be executed in connection with judicial proceedings, as permitted by E-SIGN, 165 and as exempted by perhaps most other states. The North Carolina statute also does not exempt state statutes or other rules or regulations governing adoption or divorce or other matters of family law. 166 As discussed above, North Carolina's rules of appellate practice, and those governing the Business Court, separately permit electronic filings, and this may be why judicial matters are not exempted from the state's UETA. It cannot, however, explain the failure to exempt domestic relations matters from the statute.

Section 4 of both versions of UETA makes clear that the statute is to have only prospective application, leaving to other law transactions

^{158.} U.E.T.A. §§ 3(b)(3) & (4).

^{159.} N.C. GEN. STAT. § 66-313(d) (2005).

^{160. 15} U.S.C.A. § 7003(b)(2)(A) (West 2007); N.C. GEN. STAT. § 66-313(e)(1) (2005).

^{161. 15} U.S.C.A. \S 7003(b)(2)(B); N.C. Gen. Stat. \S 66-313(e)(2).

^{162. 15} U.S.C.A. § 7003(b)(2)(C); N.C. GEN. STAT. § 66-313(e)(3).

^{163. 15} U.S.C.A. § 7003(b)(2)(D); N.C. GEN. STAT. § 66-313(e)(4).

^{164. 15} U.S.C.A. § 7003(b)(3); N.C. GEN. STAT. § 66-312(e)(5).

^{165. 15} U.S.C.A. § 7003(b)(1).

^{166. 15} U.S.C.A. § 7003(a)(2) (West 2007).

entered into before the effective date of the Act. Section 5 of both versions of the statute allows the parties generally to vary UETA by agreement, providing important rights to parties that choose not to contract electronically or to do so in only a limited fashion. Section 5(a) makes clear that the statutes do not require an electronic record or signature to be created, generated, sent, communicated, received or otherwise processed or used, 167 while Subsection (b) provides that the Acts only apply when each of the parties to the transaction has agreed to conduct transactions by electronic means. 168 North Carolina has adopted a non-uniform provision¹⁶⁹ that applies to consumer consents and that largely mirrors provisions in E-SIGN dealing with the need for the consumer to be able to access electronic information and the proving of consent. This provision will be discussed later in greater detail. Both versions of the statute also make clear that the determination of whether one has consented to conduct a transaction electronically is to be made by viewing all of the surrounding circumstances, including the context and conduct of the parties.¹⁷⁰ The next subsection provides explicitly that consent to conduct one transaction electronically does not necessarily carry over to other transactions; a party may indeed refuse to conduct other transactions electronically, and this power to refuse may not be waived or varied by agreement. 171 In general, however, except as otherwise provided within the Acts, the parties are free to vary both versions of UETA's provisions by agreement, whether or not a particular section or subsection begins with words such as "unless otherwise agreed." Finally, this section of both versions provides that whether an electronic record or signature has legal effect depends on UETA and other applicable law. 173

The Acts both specify how the courts are to construe and apply UETA's respective provisions, expressing a legislative intent to facilitate and expand electronic transactions.¹⁷⁴ Facilitation and expansion must remain consistent, however, with reasonable practices and other applicable law.¹⁷⁵

Section 7 of both the uniform and North Carolina versions of UETA expresses that the underlying theme of UETA is to validate elec-

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167. U.E.T.A. § 5(a) (1999); N.C. GEN. STAT. § 66-315(a) (2005).
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^{168.} U.E.T.A. § 5(b); N.C. GEN. STAT. § 66-315(b).

^{169.} N.C. GEN. STAT. § 66-327 (2005).

^{170.} N.C. GEN. STAT. § 66-315(b) (2005).

^{171.} U.E.T.A. § 5(c) (1999); N.C. GEN. STAT. § 66-315(c) (2005).

^{172.} U.E.T.A. § 5(d); N.C. GEN. STAT. § 66-315(d).

^{173.} U.E.T.A. § 5(e); N.C. GEN. STAT. § 66-315(e).

^{174.} U.E.T.A. § 6; N.C. GEN. STAT. § 66-316.

^{175.} Id.

tronic transactions and electronic signatures, providing that a record or signature is not to be denied legal effect or enforceability because of its electronic form, and that a contract is not to be denied effect or enforcement solely because it was formed electronically. Moreover, when a law requires a writing or signature, an electronic record or electronic signature is deemed to suffice, though North Carolina adds the proviso that the record or signature otherwise comply with the provisions of the statute—a proviso the drafters apparently thought implicit in the uniform version. 177

Section 8 of both statutes is a savings provision, designed to ensure that other laws affecting the nature of writings, their format or the manner in which they are to be sent or received are not overridden except to the extent that those other laws permit, 178 although North Carolina modifies the uniform version slightly. Thus, both versions provide initially that as long as the parties have agreed to the electronic transaction, if another law requires one of them to provide, send or deliver information to another, that information can be provided, sent or delivered electronically, as long as this is accomplished in a manner that allows the recipient to retain the electronic information upon its receipt.¹⁷⁹ However, the statutes make clear that this provision is not satisfied if the sender or its system inhibits the printing or storing of the information, 180 and the North Carolina version adds that an electronic record is not capable of retention if it "is not capable of being accurately reproduced for later reference by all parties or persons who are entitled to retain the contract or other record."181

Where an applicable law requires a record to be posted or displayed in a particular manner, or to be sent, communicated or transmitted by a specific method, or to contain information that is formatted in a specified way, both versions of UETA permit the other applicable law to be satisfied electronically, except to the extent that the other law would prohibit or prevent such application. Thus, the Acts specify that the record must be posted or displayed in accordance with the other substantive law, sent, communicated or transmitted in accordance therewith, and formatted as that law may require; but, if the other law may be satisfied by electronic means, both the Uniform

^{176.} U.E.T.A. §§ 7(a) & (b); N.C. GEN. STAT. §§ 66-317(a) & (b).

^{177.} U.E.T.A. §§ 7(c) & (d) (1999); N.C. GEN. STAT. §§ 66-317(c) & (d) (2005).

^{178.} U.E.T.A. § 8 cmt. 1; N.C. GEN. STAT. § 66-318 cmt. 1.

^{179.} U.E.T.A. § 8(a); N.C. GEN. STAT. § 66-312.

^{180.} Id.

^{181.} N.C. GEN. STAT. § 66-318(a)(2).

^{182.} U.E.T.A. § 8(b); N.C. GEN. STAT. § 66-318(b).

and North Carolina versions of UETA validate the use of an electronic transaction that meets the other law's requirements. For example, if another North Carolina law requires certain notices to be sent or given in a specified size type, and does not prohibit the use of electronic means to send the notice, as long as the electronic communication conformed to the size type required by the other law, UETA would validate the transaction. Likewise, if the other law requires a particular format in which information must be sent to a consumer, so long as the consumer has agreed, and the other law does not prohibit

^{183.} U.E.T.A. § 8 cmt. 4 (1999); N.C. GEN. STAT. § 66-318 cmt. 4 (2005).

^{184.} See, e.g., N.C. GEN. STAT. § 25A-25 (2005) (requiring every consumer credit sale contract to contain a specified notice in at least ten-point boldface type); N.C. GEN. STAT. § 58-3-178 (2005) (requiring that insurers who provide health care benefit plans to religious employers give notice to each insured, in at least 10-point type, that contraceptives are not covered); N.C. GEN. STAT. § 58-22-20 (2005) (requiring out-ofstate risk retention groups conducting business in this State to provide a specific notice in ten-point type and in a "contrasting color on the front page and the declaration page."); N.C. GEN. STAT. § 58-50-45 (2005) (requiring an insurer, upon issuing a renewal of a group life or health insurance policy, to provide a specified notice in printed ten-point type); N.C. GEN. STAT. § 66-224 (2005) (requiring that all contracts "between a consumer and a credit repair business for the purchase of the services of the credit repair business" contain certain information and forms printed in no less than ten-point boldface type); N.C. GEN. STAT. § 66-119 (2005) (requiring prepaid entertainment contracts to have boldfaced minimum ten point font notice of buyer's right to cancel); N.C. GEN. STAT. § 66-240 (2005) (requiring a membership camping operator to furnish a purchaser with a form, entitled "NOTICE OF CANCELLATION," in ten-point boldface type).

^{185.} Cf. N.C. GEN. STAT. § 66-327(d) (2005) (requiring written notices or disclosures in certain transactions, discussed subsequently.).

^{186.} U.E.T.A. § 8 cmt. 4 (1999); N.C. GEN. STAT. § 66-318 cmt. 4 (2005).

^{187.} See, e.g., N.C. GEN. STAT. § 25A-40 (2005) (requiring the seller in a homesolicitation sale to provide the buyer with a notice that is in "immediate proximity to the space reserved for the signature of the buyer in bold face type of a minimum size of ten points."); N.C. GEN. STAT. § 58-22-20 (2005) (requiring out-of-state risk retention groups conducting business in this State to provide a specific notice in ten-point type and in a "contrasting color on the front page and the declaration page."); N.C. GEN. STAT. § 24-11(e) (2005) (requiring that a lender provide a cardholder with notice of new charges and that the notice be in "bold and conspicuous [type appearing] on the face of the periodic billing statement or on a separate statement which is clearly noted on the face of the periodic billing statement provided to the cardholder."); N.C. GEN. STAT. § 75-65 (2005) ("Any business that owns or licenses personal information of [North Carolinians] or any business that conducts business in North Carolina that owns or licenses personal information in any form . . . shall provide [a clear, conspicuous] notice [in an authorized enumerated format] to the affected person that there has been a security breach"); N.C. GEN. STAT. § 75-116 (Supp. 2006) (requiring those allowed to send unsolicited facsimile advertisements to include a "clear and conspicuous [notice] on the first page" that includes certain specified information).

the information from being sent—in the correct format—electronically, UETA would again validate the transaction. ¹⁸⁸ The point of this section is simply that other laws ought not to be overridden and if they can be satisfied by means of electronic communication, this should be permitted. It should be noted, once again, that North Carolina has enacted a non-uniform provision ¹⁸⁹ which impacts notices sent to consumers. This provision will be discussed at some length subsequently.

This point is made all the more clear by a provision of both the Uniform and North Carolina versions of UETA that specifies that, while generally, other law requiring that information be sent, communicated or transmitted in a specified manner must be followed, ¹⁹⁰ if that other law allows the parties to vary the means by which the information is to be sent, communicated or transmitted, then they may vary it to the same extent as the other law permits. ¹⁹¹ Thus, for example, if a state law required written notice to be sent by first class mail, ¹⁹² the notice would have to be sent in that manner; but if the statute permit-

North Carolina's enactment of U.C.C. Article 4A specifically permits the parties to alter their agreement, see, e.g., N.C. Gen. Stat. § 25-4A-404 (2005) (providing that a bank that receives a payment order that does not instruct that the payment go to the beneficiary's account but that requires notice be provided to the beneficiary "may [provide the notice] by first-class mail or any other means reasonable in the circumstances.").

See also N.C. Gen. Stat. § 66-121 (2005), dealing with "prepaid entertainment contracts", defined as a contract where the buyer pays or is obligated to pay for certain services—such as dance lessons, dating services, martial arts or health club memberships—in advance of receiving the service. The statute allows a buyer to cancel within 3 days of the transaction by giving written notice and provides in part that "Notice of cancellation, if given by mail, is given when it is deposited in the United States mail properly addressed and postage prepaid. . . . Notice of cancellation need not take a particular form and is sufficient if it indicates by any form of written expression the intention of the buyer not to be bound by the contract." *Id.*

^{188.} U.E.T.A. § 8 cmt. 4 (1999); N.C. GEN. STAT. § 66-318 cmt. 4 (2005).

^{189.} N.C. GEN. STAT. § 66-327 (2005).

^{190.} U.E.T.A. § 8(b)(2); N.C. GEN. STAT. § 66-318(b)(2).

^{191.} U.E.T.A. § 8(d)(2); N.C. GEN. STAT. § 66-318(d)(2).

^{192.} For examples of statutes that permit mailing or "other delivery", see N.C. Gen. Stat. § 58-35-65 (2005) ("Before the due date of the first installment payable under an insurance premium finance agreement, the insurance premium finance company holding the agreement or the insurance agent shall cause to be delivered to the insured, or mail to the insured at the insured's address as shown in the agreement, a copy of the agreement."); N.C. Gen. Stat. § 58-40-140 (2005) ("Any policy for commercial general liability coverage or professional liability insurance wherein the insurer offers, and the insured elects to purchase, an extended reporting period for claims arising during the expiring policy period must [w]ithin 45 days after the mailing or delivery of the written request of the insured, the insurer shall mail or deliver [certain] loss information covering a three-year period")

ted the parties to vary that requirement by agreement, then the parties could do so to the same extent under UETA or its North Carolina's version, and, presumably, if they varied that requirement by agreeing to electronic communication, that agreement would be valid under both versions of UETA.¹⁹³

Section 8 of both Acts next specifies that if a sender of electronic information inhibits the recipient's ability to store or print an electronic record, that record is not enforceable against the recipient. Horeover, all of the requirements of section 8 are generally mandatory and may not be varied by agreement except as already discussed. However, to the extent that another law, which requires information to be sent, provided or delivered in writing, permits variation by agreement, the requirement that information, under UETA, be in the form of an electronic record capable of retention may also be varied by agreement. In other words, once again, the goal of UETA is to complement and not displace these other enactments; thus, if the other enactments allow the parties the ability to vary their provisions, so too may the parties vary an agreed to electronic transaction.

Section 9 of both versions of UETA provides an especially important set of rules for the law of electronic contracting, for it deals with whether and when an electronic record or signature is attributable to a person. The first truism, according to the section, is that an electronic record or signature is attributable to a person if it was that person's act.¹⁹⁷ The section further provides that whether an act was that of a particular person may be shown in any manner, including any showing of the efficacy of any security procedure that was applied to determine the person to which the record or signature was attributable.¹⁹⁸

But compare the following statutes which permit a party to mail a notice, but say nothing about variation by agreement: N.C. Gen. Stat. § 53-43.7 (2005) ("If the rental due on a safe-deposit box has not been paid for 90 days, the lessor may send a notice by registered mail or certified mail . . . stating that the safe-deposit box will be opened and its contents stored at the expense of the lessee unless payment of the rental is made within 30 days."); N.C. Gen. Stat. § 58-3-33 (2005)(providing that one claming to have suffered personal injury or property damage where the "injury or damage is subject to a policy of nonfleet private passenger automobile insurance may request by certified mail . . . the policy's limits of coverage under the applicable policy."). Presumably, under these statutes, the parties would not be permitted to agree otherwise, and electronic communications would not be permitted.

^{193.} U.E.T.A. § 8 cmt. 4 (1999); N.C. GEN. STAT. § 66-318 cmt. 4 (2005).

^{194.} U.E.T.A. § 8(c); N.C. GEN. STAT. § 66-318(c).

^{195.} U.E.T.A. § 8(d)(1); N.C. GEN. STAT. § 66-318(d)(1).

^{196.} U.E.T.A. § 8 cmt. 6; N.C. GEN. STAT. § 66-318 cmt. 6.

^{197.} U.E.T.A. § 9(a); N.C. GEN. STAT. § 66-319(a).

^{198.} Id.

In short, this section of the Act continues in effect the existing law that would otherwise validate a contract, writing or signature, including the law of agency and principal, 199 but broadens it in favor of existing cases that would hold, for example, that a facsimile with appropriate information on it—a letterhead or name and address—could properly be attributed, by virtue of that information, to the sender, irrespective of whether the facsimile had other "signatory" indicia.²⁰⁰ Likewise, if the content of a contract or other record provides information from which attribution is possible, this should be sufficient, 201 as should other identifying matter, such as a password, personal identification number (PIN) or other key code or security measure adopted by an individual.²⁰² Additionally, so-called "click-through" transactions, conducted over the Internet, by which a patron agrees to a transaction without specifically signing its name, but merely by clicking "OK" or the like, will be attributable to the person that clicked, subject, of course, to proof that it was that person's authorized act, which may be shown by security procedures or measures that enable identification of the machine used to conduct the transaction.²⁰³ While the fact that a particular person's computer sent the information or clicked the approval would not be conclusive in itself that the approval or assent was that person's, other facts, including, for example, whether the computer was private or public, generally used only by the person in question, or accessible to a small or limited group, should enable courts, juries and other fact-finders to reach an appropriate conclusion regarding whether a particular record or signature is attributable to a particular person.²⁰⁴ Moreover, any facts that would counter a determination that a record or signature is attributable to a particular person, such as evidence of fraud or forgery, would also be pertinent.²⁰⁵

^{199.} U.E.T.A. § 9(a) cmt. 1 (1999); N.C. GEN. STAT. § 66-319 cmt. 1 (2005).

^{200.} U.E.T.A. § 9(a) cmt. 3; N.C. GEN. STAT. § 66-319(a) cmt. 3; cf. Parma Tile Mosaic & Marble Co. v. Estate of Short, 663 N.E.2d 633 (N.Y. 1996) (holding that the guaranty clause of the Statute of Frauds was not satisfied by a fax when the sender had programmed the fax machine to automatically print on every faxed page a heading which indicated the name of the sender's company, a telephone number, the date, time, and a page number, since the sender had not thereby "authenticated" the writing, as mandated by the Statute of Fraud's requirement that the writing be "subscribed"; neither the act of identifying and sending the fax to a particular destination, nor the intentional act of programming the fax machine, was sufficient, in itself, to justify an inference that the sender intended to authenticate the information as its signature).

^{201.} U.E.T.A. § 9(a) cmt. 3; N.C. GEN. STAT. § 66-319(a) cmt. 3.

^{202.} Id.

^{203.} U.E.T.A. § 9(a) cmt. 5; N.C. GEN. STAT. § 66-319(a) cmt. 5.

^{204.} U.E.T.A. § 9 and cmts; N.C. GEN. STAT. § 66-319 and cmts. .

^{205.} U.E.T.A. § 9(a) cmt. 2 (1999); N.C. GEN. STAT. § 66-319(a) cmt. 2 (2005).

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In short, the subsection is concerned with authenticating whether the record or signature is attributable to a particular person, rather than to the machine from which it may have originated.²⁰⁶

Once it is determined that a record or signature is attributable to a particular person, the effect of that attribution is governed by subsection 9(b), which provides that the effect of attribution is to be determined from the context and circumstances that existed at the time the record or signature was created, executed or adopted.²⁰⁷ These surrounding circumstances include the parties' agreement, if any, as well as other law that might have an impact on the effect of attribution,²⁰⁸ including, for example, any course of dealing or course of performance between the parties, or any usage of trade to which both parties might otherwise be bound.

Basically, the effect of attributing a record or signature to a particular person is a matter largely dependent on other law. If, for example, a person is alleged to have entered into a contract over the Internet or via e-mail, all section 9 does is specify whether an authenticated signature or the contract itself may properly be attributed to that person. Once it is determined that indeed, the record or signature is that of the person alleged to have entered into the contract, the effect of that determination would be governed by the law that would control had the contract been formed in a more traditional manner. So, for example, if the contract were for the sale or lease of goods, Article 2 or 2A of the Uniform Commercial Code would govern its effect; if the contract were for the sale of land, the property law of North Carolina would govern. Beyond this, the circumstances surrounding the transaction at the time of contracting, including any agreement between the parties other than the electronic agreement at issue, would be relevant in determining the effect to be given to the contract following its attribution to the particular person.209

Section 10 of both versions of UETA is concerned with the effect of a change or error that occurs in the transmission of a record. It provides three substantive rules for dealing with errors or changes, and one procedural rule that prohibits variation of two of the substantive rules by party agreement. First, the Acts provide, in essence, that, if the parties have agreed to the use of a security procedure to detect changes or errors that occur, and one of the parties has abided by the agreed upon procedure while the other has not, the party who did not abide

^{206.} U.E.T.A. § 9(a) cmt 1; N.C. GEN. STAT. § 66-319(a) cmt. 1.

^{207.} U.E.T.A. § 9(b) (1999); N.C. GEN. STAT. § 66-319(b) (2005).

^{208.} U.E.T.A. § 9(a) cmt. 6; N.C. GEN. STAT. § 66-319(a) cmt. 6.

^{209.} Id.

by the procedure bears the risk of the error or change if it would have been detected by use of the agreed procedure. This is accomplished by allowing the party who did abide by the agreed upon procedure to avoid the effect of the changed or erroneous record. It

This provision would apply when two parties engaged in a person-to-person electronic transaction have agreed to utilize a security procedure designed to identify and prevent or alert the user to errors or changes caused either by human action or by machine. If one of the parties fails to use the agreed upon security system, and, as a result, an error or change escapes notice that would have been caught by the system, the party who used the security system is allowed to avoid the transaction as against the party who did not, on a theory analogous to that of mistake in the law of contracts generally. In effect, the error or change that occurs as a result of one party's failure to use the agreed upon security protocol results in a transaction as to which the other party—the one using the agreed upon protocol—mistakenly assented, and therefore, the latter party may avoid the transaction.

The section covers both errors and changes, and both human and machine generated problems, but it only applies when the parties have agreed to use a specified security procedure and one of them fails to do so. For example, suppose that Buyer and Seller have agreed that Seller will send an electronic confirmation when Buyer orders goods as a security procedure to detect errors or changes, and Buyer, intending to submit an order for 100 units of product, inadvertently submits an order for 1,000 units instead. If Seller fails to send the confirmation as agreed, Buyer can avoid the transaction.²¹⁵ The same result occurs if the reason for the problem is a change, rather than an error, as would be the case, for example, where Buyer orders meat with a fat content of no greater than 17%, but Buyer's computer automatically rounds this up to 20%. If Seller does not utilize the agreed upon protocol, which would have caught the change and alerted Buyer to it, Buyer can avoid the transaction. 216 In either case however, if proper utilization of the security procedure would not have detected the change or error, the transaction is simply not covered by this provision, but is, rather, rele-

^{210.} U.E.T.A. § 10(1); N.C. GEN. STAT. § 66-320(1).

^{211.} Id.

^{212.} U.E.T.A. § 10(1) cmts. 1 and 2; N.C. GEN. STAT. § 66-320(1) cmts. 1 and 2.

^{213.} U.E.T.A. § 10(1) cmt. 3 (1999); N.C. GEN. STAT. § 66-320(1) cmt. 3 (2005).

^{214.} Id.

^{215.} U.E.T.A. § 10(1) cmt. 1; N.C. GEN. STAT. § 66-320(1) cmt. 1.

^{216.} Id.

gated by another subsection of section 10 to the general law of contracts, including the law governing mistake.²¹⁷

Subsection 10(2) of both versions governs the case where there is an error or change and the transaction is not between two persons, but is between an individual and an automated system or machine, with the North Carolina version making a non-uniform deletion from the uniform version. According to the uniform version, the subsection only applies if the electronic agent did not provide an opportunity for the correction or prevention of the error. The North Carolina version leaves this out, suggesting that, in a case involving an individual, whether the electronic agent has a protocol for catching errors or changes is irrelevant, and the individual may avoid the transaction whether or not the automated party has such a protocol. In this case, if there is an error that occurs with respect to the transmission of a record, the individual may avoid the transaction, even if the error was his fault, as long as, when he learns of the error, he meets three requirements.²¹⁸ First, the individual must promptly notify the other party of the error and of the fact that the individual does not intend to be bound by the record the other party has received—in other words, he wants to rescind the transaction due to the mistake.²¹⁹ Second, the individual must take reasonable steps, including following any reasonable instructions from the other party, to return any consideration he has received as a result of the error or, if the other party so instructs, to destroy it, essentially codifying the requirement that restitution be made as a condition to the right of rescission.²²⁰ And third, the individual must not have used, or received any benefit or value from, the consideration, if any, that was received as a result of the error, since to allow rescission at that point would result in him being unjustly enriched at the expense of the other party.²²¹

This provision essentially codifies the right of a mistaken individual to obtain rescission of a transaction that occurs due to a mistake made by the individual, where doing so would not unjustly enrich the mistaken party, and where the other party can be returned to the *status quo ante*. It only applies when an individual is dealing with an automated system, and not another individual, and only when it is the

^{217.} U.E.T.A. § 10(1), (3) cmts. 1 and 7; N.C. GEN. STAT. § 66-320(1), (3) cmts. 1 and 7

^{218.} U.E.T.A. § 10(2); N.C. GEN. STAT. § 66-320(2).

^{219.} U.E.T.A. § 10(2)(A) and cmt. 6 (1999); N.C. GEN. STAT. § 66-320(2)a and cmt. 6 (2005).

^{220.} U.E.T.A. § 10(2)(B) and cmt. 6; N.C. GEN. STAT. § 66-320(2)b and cmt. 6.

^{221.} U.E.T.A. § 10(2)(C) and cmt. 6; N.C. GEN. STAT. § 66-320(2)c and cmt. 6.

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individual who has made the mistake; if another person is involved, the error is governed by the person-to-person rule discussed above, and if the automated system is at fault, the matter is resolved either by Subsection (1), discussed above, or by Subsection (3), a broad residual rule to be discussed below.²²²

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Although the rule set forth in the uniform version at first appears to give a mistaken individual a virtually unfettered right to rescission upon providing notice of an intent to rescind and making restitution, the rule in actuality is not nearly as broad as it seems, because it does not apply if the automated system provides "an opportunity for the prevention or correction" of errors. However, this language was omitted from the North Carolina adoption, thus largely permitting the mistaken party who makes a mistake while dealing with an automated system an almost unfettered right to rescind, without regard to safeguards provided by the electronic agent designed to prevent or correct the error. Thus, whereas, under the uniform version of UETA, if the party employing the electronic agent incorporates safeguards that are designed to prevent, or to allow the individual an opportunity to correct, errors, the subsection does not apply, and whether the individual is entitled to rescission is determined by other provisions of UETA and contract law generally. However, under the North Carolina version, the individual is allowed to make use of the section and rescind the transaction regardless of the automated system used by the other party.

A simple example will show the operation of the section under the Uniform Act as compared to its operation-without court intervention-in North Carolina. Suppose Buyer accesses an airline's automated website to purchase airline tickets for Paris, France, and inadvertently and mistakenly selects the Paris, Texas airport instead; the subsection would initially be applicable. If, before Buyer makes the final purchase, the website provides him with a "confirmation screen" which shows all of the information relating to the ticket purchase, or if the airline's automated system forwards a confirmation to Buyer that he must accept before the transaction is deemed completed, the uniform version of the subsection simply does not apply since the airline's automated system with which buyer was dealing provided "an opportunity for the prevention or correction" of errors.²²³ However, the North Carolina version of the Act does still apply, and if Buyer meets the three requirements set forth-prompt notice, destruction of the received consideration or the following of the airline's instruction, and

^{222.} U.E.T.A. § 10 cmt. 4; N.C. GEN. STAT. § 66-320, cmt. 4.

^{223.} U.E.T.A. § 10 cmt. 5; N.C. Gen. Stat. § 66-320 cmt. 5.

no benefit to Buyer-Buyer is allowed to rescind. Under the Uniform Act, if Buyer did not detect and correct the error despite the opportunity to do so, there is still a mistake, but the determination of Buyer's rights will be based on subsection (3), which essentially sends Buyer to residual contract law principles.²²⁴ Under the North Carolina version, Buyer is allowed to rescind if he meets the statutory requirements, giving even the negligent buyer rights under the statute. Whether a North Carolina court will react well to this provision is doubtful, for it lets the sloppy Buyer off the hook even though he had a chance to avoid the problem by reading the confirmation or checking his reservation (whichever protocol the airline uses) and failed to do so. Left to the more general law of mistake, many a buyer, at fault for the unilateral mistake caused by the failure to check his reservation, will find himself with a paid for ticket to Paris, Texas. It seems, however, that the buyer lucky enough to be in North Carolina may be able to avoid even the most negligent error when dealing with electronic agents!

Even if the party utilizing the automated system under the uniform version does not take advantage of UETA's invitation to develop and implement safeguards for the prevention or correction of mistakes. and in North Carolina, regardless of the safeguards adopted by that party, the individual must still meet the other three requirements of the subsection before its protection will be applicable. While these requirements are not especially onerous, and while they might appear to be obvious, they must be met before the mistaken individual may avoid the transaction. Because of their factual nature, whether they have occurred in any given situation will have to be determined on a case by case basis, probably precluding summary disposition if the parties end up in litigation. For example, whether the mistaken individual has "promptly" notified the other party will invariably be dependent on all of the surrounding circumstances, including the ease or difficulty the individual has in making contact with the other party. which, it must be remembered, used an automated system to conduct the transaction.²²⁵ Moreover, even a prompt notification of the fact that an error has been made is not in itself sufficient; the individual must also make clear to the other party that he does not intend to be bound by the electronic record that has been received, that is, that he is invoking the right of avoidance given by the Act. 226

In addition, the mistaken individual must generally take "reasonable steps" to make restitution of any consideration it has received as a

^{224.} Id.

^{225.} U.E.T.A. § 10(2)(A) cmt. 6 (1999); N.C. GEN. STAT. § 66-320(2)a cmt. 6 (2005).

^{226.} Id.

result of the voidable transaction, either following the other party's reasonable directions to return it or otherwise following the other party's reasonable instructions to destroy any consideration received by the individual.²²⁷ Presumably, both the reasonableness of the instructions and the reasonableness of the individual's actions in response to the instructions will present issues of fact, dependent again on all of the surrounding circumstances.

Finally, if the mistaken individual cannot make restitution, the section is inapplicable, whether under the uniform or the North Carolina version, and resort must be had to more general principles of contract law, including the law of mistake, to determine whether the individual will be allowed to avoid the transaction. Thus, if the individual has "used or received any benefit or value" as a result of the mistaken transaction, he may not avoid the transaction under this subsection:²²⁸ and whether that has occurred will undoubtedly be a factual question tied to the circumstances of the particular case. For example, if the mistaken individual, instead of receiving something tangible from the mistaken transaction like an airline ticket, which can be returned or destroyed at the other party's direction, receives an intangible such as proprietary information, or even a recording that has been listened to before realizing the mistake, it may be impossible to avoid the benefit conferred, and therefore inappropriate to allow the mistaken party to avoid the transaction.²²⁹ In such a case, although it would be possible for the individual to return the information, the mere fact that he has had access to the information might constitute a benefit, precluding avoidance by the individual under this section. This would be especially true in a situation where, for instance, the mistaken individual has redistributed the information to other parties.²³⁰ Suppose, for example, that the information is trade secrets or blueprints, and the mistaken individual is an intermediary—a broker or middleman-and, before the mistake is realized the individual forwards the information to its principal. In such a case, the information has clearly been "used" or the individual has clearly received a "benefit or value from the consideration", and the transaction may not be avoided. Similarly, if the consideration received has a fluctuating value, and the value diminishes between the time the mistaken individual receives it and the time the mistake is discovered or the consideration can be returned, restitution is inadequate to restore the status quo

^{227.} U.E.T.A. § 10(2)(B) cmt. 6; N.C. GEN. STAT. § 66-320(2)b cmt. 6.

^{228.} U.E.T.A. § 10(2)(C) cmt. 6; N.C. GEN. STAT. § 66-320(2)c cmt. 6.

^{229.} Id.

^{230.} Id.

ante, and the mistaken party cannot avoid the transaction under this section.²³¹

Subsection 10(3) of both versions specifies a residual rule for all cases not within subsections (1) or (2): if the transaction does not involve a change or error in an electronic record that occurs in its transmission, and is neither a person-to-person situation in which the parties have agreed to a particular set of security procedures that one then fails to use under subsection (1), nor a person-to-machine transaction meeting the requirements of subsection (2), just discussed, then the effect of any change or error that occurs will be resolved by the application of other rules of law, including the law of mistake, and, if the parties have a contract, by resort to the contract's terms.²³²

Once one realizes the relatively limited applicability of subsections (1) and (2) (under the Uniform Act, if less so under North Carolina's version), it becomes clear that this residual rule is in fact likely to govern most mistakes or errors involving electronic transactions. Thus, subsection (3), and hence, other law and the parties' contract, if any, will apply if the error or change does not occur in the transmission of an electronic record, but rather during some other stage of the transaction, such as, for example, in the context of retention of the record, 233 or before or after the record is sent or received; or if the transaction is person-to-person, but the parties have not agreed upon a security protocol, or have agreed upon a set of security procedures and both parties comply with them, but the error or change is nevertheless not detected;²³⁴ or if the error or change occurs in a transaction between two automated systems, and is therefore not within the scope of subsections (1) or (2);²³⁵ or if the error occurs in a person-to-machine setting during transmission, but is the result of machine rather than human error;236 or if the transaction is a person-to-machine transaction, and the individual makes the error in transmission, but the requirement of subsection (2), regarding the mistaken individual's obligations to notify the other party of the mistake, or of the intention to avoid the transaction, is not met;²³⁷ or if the requirement of subsection (2), regarding the mistaken individual's obligation to take reasonable steps to follow the other party's instructions concerning the

^{231.} U.E.T.A. § 10(2)(C) cmt. 6 (2005) N.C. GEN. STAT. § 66-320(2)c cmt. 6 (1999).

^{232.} U.E.T.A. § 10(3); N.C. GEN. STAT. § 66-320(3).

^{233.} U.E.T.A. § 10(3) cmt. 7; N.C. GEN. STAT. § 66-320(3) cmt. 7.

^{234.} U.E.T.A. § 10(3) cmt. 2; N.C. GEN. STAT. § 66-320(3) cmt. 2.

^{235.} U.E.T.A. § 10 cmts. 4 and 7; N.C. GEN. STAT. § 66-320 cmts. 4 and 7.

^{236.} Id

^{237.} U.E.T.A. § 10 cmt. 6 (1999), N.C. GEN. STAT. § 66-320 cmt. 6 (2005).

disposition of the consideration, is not met:²³⁸ or if it is impossible to place the parties into the status quo ante, either due to the mistaken individual's use or receipt of any value or benefit from the consideration received following a mistaken transmission in a person-tomachine setting, or due to other circumstances;²³⁹ or if, for any other reason, the error or change is outside the limited scope of subsections (1) and (2).²⁴⁰ In short, although it appears initially that the specific rules contained in subsections 10(1) and (2) will govern most mistaken transactions, a close reading of the Act makes clear that the residual rule, requiring resort to the parties' contract, if there is one. and to the general law of contracts, including the operative effect of mistakes, will likely govern most mistakes made in the context of electronic contracting. Moreover, if the parties do have a contract, and if the results of applying that contract's terms and applying other rules of contract law would result in different outcomes, the effectiveness of the contract's provisions would be governed by the construction of the contract according to the other rules of law.²⁴¹

The final subsection of section 10 provides that the parties may not, by their agreement, vary the provisions set forth in subsections (2) or (3).242 This important provision reflects a legislative policy that prohibits the parties from providing different rules to govern in the case of a person-to-machine transaction where the individual makes an error and seeks to avoid the transaction in accordance with subsection (2), or where the transaction falls outside the scope of subsections (1) and (2) altogether. To the extent that subsection (2) as enacted in North Carolina imposes stringent requirements on the mistaken individual, even if it does not encourage automated systems to adopt protocols for preventing or correcting errors, before allowing him to avoid an erroneous transaction and seeks to prevent unjust enrichment in favor of the mistaken individual, or unjust deprivation of the other party, there is no justification to allow the parties to alter the statutory regime, and both versions of UETA therefore prohibit agreements that have that effect.²⁴³ Likewise, to the extent that the residual rule set forth in subsection (3) brings into play other principles of law to govern the effect of a mistake or change not covered by the section 10,

^{238.} Id.

^{239 14}

^{240.} U.E.T.A. § 10 cmt. 7; N.C. GEN. STAT. § 66-320 cmt. 7.

^{241.} Id

^{242.} U.E.T.A. § 10(4) and cmt. 8 (1999); N.C. GEN. STAT. § 66-320(4) and cmt. 8 (2005).

^{243.} U.E.T.A. § 10 cmt. 8; N.C. GEN. STAT. § 66-320 cmt. 8.

allowing the parties to vary those principles by their agreement would be inconsistent with the notions of fairness and risk allocation inherent in those other principles. However, as explained above, this does not necessarily mean that the parties' contract, if any exists, will not be effective to allocate certain risks attendant to the making of errors or changes by the parties; it only prevents the parties from varying by their agreement the principles set forth in the Act.

Suppose, for example, that Buyer, intending to order 100 widgets in a transaction that is governed by subsection (2), makes an error in transmitting her order so that it reads 1.000 widgets instead. Suppose also that the automated system provides a "click through" agreement that buyers must execute to place their orders, one of the terms of which provides that all orders are final and that buyers may, under no circumstances, return goods purchased via electronic transactions, and that Buyer clicks "Okay." When the order arrives a week later, Buyer immediately discovers her error; but for the click through agreement's terms, Buyer would have the right, upon complying with the other provisions in subsection (2) regarding notice and the return or destruction of any consideration received, to avoid the transaction, assuming that Buyer has not used or otherwise benefited from the consideration she received. Under these circumstances, the attempt by the other party to alter the rule set forth in subsection (2) by its click through agreement would be impermissible, the clause in the agreement would be disregarded, and Buyer would be allowed the avoid the transaction.

If the hypothetical is changed slightly, however, a different outcome is warranted. Suppose the same facts as stated above, except that the click through agreement to which Buyer assents provides that if there is a problem with any goods ordered, buyers must notify the other party or return the goods within thirty days, or that any disputes will be resolved by arbitration, or that the choice of law for resolving any disputes will be that of the seller's state. In any of those three situations, whether the click through agreement's terms will be honored would depend upon the terms and the application of general principles of contract law; none of the three situations involves an attempt by the seller impermissibly to vary the provisions of section 10, and therefore, if the term would otherwise be enforceable under the law of contracts of North Carolina-and there's no reason to suppose that it would not be-Buyer would be bound by the term and it would determine the outcome. Although any of those terms might have a significant effect on Buyer's ability to avoid the transaction, it would not be as a result of an impermissible attempt to vary the Act; a court or arbi-

trator might uphold the thirty-day limitation as reasonable, or it might conclude that Buyer failed to comply with the terms of the Act, or that under the law of mistake in Seller's jurisdiction, restitution requires more than it would under the law of Buyer's state. However, in none of the three settings would the policy against variation by agreement be violated, despite the end result that Buyer might not be permitted to avoid the transaction as she perhaps would under different circumstances.

It is equally possible that a court would refuse to enforce any or all of the three provisions, not because they impermissibly attempted to vary section 10(2) or (3), but due to the application of other principles of contract law regarding assent, or adhesion contracts or unconscionability or the like. The point, however, is not whether the term or terms would ultimately be enforceable, but rather whether it would be unenforceable as a result of an attempt to vary section 10, or as a result of other, general principles of law or equity.

Section 11 of both versions of UETA mirrors E-SIGN insofar as notarizations and acknowledgements are concerned. Like E-SIGN, it provides that, if other law requires that a signature or record of a transaction be notarized or acknowledged, verified or made under oath. that requirement can be satisfied by an electronic signature of the notary or other signatory, if that signature, together with any other information required by the law to accompany that signature, is attached to or logically associated with the signature or record.²⁴⁴ As the comment to this section explains, the implicit effect of the section is to eliminate any requirement that a seal or stamp be impressed or otherwise set forth on an electronic record that is required to be notarized or acknowledged, since otherwise it would be impossible to conduct those types of transactions electronically. All other required formalities must still be met, however, and, as discussed previously, North Carolina has enacted a special, electronic notary act to deal with this problem.²⁴⁵ Some other states have also made this elimination explicit, though not with the adoption of electronic notary statutes.²⁴⁶

^{244.} U.E.T.A. § 11 (1999); cf. 15 U.S.C.A. § 7001(g) (West 2007) (E-SIGN). N.C. Gen. Stat. § 66-321 (2005) makes a minor, non-substantive change to the statute, adding "relating to a transaction" before the words "to be notarized". As to the applicability of the North Carolina Electronic Notary Act, see the text accompanying note 50, supra.

^{245.} U.E.T.A. § 11 cmt. (1999); N.C. GEN. STAT. § 66-321 cmt. (2005). See also the discussion accompanying note 50, supra.

^{246.} See, e.g., Fla. Stat. § 668.50 (11)(a) (2007) (adding a final sentence to the uniform version: "Neither a rubber stamp nor an impression type seal is required for an electronic notarization.").

Because section 11 eliminates the need for a seal or stamp on electronic contracts that are otherwise required to be notarized or acknowledged, transactions that require those formalities may nevertheless be conducted electronically. Thus, for example, North Carolina requires, by statute, that certain signatures be notarized,²⁴⁷ and this provision enables such transactions to be enforceable though in electronic form, such as a series of e-mails or some other electronic record. The relevant information required by state law must be attached to the record or logically associated with it (except, of course, the seal or stamp that would normally be required), so that, for example, the notary would state that the party personally appeared before the notary, that the party provided appropriate identification, and swore, under oath, that she was the party identified in the e-mail and so forth.²⁴⁸ Without the section or the electronic notary act, transactions requiring these formalities could not be conducted electronically, and the development of e-commerce would be substantially hindered.

The next section of both versions of UETA, section 12, also mirrors and expands upon the federal statute, providing for the retention of electronic records and the use of "original" records, as opposed to copies, although once again, North Carolina makes a minor non-uniform change, requiring, like E-SIGN, that if a law requires that a record be retained, that requirement may be met by electronic retention, so long as the electronic record accurately reflects the information set forth in the record when the record was first generated in its final form-the uniform version specifies after the record was first generated, rather than "at the time" as required for the North Carolina actwhether as an electronic record or otherwise, and so long as the electronic record remains accessible for later reference.²⁴⁹ The provision would apply to all records required by law to be retained, the comment explaining that as long as there is reliable assurance that the record accurately reproduces the information in accessible form, it should be treated as the functional equivalent of a traditional, paper record.²⁵⁰ Thus, where a law requires, for example, corporate records, or records regarding certain contracts entered into by companies or individuals,

^{247.} See, e.g., N.C. Gen. Stat. § 32A-25 (2005) (witnesses to health care powers of attorney); N.C. Gen. Stat. § 33B-18 (2005) (transfers under custodial trusts); N.C. Gen. Stat. § 44A-60 (2005) (lien on aircraft); N.C. Gen. Stat. § 52-10 (2005) (contracts between married persons); N.C. Gen. Stat. § 53-43.7 (2005) (procedure for opening safe deposit box).

^{248.} U.E.T.A. § 11 (1999) cmt.; N.C. GEN. STAT. § 66-321 cmt. (2005).

^{249.} U.E.T.A. § 12(a) (1999); N.C. GEN. STAT. § 66-322(a) (2005); cf. 15 U.S.C.A. § 7001(d)(1)(A) (West 2006) (E-SIGN).

^{250.} U.E.T.A. § 12(a) cmt. 1 (1999); N.C. GEN. STAT. § 66-322(a) cmt. 1 (2005).

to be maintained, the law is satisfied by the maintenance and retention of an electronic record.²⁵¹ As the comment also explains, however, because the key to the validity of electronic records is that they be accurate and accessible, continued monitoring of the systems in which electronic records are maintained will be necessary to ensure against inaccessibility due to changes in technology and obsolescence.²⁵² At the same time, however, if an electronic record has these attributes of accuracy and accessibility, it is unnecessary, absent specific statutory mandate, to retain the original paper record.²⁵³ Moreover, insofar as any statutory requirement of "original" records is mandated by a particular law, it is satisfied by an electronic record, the comment explaining that the concept of "originality" is "problematic" in the context of an electronic transaction, because of the fact that each revision made to a computer-generated document in effect replaces any earlier draft, so that each draft constitutes what might be considered either a new original or a document that is not original at all, at least as that term would be considered in a traditional transaction. UETA, both in its uniform version and as enacted in North Carolina, therefore takes the position that in the context of record retention, the concern should focus not on the "originality" of a record, but rather on its integrity with respect to the information contained in the record.²⁵⁴

The section continues, providing that a requirement that a record be retained does not apply to what might be called "ancillary" information, ²⁵⁵ that is, information whose purpose is to enable the record to be sent, communicated or received, much the same as E-SIGN. ²⁵⁶ Likewise, the retention of a record may be accomplished by using the services of a third party to retain the record, as long as the statutory requirements of accuracy and accessibility are satisfied. ²⁵⁷ The point of these provisions is that the focus of an electronic record retention requirement should properly be placed on the accuracy and accessibility of the record, and not on how the record got to the retention facility, or whether intermediaries are used to facilitate retention. ²⁵⁸ By the same token, however, unless a particular law specifies exactly what information contained in a record must be retained—as opposed to the

^{251.} U.E.T.A. § 12 cmts. 1-3; N.C. GEN. STAT. § 66-322 cmts. 1-3.

^{252.} U.E.T.A. § 12 cmt. 3; N.C. GEN. STAT. § 66-322 cmt. 3.

^{253 14}

^{254.} U.E.T.A. § 12 cmt. 2; N.C. Gen. Stat. § 66-322 cmt. 2.

^{255.} U.E.T.A. § 12 cmt. 4; N.C. Gen. Stat. § 66-322 cmt. 4.

^{256.} U.E.T.A. § 12(b) (1999); N.C. GEN. STAT. § 66-322(b) (2005); cf. 15 U.S.C.A. § 7001(d)(2) (West 2006) (E-SIGN).

^{257.} U.E.T.A. § 12(c); N.C. GEN. STAT. § 66-322(c).

^{258.} U.E.T.A. § 12 cmt. 4; N.C. GEN. STAT. § 66-322 cmt. 4.

record of the transaction itself-it may not be possible to determine in advance of a problem whether specific information is relevant or ancillary, necessary or not.²⁵⁹ Thus, for example, if a statute requires that certain corporate records be kept for a specified period of time, and the requirement would be satisfied by e-mailing all corporate records to a central server or depositary, it might ordinarily be supposed that retention of the e-mail address and pathway information regarding from where the record originated would be "ancillary", and not required to be kept as part of the record, since, presumably, the purpose of such a retention requirement would be the substance of the record, and not these peripheral matters. But if a dispute developed regarding when the record was first retained, or how long the record had been retained, that otherwise ancillary information might become highly relevant.260 And, since the importance or irrelevance of the particular information would not be known until after the dispute arose, caution dictates that "wise record retention would include all such information since what information will be relevant at a later time will not be known."261

Because of the problematic nature of originality, discussed above, both versions of the Act, like the federal statute, provide that, where a law requires a record to be presented or retained in its original form, or specifies consequences for a failure to present or retain the original record, electronic retention is nevertheless effective as long as the electronic record has the attributes of accuracy and accessibility mandated by section 12(a).²⁶² Thus, even though a particular statute or rule of law requires that an original of a contract or other transaction be presented or retained, it would be sufficient to retain an electronic version of the contract or transaction, as long as the information in the record is readily accessible by those entitled to view it and is an accurate reflection of the information contained within it at the time when the record was first generated in its final form.

Like E-SIGN, both versions of UETA also have specific provisions for checks, ²⁶³ providing that laws requiring the retention of checks are satisfied by electronic records containing the information on the front and back of the check that meet the foregoing specifications. As the

^{259.} U.E.T.A. § 12 cmts. 3 and 4; N.C. GEN. STAT. § 66-322 cmts. 3 and 4.

^{260.} Id.

^{261.} U.E.T.A. § 12 cmt. 3; N.C. GEN. STAT. § 66-322 cmt. 3.

^{262.} U.E.T.A. § 12(d) (1999); N.C. GEN. STAT. § 66-322(d) (2005); *cf.* 15 U.S.C.A. § 7001(d)(3) (West 2006) (E-SIGN);

^{263.} U.E.T.A. § 12(e) (1999); N.C. GEN. STAT. § 66-322(e) (2005); *cf.* 15 U.S.C.A. § 7001(d)(4) (West 2006) (E-SIGN);

comment notes, there are literally hundreds of state laws that require the retention or production of original canceled checks under various circumstances, and failure to allow for electronic retention and production of such instruments instead would inhibit the utility of electronic commerce and frustrate both banks and consumers;²⁶⁴ the Acts therefore specifically permit electronic retention of checks as long as, again, the record accurately reflects the information contained on the check and is accessible as necessary for later reference.

The statutes next provide that an electronic record retained in accordance with their provisions is effective to satisfy any law requiring a person to retain a record for evidentiary, audit or like purposes, unless a statute passed after the effective date of North Carolina's enactment of UETA "specifically prohibits the use of an electronic record for the specified purpose." The point, of course, is to make clear the drafters' intent that UETA supersede any extant statutory or judicial requirement regarding record retention, except to the extent that the state legislature specifically intends otherwise, and manifests that intent through the adoption of specific legislation. 266

Finally, insofar as record retention is concerned, subsection (g) expands on this notion, for it provides that the section does not preclude any state governmental agency²⁶⁷ from specifying additional requirements that must be met for the retention of records that are within the agency's purview.²⁶⁸

Section 13, the shortest section in both versions of the Act, provides simply that in any proceeding, evidence of an electronic record or electronic signature may not be excluded solely because of its electronic form. The section essentially parallels other provisions of UETA in ensuring that electronic records are not discriminated against based on their form, that is, because they are electronic rather than in traditional paper format. The provision is drafted broadly so that it encompasses any "proceeding", and although nothing in the statute or comment makes the point, this breadth is undoubtedly intended by the drafters to include not only judicial proceedings, but also administrative hearings, arbitrations and mediations and any other dispute reso-

^{264.} U.E.T.A. § 12 cmt. 6; N.C. GEN. STAT. § 66-322 cmt. 6.

^{265.} U.E.T.A. § 12(e); N.C. GEN. STAT. § 66-322(e).

^{266.} U.E.T.A. § 12 cmt. 7; N.C. GEN. STAT. § 66-322 cmt. 7.

^{267.} U.E.T.A. § 2(9); N.C. GEN. STAT. § 66-312(10) (broadly defining the term to include virtually all governmental entities).

^{268.} U.E.T.A. § 12(g) (1999); N.C. GEN. STAT. § 66-322(g) (2005); cf. 15 U.S.C.A. § 7003(c) (West 2006); 15 U.S.C.A. § 7004 (West 2006) (E-SIGN).

^{269.} U.E.T.A. § 13 (1999); N.C. GEN. STAT. § 66-323 (2005).

^{270.} U.E.T.A. § 13 cmt. (1999); N.C. GEN. STAT. § 66-323 cmt. (2005).

lution forum in which evidence is taken. While it is generally true that in these latter proceedings the rules of evidence are significantly relaxed,²⁷¹ and therefore the use of non-traditional media for the pres-

271. See Crutchley v. Crutchley, 293 S.E.2d 793 (N.C. 1982) (dictum, discussing benefits and disadvantages to arbitration; holding that, while parties may either agree to arbitrate their disputes or may choose instead to litigate, once a civil action has been filed and is pending, a court, even with the parties' consent, may not delegate its duty to resolve those issues to an arbitrator, and judgment ordering arbitration was void ab initio; moreover, while valid arbitration award concerning alimony may be agreed by the parties to be binding and non-modifiable by the courts, provisions concerning custody and child support remain subject to court's jurisdiction and are modifiable pursuant to statute). See also Gilmer v. Interstate/Johnson Lane Corp., 500 U.S. 20 (1991) (noting that one important counterweight to reduced discovery available in New York Stock Exchange arbitration is that arbitrators are not bound by rules of evidence); Alexander v. Gardner-Denver Co., 415 U.S. 36, 57-58 (1974), overruled on other grounds as stated by Rosenberg v. Merrill Lynch, Pierce, Fenner & Smith, 965 F. Supp. 190 (D. Mass. 1997) (the Court noted: "Moreover, the factfinding process in arbitration usually is not equivalent to judicial factfinding. The record of the arbitration proceedings is not as complete; the usual rules of evidence do not apply; and rights and procedures common to civil trials, such as discovery, compulsory process, cross-examination, and testimony under oath, are often severely limited or unavailable."); Republic Steel Corp. v. Maddox, 379 U.S. 650 (1965) (Black, J. dissenting); Positive Software Solutions, Inc. v. New Century Mortg. Corp., 476 F.3d 278, 292 (5th Cir. 2007) (concurring/dissenting opinion; in deciding whether arbitral award should be vacated for "evident partiality" of arbitrator, majority held that vacatur was not appropriate when arbitrator failed to disclose "trivial" prior relationship with counsel for one of parties; the concurring/dissenting judge noted:

The tradeoffs attendant on the dispute-resolution choice between litigation and arbitration are well and widely known: The principal benefits usually ascribed to arbitration are speed, informality, cost-savings, confidentiality, and services of a decision-maker with expertise and familiarity with the subject matter of the dispute. These 'pluses,' however, are not without offsetting 'minuses.' The informalities attendant on proceedings in arbitration come at the cost of the protections automatically afforded to parties in court, which reside in such venerable institutions as the rules of evidence and civil procedure. Likewise sacrificed at the altar of quick and economical finality is virtually the entire system of appellate review, as largely embodied for the federal courts in rules of appellate procedure and the constantly growing body of trial, appellate, and Supreme Court precedent interpreting and applying such rules. By dispensing with such basic standards of review as clearly erroneous, de novo, and abuse of discretion, there remain to parties in arbitration only the narrowest of appellate recourse.

A less frequently encountered and less frequently discussed distinction and its tradeoffs is the one implicated here: the vital difference between the method by which a federal judge is selected to hear a case in litigation vis-avis the method by which arbitrators are selected—a distinction hinted at by Justice White but frequently overlooked or misinterpreted. All know that trial

judges in the federal system are nominated and confirmed only after a rigorous testing of their capabilities, experience, and integrity. In contrast, arbitrators are quickly selected by the parties alone, who frequently have unequal knowledge of or familiarity with the full history of potential arbitrators. Federal trial judges are full-time dispute resolvers; the experience of arbitrators falls all along the experience spectrum, from those who might serve but once or twice in a lifetime to those who conduct arbitration with increasing regularity. The trial judge who is to hear a case is almost never 'selected' by or agreed on by the parties; rather, such judge is 'selected' or designated by objectively random or blind assignment through long established court procedures (except in the rare case of a party's successful forum shopping in a single-judge district, or consenting to try a case to a known magistrate judge). In stark contrast, it is the parties to arbitration themselves who have sole responsibility for the selection of their arbitrator or arbitrators.

It follows then that because they alone do the selecting, the parties to arbitration must be able to depend almost entirely on the potential arbitrator's good faith, sensitivity, understanding, and compliance with the rules of disclosure by candidates for the post. And, even then, appellate relief is an avis rara when it comes to questions of bias, prejudice, or non-disclosure in arbitration. Consequently, except for such background checks that the parties might be able to conduct, the only shield available to the parties against favoritism, prejudice, and bias is full and frank disclosure, 'up front,' by each potential arbitrator. And even that is far less efficacious than the safeguards that are afforded to parties in litigation through the elaborate rules of professional conduct, disqualification, and recusal, and the body of law and procedure thereon developed in the crucible of the very formal and extensive judicial system.

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Cf. Gallus Investments, L.P. v. Pudgie's Famous Chicken, Ltd., 134 F.3d 231, 233 (4th Cir. 1998) (holding that choice-of-law provision in franchise agreement, specifying that New York law would govern disputes, did not preclude arbitration panel from receiving and considering evidence concerning parties' settlement negotiations, despite fact that New York law would have barred admissibility of such negotiations in litigating, rather than arbitrating; the court said in part:

The arbitration clause covered 'any dispute with respect to either this Agreement or the adequacy of either party's performance thereunder,' and stated that 'arbitration shall be conducted in accordance with the rules promulgated by the American Arbitration Association.' The AAA's Commercial Arbitration Rule 31 provided that '[t]he parties... shall produce such evidence as the arbitrator may deem necessary to an understanding and determination of the dispute,' and that '[t]he arbitrator shall be the judge of the relevance and materiality of the evidence offered, and conformity to legal rules of evidence shall not be necessary.'

* * *

[W]hile the franchise agreement's choice-of-law clause specified New York law, the agreement's arbitration clause is equally clear that conformity to legal rules of evidence was unnecessary. The plain language of the agreement provided that disputes between the parties would be arbitrated in

accordance with AAA rules, and those rules expressly provided that the arbitrators need not apply judicial rules of evidence.

Despite the arbitration clause's plain language, [defendant] contends that to ignore the New York evidence rule would vitiate the parties' contractual choice of New York law. However, to force the panel to apply New York's (or any other) evidentiary rules would be to reject the parties' agreement that legal evidentiary rules need not be followed. Fortunately, there is no necessary conflict between the choice-of-law provision and the arbitration clause. The two clauses can easily be reconciled if interpreted to mean that New York law governs the parties' contractual rights and duties, and that the panel is free not to apply legal rules of evidence from any jurisdiction, New York or elsewhere. Such a reading gives effect to the arbitration clause while in no way undermining the choice-of-law provision.

Our reading is consistent with the Supreme Court's approach There, the Court considered a contract that, like the one [here], provided for both arbitration and the parties' choice of law. The . . . Court upheld the arbitration panel's award of punitive damages despite the fact that the state law prescribed by the contract's choice-of-law provision did not provide for punitive damages (and even though the arbitration clause itself was also silent on the subject of punitive damages). As the Court explained, 'the choice of law provision covers the rights and duties of the parties, while the arbitration clause covers arbitration.' . . . Here, the admissibility of settlement offers falls even more plainly on the 'arbitration' side, as it is a subject controlled by evidentiary rules expressly exempted from enforcement under the arbitration clause. We hold, therefore, that the parties' choice-of-law agreement did not preclude the panel from receiving and considering the evidence in question.

Id.

Palmer v. City of Monticello, 31 F.3d 1499, 1507-1508 (10th Cir. 1994) (administrative hearing that was, under the circumstances, more like arbitration proceeding than actual administrative hearing, arising by way of private arrangement between defendant municipality and administrative law judge; the court therefore noted that: "The fact-finding that occurs in arbitration is simply not the same as that which occurs in a federal court-the rules of evidence are different . . . and compulsory process is not available."); Madden v. Kaiser Found. Hosp., 552 P.2d 1178 (Cal. 1976) (upholding validity of arbitration clause in contract between board representing state employees and retirees and health care plan, containing a good, if brief, discussion of the historical judicial antipathy to arbitration provisions and their modern acceptance by the courts, as well as a synopsis of the benefits of arbitration versus litigation and other mechanisms for resolving disputes); Lentine v. Fundaro, 278 N.E.2d 633, 635 (N.Y. 1972) (arbitrators' award confirmed, despite arbitrators having split assets of dissolving partnership unevenly, where it appeared that they were trying to accomplish just result; the court said: "Absent provision to the contrary in the arbitration agreement, arbitrators are not bound by principles of substantive law or rules of evidence [citations]. Hence, the arbitrators, in an attempt to find a just solution to the controversy, might consider the inequality of the capital contributions, especially if the inequality were contrary to the partnership understanding, despite lack of ambiguity in the partnership agreement [citation]. Even if the arbitrators chose to apply the rule that parol evidence may not be considered unless the written

entation of the evidence should be less restricted and more welcome than in a judicial forum in any event, section 13 makes clear that, even in traditional judicial settings, electronic records and signatures should be permitted on the same bases as more traditional media. However, the comment makes clear that this acceptance does nothing to lessen the strictures that govern the admissibility of such evidence; thus, nothing in the section "relieves a party from establishing the necessary foundation for the admission of an electronic record" or signature, and such basic evidentiary prerequisites to admissibility as relevance and materiality, and the possibility of undue prejudice overwhelming the probative value of the electronic record or signature would also, presumably, preclude the admission of some electronic evidence under some circumstances.

Perhaps no section of UETA is more important than section 14, which specifies the rules governing automated transactions, that is, transactions in which there is interaction solely between or among machines, with no human intervention, as well as transactions in which part of the transaction is conducted by machine and part by human being.²⁷³ According to that section, a contract may be formed solely by the interaction of electronic agents, without any need for human intervention, beyond presumably the initial programming of the computer or other machine, and without even human awareness of the transaction's existence, and certainly without any human review of the transaction.²⁷⁴ In addition, a contract may be formed by the interaction of a human being and an electronic agent, with an action of the individual involved on her own behalf or on behalf of a third party, as that party's agent or otherwise.²⁷⁵ This includes interaction by the human being in which she performs actions that do not have to be performed, that is, that she is free to refuse to perform, as well as actions that she knows or should know will result in the machine completing the particular transaction or performance.²⁷⁶ As the Comment explains, this provision permits the formation of a contract when an individual clicks "Okay" or "I agree" in order to obtain information from or access to a website; the individual has thereby performed an

document is ambiguous, an award will not be set aside for misapplication of the rule [citation].")

^{272.} U.E.T.A. § 13 cmt. (1999); N.C. GEN. STAT. § 66-323 cmt. (2005).

^{273.} U.E.T.A. § 2(2); N.C. GEN. STAT. § 66-312(2) (defining "automated transaction").

^{274.} U.E.T.A. § 14(1); N.C. GEN. STAT. § 66-324(1).

^{275.} U.E.T.A. § 14(2); N.C. GEN. STAT. § 66-324(2).

^{276.} U.E.T.A. § 14(2); N.C. GEN. STAT. § 66-324(2).

action that she was "free to refuse to perform and which the individual knows or has reason to know will cause the electronic agent to complete the transaction or performance." By clicking her assent, she has enabled the machine "to complete the transaction" and has thus entered into a contract according to the terms to which she assented, assuming, of course, that the terms and the resulting contract are otherwise enforceable. 278

Whether that assumption is in fact correct—that is, whether the terms of any contract formed as a result of the application of Subsections (1) and (2) are legally enforceable—depends on Subsection (3) which, in turn, provides that the terms of any contract are to be determined by the substantive law that would otherwise be applicable to that species of contract.²⁷⁹ Two points here are noteworthy. First, and of utmost significance, it bears repeating that, except to the extent either E-SIGN or UETA specifies to the contrary, as a general principle, neither of these statutory enactments is designed to affect the substantive law; rather, their purpose is largely to validate the form that electronic transactions take, to ensure that electronic records and signatures are not held invalid or unenforceable solely because they are in electronic, rather than traditional, form. 280 Section 14(3) expresses this in no uncertain terms, making clear that the substantive law that would apply if the transaction were in paper form will apply no differently simply because the transaction is electronic.²⁸¹

Second, it follows from this that the applicable substantive law will depend upon the subject matter of the transaction, as well as the circumstances surrounding its creation, performance and enforcement. For example, if the interaction between machines or between an individual and a machine results in the formation of a contract for the sale of goods, Uniform Commercial Code Article 2 will be the "law

^{277.} U.E.T.A. § 14(2), cmt. 2; N.C. GEN. STAT. § 66-324(2), cmt. 2.

^{278.} U.E.T.A. § 14(2), (3), cmts. 2 and 3 (1999); N.C. GEN. STAT. § 66-324(2), (3), cmts. 2 and 3 (2005).

^{279.} U.E.T.A. § 14(3), cmt. 1; N.C. GEN. STAT. § 66-324(3), cmt. 1.

^{280. 15} U.S.C.A. § 7001 (West 2007); U.E.T.A., Prefatory Note; U.E.T.A. § 3, cmts. 6 and 7; § 5(a)-(d), cmts. 1-7; § 6, cmts. 1-2; § 8, cmts. 1-3 (1999). See also Amelia H. Boss, The Uniform Electronic Transactions Act in a Global Environment, 37 Idaho L. Rev. 275 (2001); Patricia Fry, Introduction to the Uniform Electronic Transactions Act: Principles, Policies and Provisions, 37 Idaho L. Rev. 237 (2001); John M. Norwood, A Summary of Statutory and Case Law Associated With Contracting in the Electronic Universe, 4 DePaul Bus. & Comm. L.J. 415 (2006) (that UETA is neutral with respect to substantive rules, e.g., the mailbox rule, which makes acceptance effective on dispatch so that the common law will apply in most instances).

^{281.} See U.E.T.A. § 14(3) (1999).

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applicable to it," whereas, if the contract were for the lease of goods. Article 2A of the Code would be the applicable law; and if the interaction forms a contract for the sale of realty, or a contract for personal services or employment, then North Carolina's common law would apply, though federal law, such as anti-discrimination statutes or labor laws, for instance, might also have to be considered. The point is simply this: just as it is true that the subject matter of a "paper transaction" may dictate whether and to what extent a particular law will apply to the contract, so too does the subject matter of an "electronic transaction"-whether it takes the form of an electronic record, one or more electronic signatures, an automated transaction or some other electronic form-determine the law applicable to it. Likewise, the surrounding circumstances may affect the law applicable to a particular transaction, whether traditional or electronic, as, for example, the applicability of the parol evidence rule to bar evidence of alleged prior or contemporaneous oral agreements, or the permissibility of introducing course of dealing, course of performance and usage of trade to explain a term in the parties' agreement (again, whether electronic or traditional) or whether a breach has occurred based on allegedly impermissible conduct at the time of the alleged breach. Again, the applicable substantive law might permit or prohibit liquidated damages, or might declare that the specified alleged conduct is, or is not, a material breach, or is or is not an anticipatory repudiation, or does or does not justify a demand for adequate assurance of due performance, and so on. In sum, Section 14 provides expressly what is implicit throughout the rest of the Act and its federal counterpart and is, therefore, an extremely important provision.

Section 15 also has significance to the formation, enforcement and breach of electronic contracts, because it specifies when, unless the parties have agreed to a different set of rules, an electronic record is deemed to have been sent and when it is deemed to have been received. as well as where an electronic record is deemed to have been sent from and where it is deemed to have been received. As to when an electronic record is deemed to have been sent, UETA provides that unless the parties have agreed otherwise—and North Carolina adds that in a consumer transaction, such a contrary agreement must be reasonable under the circumstances-an electronic record is sent when three requirements are satisfied: first, the record has to be properly addressed or properly directed to an information processing system designated or used by the recipient for the receipt of electronic records of this sort, from which the recipient is able to retrieve the record; second, the record has to be in a form that the system is capable of processing; and third, the record must either have entered a region of the system designated or used by the recipient which is under the recipient's control or must have entered some other system beyond the sender's control or the control of someone sending the record on the sender's behalf.²⁸² Although this language is cumbersome, the Comment explains that the keys to a proper sending are whether the record is properly addressed or directed to the recipient, whether the record is beyond the sender's control or within the recipient's control, and whether the form of the record enables the recipient's system to process it, that is, whether the sender has done anything to inhibit retrieval by the recipient.²⁸³ If these three requirements are satisfied, there is a proper sending.

It will be noted, once again, that this section of the Act is concerned more with "process" than it is with substance. The only question resolved by Section 15(a) is whether the sending is proper, with nothing even hinted at regarding the efficacy of the record that is sent, 284 whether it will operate, for example, as a proper offer or acceptance, or as a rejection or revocation of an offer; whether the record will satisfy the Statute of Frauds, or sufficiently establish that a contractual relationship exists between the sender and the recipient; or the myriad other questions that might arise concerning the content of the record that was sent, its proper interpretation as an apparent expression of the intentions of the parties or its legal effect as whatever the record purports to be, that is, offer, acceptance, counter-offer or other rejection of an offer, revocation of an offer, confirmation or memorandum of an oral agreement or any other contractually significant communication from one party to the other. The same is true with respect to the modest North Carolina amendment requiring any agreement between the parties that changes this process rule to be reasonable.285 In short, the section is concerned only with whether a proper sending has taken place; and only after that has been determined is it appropriate to inquire into the effect, if any, that the sending has or does not have.

It is tempting to suggest that the rule of Section 15(a) essentially codifies what might be called "the e-mailbox rule" insofar as the sending of electronic records is concerned.²⁸⁶ However, the drafters clearly did not intend for this to be the case and, indeed, earlier drafts of

^{282.} U.E.T.A. § 15(a) (1999); N.C. GEN. STAT. § 66-325(a) (2005).

^{283.} U.E.T.A. § 15(a), cmt. 2; N.C. GEN. STAT. § 66-325(a), cmt. 2.

^{284.} U.E.T.A. § 15(a), cmt. 1; N.C. GEN. STAT. § 66-325(a), cmt. 1.

^{285.} See N.C. GEN. STAT. § 66-325(a) (2005).

^{286.} See Richard A. Lord, Williston on Contracts §§ 6:32 - 6:40 (4th ed. 2007).

UETA contained an express provision that would have abolished the mailbox rule as applied to electronic records.²⁸⁷ Moreover, it must be borne in mind that neither UETA nor E-SIGN is intended to provide substantive rules of law; rather, each is essentially designed principally to validate electronic transactions, records and signatures. Thus, while it may be appropriate to apply the so-called "mailbox rule" or "dispatch rule"²⁸⁸ to electronic acceptances, making the acceptance of an offer by electronic means effective upon the dispatch of the acceptance by the offeree, ²⁸⁹ the appropriateness of such an application will be due to other state law, and not because of UETA.

One key concept in Section 15(a) is that of "control". The Comment explains that the record is deemed to have been sent once it leaves the control of the sender or comes under the control of the recipient, pointing out that the test is a disjunctive one, to take into account

287. U.E.T.A. § 113(a) (1999 National Conference of Commissioners on Uniform State Laws Annual Meeting Draft), as reported by Amelia H. Boss, *The Uniform Electronic Transactions Act in a Global Environment*, 37 Idaho L. Rev. 275, 335 (2001) ("Up until the 1999 Annual Meeting Draft, the UETA did contain a provision that an electronic record is effective, if at all, when received even if no individual is aware of its receipt. This provision was deleted at the 1999 Annual Meeting of the National Conference of Commissioners. Several reasons were articulated for the deletion, ranging from process concerns (the UETA is a procedural statute while the provision attempts to set a substantive rule of contracting) to substantive concerns (that the provision overrules the mailbox rule in a manner which might be bad policy). At the same meeting where the UETA was approved, the National Conference of Commissioners on Uniform State Laws did in fact adopt a rule on contract formation in the electronic environment, providing, within the context of computer information contracts, that an electronic acceptance is effective upon receipt.")

288. See Richard A. Lord, Williston on Contracts §§ 6:32, 6:33 and especially 6:34 (4th ed. 2007).

289. See Amelia H. Boss, The Uniform Electronic Transactions Act in a Global Environment, 37 IDAHO L. REV. 275 (2001); Patricia Fry, Introduction to the Uniform Electronic Transactions Act: Principles, Policies and Provisions, 37 IDAHO L. REV. 237 (2001); John M. Norwood, A Summary of Statutory and Case Law Associated With Contracting in the Electronic Universe, 4 DEPAUL BUS. & COMM. L.J. 415, 435 (2006) (that UETA is neutral with respect to whether the mailbox rule should be applied to acceptances, but that because the common law will determine the substantive effect of proper sending of an electronic record, the mailbox rule should apply in most instances, since "sending" under UETA "is the electronic equivalent of a person dropping a letter in the mailbox"); Valerie Watnick, The Electronic Formation of Contracts and the Common-Law "Mailbox Rule", 56 BAYLOR L. REV. 175 (2004) (arguing that mailbox rule should be applied to electronic contracts because of the need for certainty, and that electronic communications differ from person-to-person or telephonic exchanges in that they are neither "substantially instantaneous" nor "twoway" communications, as required by Restatement (Second) of Contracts § 64 for the face-to-face rule to be applied).

the fact that many electronic messages will be funneled through more than one server and, therefore, that whether the sender has lost control over the record in this setting is more important than whether the recipient has gained control over the record. By contrast, when the message or other record is transmitted through an internal system, an electronic record can leave the sender and yet remain within her control, as when the record is sent via e-mail but through an in-house system, such as would be the case for e-mails sent from one faculty member on a college campus to another, or from one member of a corporate staff to another, using the same internal server. In this case, since the sender never loses control over the record-even though she may not be able to retrieve the record—the test for whether a sending has taken place is whether the recipient has obtained control over the record.²⁹⁰ Moreover, whether or not the sender is able to retrieve the message from the recipient's system after the record has been sent is not addressed by the section, and does not affect whether the e-mail or other record has been sent in the first instance. It would be possible though perhaps illegal or otherwise wrongful-for one who has sent a letter to enter the recipient's mailbox and retrieve the letter after the post office has delivered it, but before the recipient has actually retrieved it, and this would not alter the fact that the letter had been mailed or sent in the first instance. Likewise, the fact that the sender is able to retrieve the e-mail or other record after the recipient has gained control of it does not in any way alter the fact that the record has been sent within the meaning of the statute.²⁹¹

Section 15(b) next considers the time when a record is received, and once again, it begins with the unremarkable implication that the parties may agree to a different rule as between themselves, although, once again, North Carolina has made a modest, non-uniform change, requiring that any such agreement in a consumer transaction be reasonable under the circumstances.²⁹² However, if the parties do not agree to a different rule, the default rule is that a record is received when it enters the information system that the recipient has either designated or customarily uses for the receipt of similar electronic records, and from which the recipient is able to retrieve the record that has been sent. Furthermore, the record, in order to be deemed "received", must be in a form that is capable of being processed by the recipient's system.²⁹³ While "sending" is determined by whether the

^{290.} U.E.T.A. § 15(a), cmt. 2 (1999); N.C. GEN. STAT. § 66-325(a), cmt. 2 (2005).

^{291.} Id.

^{292.} N.C. GEN. STAT. § 66-325(b) (2005).

^{293.} U.E.T.A. § 15(b) (1999); N.C. GEN. STAT. § 66-325(b) (2005).

record is within the sender's control or that of the recipient, "receipt" is determined by whether the information has entered an appropriate information processing system and whether it is in a format capable of being processed by that system. The key to the first of these factors is that the recipient must either have designated the system where the information is sent as the proper system for the receipt of such information, or must use the system for the receipt of other, similar information. As the Comment to this subsection explains, 294 just as it is true that many individuals have both business and home addresses. computer users will often have multiple addresses at which they receive e-mails and other information, and in order for information to be deemed properly received, it must be sent to the address appropriate for such information. If the recipient has designated a particular email address for the receipt of information relating to a particular transaction, he is entitled to assume that it is that address which will be used; if no address has been provided for the particular transaction, the sender should send business-related information to a business. and not a "personal" address, and if she does so, thereby sending the information to an address where "information of the type" is typically sent, the recipient will be deemed to have received the information once it arrives in the recipient's system in a form that enables the recipient to access it. 295 On the other hand, if the sender uses a system that the recipient has not specified is appropriate for this type of information, and which is not used by her for the receipt of similar information, the information will not be "deemed" to have been received; and whether the information has actually been received-as where the recipient actually reads a business-related e-mail, despite the fact that it was sent to her "personal" e-mail account-will depend on otherwise applicable rules of law.²⁹⁶

Once again, Section 15(b) does not establish or even state any substantive rules concerning the effect of receiving particular information, or information in general. Rather, the section is concerned solely with determining whether information has been received, leaving to other law the question of the effect of that receipt. Nevertheless, the section does have at least two important substantive effects. First, to the extent that it defines whether and when information has been received, it will trigger and mesh with other rules of law that are dependent for their applicability on "receipt"—for example, if other law were to start the running of a statute of limitations or otherwise take

^{294.} U.E.T.A. § 15(b), cmt. 3 (1999).

^{295.} U.E.T.A. § 15(b), cmt. 3; N.C. GEN. STAT. § 66-325(b).

^{296.} U.E.T.A. § 15(b), cmt. 3; N.C. GEN. STAT. § 66-325(b).

effect upon one's "receipt" of a specified notice, the time when receipt occurred would be determined by this subsection, although the Comment candidly notes that "the section does not resolve the issue of how the sender proves the time of receipt".²⁹⁷ In such a case, such common devices as "return receipt" computer programs that notify, or ask the recipient to notify, the sender of the recipient's receipt are less helpful than they might otherwise be, since most of these programs require the recipient at least to open the e-mail or other record before a receipt is generated. However, subject to proof of accuracy, accessibility and integrity, including proof that it is not manipulable, if the sender has a computer program that automatically generates a receipt as soon as the message or other record enters the recipient's information system, there is no reason why this could not be used to prove receipt within the meaning of the Act.

The second substantive effect is more subtle, and concerns the question of whether the recipient can manipulate the timing of receipt by his failure to access or open a record once it is accessible. By keying the concept of receipt to the accessibility of the information in the recipient's designated or customarily used information processing system, the section focuses not on whether the information is in fact accessed, but simply on whether and when it is accessible. Thus, the recipient is foreclosed from arguing that he did not receive the information simply because he did not access it, a matter reiterated in a subsequent subsection.²⁹⁸ The failure to open or read regular mail does not relieve the recipient of any responsibility that would accrue from its opening or reading, and the same is true of the failure of the recipient to retrieve accessible electronic records. Moreover, to the objection that this definition of receipt places too great a burden on the sender to prove the receipt, the answer is that no greater burden is imposed on the sender of electronic information than like information contained in a written record; in either case, if the sender must show the receipt, she will have to do so through extrinsic facts, including the possibility of computer- or other machine-generated receipts, ²⁹⁹ or testimony of third parties such as secretaries.

^{297.} U.E.T.A. § 15(b), cmt. 3; N.C. Gen. Stat. § 66-325(b). See also U.E.T.A. § 15(f); N.C. Gen. Stat. § 66-325(f) discussed below.

^{298.} U.E.T.A. § 15(b), cmt. 5 (1999); N.C. GEN. STAT. § 66-325(b), cmt. 5 (2005). See also U.E.T.A. § 15(e) (1999); N.C. GEN. STAT. § 66-325(e) (2005), discussed below. 299. But see U.E.T.A. § 15(f); N.C. GEN. STAT. § 66-325(f), discussed below, which provides that the receipt of an acknowledgement does not prove the contents of the record sent.

It is probably a reasonable inference—and certainly this is true in a paper transaction—that information will be received by the recipient at the place where he is located, that is, the place of receipt is the place of the recipient. However, Subsection (c) makes clear that the rule above applies regardless of whether the recipient is located at the place where the information is received or is at some other location. It meshes with Subsection (d), which provides that, unless the parties' electronic record expressly provides otherwise or the parties expressly agree (and not, apparently, merely agree)300 otherwise, an electronic record is deemed sent from the sender's place of business and received at the recipient's place of business. Thus, the effect of Subsection (c) is that the time of receipt will be when the record enters the information processing system designated or used by the recipient, even if that system is not located at the recipient's place of business, where the record is deemed to have been received. This could become an issue whenever the physical location of the information processing system is different from the physical location of the recipient; in such a case, it might be argued, for example, that the law of the place where the system is located should govern the transaction, since that is the place where the information was located (and accessed). However, the statute makes clear that, when location is a relevant concern, what is important is the place where the recipient or sender is located, and not where the information is "located" or where the information is accessed. As the Comment explains, information is intangible, and since the location of the processing system used by the sender or recipient to communicate the information may be unknown, unknowable, and subject in any event to change, ordinarily, when issues arise under other law that make location important, the focus is on the location of the party, and not the location of the information or the processing system. As perhaps the simplest example, suppose that Buyer (offeror) is a business headquartered in North Carolina, which uses an information processing

^{300.} Both U.E.T.A. § 15(d) and N.C. Gen. Stat. § 66-325(d) specify that the parties must "expressly" provide a different location in their electronic record if they are to avoid the default rules of that subsection, the drafters apparently intending that more than a simple agreement, as defined in U.E.T.A. § 2 and N.C. Gen. Stat. § 66-312, is required, and that one or both of the parties' records must use language that clearly indicates that the transaction is to be deemed sent from or received at a specified place. U.E.T.A. § 2 and N.C. Gen. Stat. § 66-312 defines "agreement" to mean the bargain of the parties in fact, as determined from their language or the surrounding circumstances, including rules, regulations and procedures that have the effect of an agreement under the substantive law applicable to the parties' transaction, such as, for example, course of dealing, course of performance and usage of trade in a sale of goods transaction.

system that by chance is located in Georgia, and that Seller (offeree) is a business headquartered in California, whose information processing system is located in Nevada. It is generally held that the law applicable to a contract is that of the jurisdiction where the contract was formed or to be performed.³⁰¹ It might, therefore, be argued that the governing law ought to be the law of the jurisdiction where the acceptance was sent by the offeree or received by the offeror; if one thinks about electronic messaging as a series of "information stops", one might think of Seller issuing its acceptance in California, from where it goes to the processing system in Nevada, which only then "sends" the information to Georgia, where it is finally relayed or sent to North Carolina. If the focus is on the information, it could be argued that the contract was formed either when Seller's system in Nevada sent the message to Buyer's system in Georgia, or when Buyer's system in Georgia received the information from Seller's system in Nevada. While it is true that Seller sent the message from California to Nevada, that is a matter largely of happenstance; Seller certainly did not intend to avail itself of anything having to do with Nevada, and neither did Buyer, and likewise, neither party intended to have anything to do with Georgia. Nevertheless, the acceptance was "sent" from Nevada, at least if one considers the sending to be accomplished when the message is forwarded by the processing system, which, by hypothesis, is a discrete step. Similarly, the message is "received" in Georgia; indeed, an even stronger argument regarding this can be made, since, if Buyer's server is located in Georgia, then Buyer, by accessing its service provider, is essentially reaching into that state to retrieve the message. Yet again, neither party intended-or likely even knew-that Nevada or Georgia would play any part in their transaction. It is for this reason that Subsection (d) establishes a location of the sender/recipient rule, rather than focusing on the location of the information processing system or that of the information.

Thus, the default rule, established unless the parties expressly indicate something different in their record or in their agreement, is that the sending is deemed to be from the sender's place of business and the receipt is at the recipient's place of business. The subsection then explains that if the sender or recipient has more than one place of business, the place of business to be considered is that which has the closest relationship to the particular transaction; so, if the sender or recipient is a nationwide company with multiple places of business,

^{301.} See Richard A. Lord, Williston on Contracts § 30:19 (4th ed. 2007) (concerning the interpretation and construction of contracts.).

unless the record or the parties' agreement indicates differently, the location of receipt or sending will be deemed to be the place involved in the transaction at issue. Also, if the sender or recipient has no place of business, the location of sending or receipt will be the residence of the sender or recipient.

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Reverting to the previous example, the place of business for the sender of the acceptance, Seller, under the given facts, would be California, and that is where the sending of the acceptance—and hence the acceptance—took place. As such, if the mailbox rule applies, making the acceptance valid upon dispatch, the contract would be formed in California with California law governing. If, however, the mailbox rule were not applied, the contract would be formed in North Carolina, where "receipt" of the acceptance took place.

Now suppose that the facts are changed to assume that Seller is a major manufacturer with factories in Florida, Illinois and California, and that Buyer placed its order with Seller online through Seller's computer system (still located in Nevada), but that thereafter, the plant closest to Buyer fills the order. In that case, the acceptance would still come from the Nevada system, but the sender would, presumably, be located in Florida, which is the closest facility to North Carolina, and would therefore be the factory that would fill Buyer's order; since the "sender . . . has more than one place of business, the place of business of that person is the place having the closest relationship to the underlying transaction." 302

Subsection 15(e), then, provides that an electronic record is received under the rules discussed above even though no individual is aware of the receipt. North Carolina adds a non-uniform amendment to this section that governs consumer transactions; in such a case, a record has not been received under the statute unless it is received by the intended recipient and the sender had "a reasonable basis to believe that the record can be opened and read by the recipient." It is not clear exactly what this adds to the uniform version, except perhaps to place a burden on a seller, in a consumer transaction, to prove that it had a reasonable basis for believing that the record could be accessed and read. Presumably the North Carolina amendment would be operative in a case where the consumer argued that a record, or an attachment to an e-mail, containing an order or confirmation of an order or invoice or the like, could not be opened and read, and the consumer subsequently wants to avoid the deal. If the seller is

^{302.} N.C. GEN. STAT. § 66-325(d) (2005); see U.E.T.A. § 15(d) (1999).

^{303.} U.E.T.A. § 15(e) (1999); N.C. GEN. STAT. § 66-325(e) (2005).

^{304.} N.C. GEN. STAT. § 66-325(e) (2005).

honest, and there is no fraud involved, it should be an easily-met burden for the seller to establish that it reasonably believed the record or attachment could be opened and read by the consumer. Moreover, what this adds to the notions surrounding mistaken transmissions as discussed earlier³⁰⁵—at least if the seller is honest—is unclear, though it appears that the Legislature was sufficiently worried about the possibility of fraud in a consumer transaction to enact a special non-uniform rule to govern receipt.

As noted previously, the test for whether receipt of information has occurred is whether it has entered the designated or routinely used information processing system of the recipient, and, also as discussed, since the point of entry is the time when receipt occurs, the question of whether the recipient reads the information or otherwise becomes aware of it is largely irrelevant to UETA, and, except in the consumer setting as discussed immediately above, is equally unimportant to its North Carolina counterpart, though it may be germane to other substantive law. Subsection (e) merely reiterates this fact, by pointing out that whether a person is aware that the record has been received, or reads or ignores the information, is immaterial to whether the information has in fact been received. As the Comment makes clear, this is no different from the recipient of mail who never reads it, 306 and just as that individual is typically held to have notice of what would have been revealed if she had read it, so too is the law likely to hold the recipient of an electronic record to that same standard.

Subsection (f) addresses a concern noted earlier: the ability of the sender to prove receipt of a record by the use of a "return receipt" or acknowledgement. The subsection provides that such an acknowledgement, received by the sender from the information processing system, is sufficient to prove that a record was received by the recipient, but is not sufficient, in itself, to prove that the content of the record sent corresponds to the content of the record received. Thus, a sender will often, if not typically, request that the recipient send an acknowledgement or receipt indicating that the recipient has received a particular communication; and indeed, most e-mail programs allow the user to request such receipts from all or some e-mail recipients, after which, when a message is received, the recipient after opening the e-mail simply clicks on a message that pops up and thereby notifies the sender that her e-mail has been received. The effect of Subsection 15(f), however, is that such a receipt only proves that an e-mail (or other informa-

^{305.} See text accompanying notes 206 et seq., supra.

^{306.} Id.

tion) has been received or opened by the recipient, and not what the email (or other information) said or contained. If the sender wants to prove the contents of the e-mail or other record that was received, he will have to obtain something more from the recipient, or otherwise prove the recipient's receipt of that particular communication in some other way. This might be done by sending a hard copy of the electronic record and having a secretary testify that the hard copy was sent and was identical to the electronic version; or by having the recipient send a more formal acknowledgement; or even by testimony of the sender regarding what was sent. The point is that, if it must be proven, the mere fact that the sender has received a receipt or acknowledgement from the recipient or the recipient's information processing system will be insufficient for that purpose. This again makes the North Carolina Legislature's non-uniform amendment to Subsection (e) curious: whether the consumer has received something electronically will typically be less important than the content of what the consumer was alleged to have received, and that has to be proven extrinsically in any event under Subsection (f), though again, placing the burden on the seller in a consumer transaction may make sense,

The final subsection of Section 15 provides that if a person is aware that a record purportedly sent under Subsection (a) or purportedly received under Subsection (b) was not actually sent or received. the legal effect of the sending or receipt is determined by other applicable law; it then provides that except to the extent provided by other law, the requirements of Subsection (g) cannot be varied by agreement. Unfortunately, the provision is less than clear, and the Comment does little to clarify it, for the Comment focuses only on the last sentence of the subsection, asserting that it "limits the parties' ability to vary the method for sending and receipt provided in subsections (a) and (b), when there is a legal requirement for the sending or receipt."307 However, Subsection (g) by its terms seems to say nothing about legal requirements for sending or receipt under Subsections (a) or (b), and rather seems concerned with the effect of a person becoming aware that a sending or receipt under those sections has failed. Indeed, the provision of the subsection that prohibits variation except to the extent other law permits it seems targeted at an attempt by the parties to nullify the subsection, and the subsection, by its terms, does not speak at all to "the method for sending and receipt"; rather, it speaks to parties becoming aware of the fact that a record was not sent or was not

^{307.} U.E.T.A. § 15(g), cmt. 7 (1999); N.C. GEN. STAT. § 66-325(g), cmt. 7 (2005).

received when one or both parties thought that it had been sent or received.

As discussed above, the effect of Subsections (a) and (b) is to provide that, in general, when the sender loses control over a record or the recipient gains control, the record is deemed sent, and when the record enters the designated system of the recipient, the record is deemed received. The apparent purpose of Subsection (g) is to require a subsequent reviewer (that is, a court or arbitrator) to remove from UETA's coverage a sending or receipt when one or both of the parties to the transaction originally believed that a record had been sent or received in accordance with UETA, but one or both subsequently discover (become "aware") that for whatever reason, the sending or receipt did not actually occur. In that case, instead of UETA governing the effect of sending or receipt, that aspect of the transaction will be governed by other applicable law. This subsection eliminates the possibility that a record might be deemed properly sent or received under UETA when one of the parties knows that the record was not in fact sent or received.308 In that case, UETA would not determine whether there had been a proper sending or receipt, and "the legal effect of the sending or receipt is determined by other law."309

Suppose, for example, that Buyer and Seller discuss Buyer's needs and Seller's ability to fill them in a phone conversation, and thereafter, Buyer (sender) sends an order by e-mail (an electronic record) for goods to Seller to an address provided by Seller (recipient) for the receipt of orders. According to UETA, the order would be considered "sent"—assuming that it is properly addressed and in a proper form to be processed by seller's system as required by Section 15(a)—as soon as the order "enters an information processing system outside" Buyer's control, or "enters a region of the information processing system designated or used" by Seller. Therefore, as far as Buyer is concerned, the order has been "sent". Suppose further that a day later, Buyer receives a message from his Internet service provider indicating that the e-mail could not be delivered, or that a week later, Seller, for some reason never having heard from Buyer, calls Buyer and asks where Buyer's order is. In either of these cases, Buyer would thereby become "aware" that the record it "purportedly sent . . . was not actually sent", and the legal effect of the sending would be determined by other applicable law. And, except to the extent that that other law permitted the parties

^{308.} Amelia Boss, The Uniform Electronic Transactions Act in a Global Environment, 37 Idaho L. Rev. 275 (2001).

^{309.} U.E.T.A. § 15(g) (1999); N.C. GEN. STAT. § 66-325(g) (2005).

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to vary the legal effect that it would impose, the parties may not vary this provision of UETA to effect a different result.³¹⁰

While the foregoing might seem obvious, it must be remembered that the entire purpose of Section 15 is not directed at the "legal effect" of a sending or receipt, but at the "when" and "where" of a sending and receipt, that is, at telling when a record is sent or received and where it is sent or received. However, the legal effect of a record may very closely follow the "when" or, perhaps to a lesser extent, the "where". For example, suppose that B has made A an offer to purchase property which is good until May 31, but for which A has paid no consideration to keep open, and that A, intending to accept, sends B an e-mail on May 30. A has complied with Section 15 in all respects: the e-mail is sent to an e-mail address provided by B to A for the purpose of communicating with B; it is addressed properly; it is the type of record that B should be able to access through her system and is in a form capable of being processed by her system; and finally, it has left A's control. According to Section 15(a), A's e-mail has therefore been "sent". Whether this sending would have the effect of accepting the offer would be dependent on other law outside of UETA. If the other law makes acceptance effective on mailing, presumably the e-mail would be an effective acceptance. However, if acceptance is only on receipt, then the e-mail would not be effective unless and until received. If we assume that "other law" would make the acceptance effective on mailing, then A has accepted B's offer and a contract has been formed.

Now, suppose that on June 1, A receives a telephone call from B telling A that since B had not heard from A by the previous day, B decided to sell the property to C. A tells B that A accepted the offer the day before by e-mail, which B denies receiving, and sure enough, when A checks, he sees a computer-generated message sent on June 1 that indicates that the e-mail was not deliverable. According to Subsection (g), since A is now aware that the message A thought had been sent was not actually sent, the legal effect of its sending will be determined by other law. The other law will now have to deal with the issue not of whether acceptance occurs by sending an e-mail—which would have had to have been considered in any event—but rather, whether an e-mail that is not delivered through no fault of the sender is effective as an acceptance. While it may follow by analogy to cases that hold that the acceptance by mail is valid even if the mail is never delivered, is lost or otherwise does not reach the recipient, 311 that the acceptance is

^{310.} Id.

^{311.} See Richard A. Lord, Williston on Contracts § 6:37 (4th ed. 2007).

nevertheless effective, the effect of determining that UETA's sending rule does not apply is to change considerably the issue, and perhaps the outcome. Moreover, it does this by declaring that what was a proper sending is, by reason of facts learned subsequently, no longer a proper sending.

While the apparent goal of the section—preventing persons who learn that a sending or receipt did not occur from relying on a rule that sending or receipt did occur simply because the law says that it did—is perhaps appropriate, this manner of accomplishing that goal is less than desirable. The statute raises more questions than it answers,³¹² and the solution to the problems caused by the section will have to await judicial resolution.

Section 16 of both versions of UETA is essentially identical to E-SIGN § 7021, dealing with transferable records and discussed previously, except that UETA includes within its scope not only transferable records that would be notes under Article 3 of the Uniform Commercial Code, but also records that would be documents of title under Article 7 of the UCC As explained in conjunction with E-SIGN, a "transferable record" under UETA is an electronic record that would be a note under Article 3 of the Uniform Commercial Code, or a document under Article 7 of the Code, if it were in writing where the issuer of the electronic record has expressly agreed that it is a transferable record.³¹³ Unlike the federal statute, which only applies to transferable records that relate to loans secured by real property. UETA is not so limited. The point of this provision is to mesh with UCC Articles 3 and 7 to the extent that they permit (or do not prohibit) the use of electronic negotiable instruments and documents. Thus, the balance of the section concerns itself with whether and when one has "control" of the transferable record and can qualify as a holder or holder in due course of the record under Article 3. A person has "control" of a transferable record if there is a system employed for evidencing the transfer of any interests in the record that reliably establishes that person as the person to which the record was issued or transferred.³¹⁴ That system, in turn, must be one in which the transferable record is created, stored and assigned in such a manner that there is a single authoritative copy of the transferable record which is unique, identifiable and, in general, unalterable,315 except that the record or copies may be altered to add

^{312.} Amelia H. Boss, The Uniform Electronic Transactions Act in a Global Environment, 37 Idaho L. Rev. 275 (2001).

^{313.} U.E.T.A. § 16(a) (1999); N.C. GEN. STAT. § 66-326(a) (2005).

^{314.} U.E.T.A. § 16(b); N.C. GEN. STAT. § 66-326(b).

^{315.} U.E.T.A. § 16(c)(1); N.C. GEN. STAT. § 66-326(c)(1).

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or change an identified assignee with the consent of the person with control, 316 as long as any copies of the authoritative copy are readily identified as copies, 317 and any revision of the authoritative copy is readily identifiable as authorized or unauthorized. 318 Beyond that, the authoritative copy must identify the person asserting control as the person to which the transferable record was issued; or, if it has been transferred, the person to which the transferable record has most recently been transferred. 319 Finally, the authoritative copy must be communicated to and maintained by the person asserting control or its designated custodian. 320

These provisions mesh generally with those found in Articles 3 and 7 of the UCC, as does the next provision, specifying that unless otherwise agreed, the person with control of a transferable record is considered the holder of the record as that term is defined by Article 1 of the UCC and has the same rights as an equivalent holder of a record or writing under the Code, including, if the person in control meets the requirements established by the Code, 321 rights as a holder in due course or purchaser for value of an instrument, except that there is no requirement of delivery, possession or indorsement to obtain or effectuate those rights. Essentially, this means that if a transferable record is established under UETA, assignees or transferees of that record, by obtaining the requisite transfer by the person with control, in good faith, for value, and without notice of claims or defenses, will generally take free of those claims and defenses to the same extent as would a purchaser or transferee of paper instruments or documents.

By the same token, UETA provides the obligor of a transferable record with the same rights and duties of an obligor under the UCC³²³ If the obligor on the transferable record requests, the person asserting the right to enforce the transferable record must provide reasonable proof that it is the person in control of the record, which may include access to the authoritative copy of the record and any related business

^{316.} U.E.T.A. § 16(c)(4); N.C. GEN. STAT. § 66-326(c)(4).

^{317.} U.E.T.A. § 16(c)(5); N.C. GEN. STAT. § 66-326(c)(5).

^{318.} U.E.T.A. § 16(c)(6) (1999); N.C. GEN. STAT. § 66-326(c)(6) (2005).

^{319.} U.E.T.A. § 16(c)(2); N.C. GEN. STAT. § 66-326(c)(2).

^{320.} U.E.T.A. § 16(c)(3); N.C. GEN. STAT. § 66-326(c)(3).

^{321.} U.C.C. §§ 3-302(a), 7-501 (1999); Rev. U.C.C. § 9-330 (UETA cross-references to former U.C.C. § 9-308, which has been changed by the amended Article 9 to § 9-330); N.C. GEN. STAT. §§ 25-3-302(a), 25-7-501, 25-9-330 (2005).

^{322.} U.E.T.A. §16(d) (1999); N.C. GEN. STAT. § 66-326(d) (2005).

^{323.} U.E.T.A. § 16(e); N.C. GEN. STAT. § 66-326(e).

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records sufficient to review the terms of the record and establish the identity of the person asserting control.³²⁴

In large part, the purpose of Section 16 of UETA and the corresponding section of E-SIGN is to encourage and facilitate the development of systems that will permit electronic equivalents of paper instruments and documents, thereby reducing the enormous costs associated with generating and, especially, storing and safeguarding paper.325 To do this, the statute has to embody stringent requirements that must be met with regard to authorization of the creation of electronic transferable records as well as with regard to ensuring, through the mechanism of "control," that only one person is obligated to pay and that only one person at any given time will be entitled to payment.³²⁶ The section ensures the former by specifying that it only applies to notes and documents of title, and not, for example, other commercial paper such as checks, and that the issuer of the electronic transferable record must "expressly" agree to the record being a transferable record.³²⁷ These requirements make clear that transferable records can only come about as the intentional act of the issuer at the time when the obligation is first issued; and not, for example, by converting an existing note to an electronic transferable record, since the issuer, in the case of a conversion, would not be the issuer of an electronic record.³²⁸ The section ensures the second goal, that only one person at any given time will be entitled to payment, by mandating strict requirements for what constitutes "control", requiring that the transferable record be unique, identifiable and, in general, unalterable. 329 though also providing that control may be exercised through a third party registry system, such as that in place for the transfer of security entitlements under UCC Article 8 or for the transfer of cotton warehouse receipts.330

As noted above, the section does not provide for the conversion of existing promissory notes to electronic form, nor does it specify all of the rights associated with transferable records. Thus, for example, if A agrees to the use of a transferable record to evidence a debt to B, and a transferable record is then created in B's favor, Section 16 says nothing about whether B would be able to enforce the underlying debt without

^{324.} U.E.T.A. § 16(f); N.C. GEN. STAT. § 66-326(f).

^{325.} U.E.T.A. § 16 cmt. 1; N.C. GEN. STAT. § 66-326 cmt. 1.

^{326.} U.E.T.A. § 16 cmts. 2 and 3; N.C. GEN. STAT. § 66-326 cmts. 2 and 3.

^{327.} U.E.T.A. § 16 cmts. 2, and 3; N.C. GEN. STAT. § 66-326 cmts. 2 and 3.

^{328.} U.E.T.A. § 16 cmt. 2 (1999); N.C. GEN. STAT. § 66-326 cmt. 2 (2005).

^{329.} U.E.T.A. § 16 cmt. 3; N.C. GEN. STAT. § 66-326 cmt. 3.

^{330.} U.E.T.A. § 16 cmt. 3; N.C. GEN. STAT. § 66-326 cmt. 3.

the transferable record; by contrast, if the debt were represented by a paper promissory note, B would have to present the note in order to obtain payment, and the underlying obligation would be suspended until the note was presented according to its terms and was either paid or dishonored.³³¹ Moreover, if B then transferred the electronic record to C, who took as a holder in due course, while Section 16 specifies that C has the rights of, and is subject only to defenses good as against, a holder in due course with respect to A, the Act says nothing about the liability, if any, of B to C based on B's transfer of the record to C. Under the UCC, B would make certain warranties and would, if he indorsed the note, contract to pay the note if A failed to do so; UETA, however, does not speak to these issues, and A will be liable to C only if its contract with C so provides or a court were to impose liability by analogy to the UCC.³³²

Finally, insofar as Section 16 is concerned, it should be noted that other law, outside of UETA and Articles 3 or 7 of the UCC, may apply to a transaction that is a transferable record under the section. Thus, a transferable record, to the extent that it embodies an obligation to pay money, would be an account, a general intangible or a payment intangible under Article 9 of the Uniform Commercial Code, if it were used as collateral security in a secured transaction or if it were sold or transferred by the original or any subsequent obligee. As such, it would be subject to Article 9's perfection requirements, and a secured party—including the transferee of the record—would have to file a financing statement or take control of the property (as defined in Article 9)³³⁴ to perfect its interest under Article 9.

The next 3 sections of UETA, 17, 18 and 19, are optional sections, designed to permit each state to specify whether and to what extent it wants governmental agencies or departments to "electronicize" their records, either prospectively, by permitting electronic records in the

^{331.} U.C.C. § 3-310(b)(2) (1999); N.C. GEN. STAT. § 25-3-310(b)(2). (2005)

^{332.} U.E.T.A. § 16, cmt. 4 (1999); N.C. GEN. STAT. § 66-326 (2005); see U.C.C. § 3-415 (1999); N.C. GEN. STAT. § 25-3-415 (2005) (obligation of indorser); U.C.C. § 3-416 (1999), N.C. GEN. STAT. § 25-3-416 (2005) (transfer warranties)

^{333.} See U.C.C. § 9-109(1999), N.C. GEN. STAT. § 25-9-109 (2005) (specifying the scope of Article 9 as embracing both security interests in and sales of specified property).

^{334.} See U.C.C. § 9-314(b); N.C. GEN. STAT. § 25-9-314(b) (cross-referencing other UCC provisions as to what constitutes "control", and providing that perfection may occur by secured party taking control).

^{335.} See U.C.C. § 9-310(a), (b); N.C. GEN. STAT. § 25-9-310(a), (b) (specifying the general rule that perfection by filing is required, subject to exceptions set forth in (b), which provides, among other situations, for perfection by control).

future to be created and retained, or retroactively, converting existing paper records and signatures to electronic form. As indicated above, North Carolina has omitted these sections, apparently preferring to rely on its Electronic Commerce Act, discussed earlier.

The final two sections of the uniform version of UETA are essentially housekeeping measures, Section 20³³⁶ providing for severability of any provision that might be held invalid, either generally or in relation to a particular transaction or person, and Section 21, a provision North Carolina did not deem necessary to enact, specifying the Act's effective date.

North Carolina added three non-uniform provisions near the end of its enactment of UETA, one to designate, as required by E-SIGN, that its enactment of UETA sets forth alternative procedures or requirements for electronic records and to govern their effect;³³⁷ one to combat UCITA, to be discussed below; and a consumer protective provision designed to ensure that a consumer's consent is genuine and that consumers are not otherwise misled or taken advantage of when entering into electronic transactions. The first subsection of this provision³³⁸ specifies that, with respect to consumer transactions as to which other state law requires information to be made available or disclosed to a consumer, the consent of the consumer is to be evidenced in accordance with Section 5 of the Act, as previously discussed, but that consent will only be found to exist if the consumer has "affirmatively consented" to the electronic transaction and has not withdrawn her consent, and the consumer has, prior to consenting, been provided with a "clear and conspicuous statement" telling the consumer five things:³³⁹ first, that the consumer has the right to insist upon a more traditional form in which to conduct the transaction; second, that the consumer has the right to withdraw her consent to conduct transactions electronically and any conditions or consequences of withdrawal, specifically providing that while the consequences may include termination, they may not include any imposition of fees; third, the transactions to which the consent relates;³⁴⁰ fourth, the procedures for

^{336.} N.C. GEN. STAT. § 66-330 (2005).

^{337.} N.C. Gen. Stat. § 66-328 (2005) (referring to E-SIGN, 15 U.S.C.A. § 7002(a) (West 2007)).

^{338.} N.C. GEN. STAT. § 66-327(c) (2005).

^{339.} N.C. GEN. STAT. § 66-327(c)(2).

^{340.} N.C. Gen. Stat. § 66-327(c)(2)(c) provides specifically that the statement must inform the consumer "whether the consent to have the record provided or made available in an electronic form applies only to the particular transaction which gave rise to the obligation to provide the record, or to identified categories of records that may be provided or made available during the course of the parties' relationship."

withdrawing consent or updating information; and fifth, how the consumer may nevertheless obtain a paper copy of an electronic record.³⁴¹

The next requirement imposed by the non-uniform North Carolina enactment before consent will be deemed to exist is similar to E-SIGN, requiring that the consumer be provided with a statement of the hardware and software requirements needed to access or retain records, and that the consumer confirm her consent electronically in a manner that reasonably demonstrates her ability to access the information. Furthermore, if, after the consumer has consented, there is a change in the hardware or software requirements that would create a "material risk" that she will be unable to access or retain later records that she consented to receive electronically, the record provider must inform the consumer of the new requirements and of her right to withdraw without the imposition of any previously undisclosed condition or consequence. Moreover, the consumer must, once again, confirm her consent electronically as above.

The non-uniform North Carolina consumer protection provision next specifies that, notwithstanding consent under Section 5, if a North Carolina law requires that the consumer be given information or disclosures relating to a transaction in writing, and the consumer conducts a transaction on "equipment provided by or through the seller, the consumer shall be given a written copy of the contract or disclosure which is not in electronic form."345 Moreover, in such a transaction, the consumer's consent to receive future notices is valid only if she confirms electronically, and using equipment not provided by the seller, both her agreement to receive future notices electronically and the fact that she has the software necessary for its receipt.346 The potential scope of this section is troubling, and there is no way to tell exactly what transactions this section will apply to; but it clearly applies in transactions where the consumer has already been determined by the Legislature to be vulnerable to deceptive or high pressure tactics, and therefore is entitled to notices or disclosures. Assume, for example, a prepaid entertainment contract transaction conducted at the seller's facility that is governed by the North Carolina statute requiring that the buyer receive a notice setting forth his 3-day right to

^{341.} N.C. GEN. STAT. § 66-327(c)(2)(a)-(e).

^{342.} N.C. GEN. STAT. § 66-327(c)(3).

^{343.} N.C. GEN. STAT. § 66-327 (c)(4) (2005).

^{344.} Id.

^{345.} N.C. GEN. STAT. § 66-327(d).

^{346.} Id.

cancel the transaction as part of the contract signed by the buyer.³⁴⁷ Whereas the prepaid entertainment seller might technologically be able to comply with this portion of the statute by having a buyer electronically sign the contract on the seller's desktop computer, laptop or PDA, this non-uniform provision of UETA precludes the seller's use of that device or mechanism—a state statute "requires that information relating to [the] transaction or transactions be made available in writing or be disclosed to a consumer," and by using the desktop, PDA or laptop, "the consumer conducts the transaction on electronic equipment provided by or through the seller."³⁴⁸ Therefore, the consumer must "be given a written copy of the contract or disclosure which is not in electronic form" and the consumer's consent to receive future notices would, if given electronically, have to be given using a different computer, and would have to confirm and agree to that receipt.

The apparent purpose of this non-uniform provision is to offer consumers an additional layer of protection when the consumer would otherwise be entitled to notices or disclosures and he is asked to agree to the transaction electronically using the seller's computer. The provision may, however, if literally interpreted or construed, have (perhaps?) unintended consequences. Suppose, for example, that the consumer enters into a consumer credit sale regulated by the exceptionally broad North Carolina Retail Installment Sales Act³⁴⁹ to purchase a Dell computer from a Dell computer kiosk in a mall, using the kiosk's equipment to order the computer with assistance from a kiosk employee. The Retail Installment Sales Act requires a notice of preservation of claims and defenses be given to the consumer in a consumer credit sale, similar to that required by the Federal Trade Commission.350 It would seem that the non-uniform North Carolina provision would apply to this transaction and the kiosk would have to give the consumer a copy of the transaction in non-electronic form. This is hardly a difficult burden. However, suppose when the consumer gets her computer that she immediately sets it up and begins

^{347.} See N.C. Gen. Stat. § 66-119, which defines a "prepaid entertainment contract" as a contract where the buyer pays or is obligated to pay for certain services—generally, dance lessons, dating services, martial arts or health club memberships—in advance of receiving the service. The statute requires the seller, inter alia, to give the buyer a copy of the contract at the time he signs the contract, and requires a ten point boldface notice of a 3-day right to cancel. The statute also requires the seller to give the buyer a copy of the contract at the time that he signs the contract, which, presumably, could be done electronically were it not for the non-uniform UETA provision.

^{348.} N.C. GEN. STAT. § 66-327(d) (2005).

^{349.} N.C. GEN. STAT. § 25A-1 to 25A-45.

^{350.} N.C. GEN. STAT. § 25A-25.

communicating on-line with Dell, signing up for warranty coverage and so on; and thereafter, Dell sends her a solicitation to purchase a compatible printer, which is deemed to fall within the Installment Sales Act.³⁵¹ Query whether the consumer has "conduct[ed] the transaction on electronic equipment provided by or through the seller" so as to trigger the non-uniform provision's requirements and prohibitions?³⁵² The literal terms of the statute seem to be met, but it also seems inconceivable that the Legislature intended to encompass this transaction. Whether the statute reaches this far may never be known; but as electronic transactions become more commonplace, the last thing North Carolina needs is a fuzzy, non-uniform statutory provision, passed with good motives but largely unnecessary and unintentionally vague.

The next non-uniform provision is far less troublesome, though its effect is even more far-reaching. It provides that oral communications or recordings of oral communications do not constitute electronic records for purposes of the section, the Legislature apparently intending to preclude the consumer's consent and notices regarding withdrawal of consent from being validly obtained by a recorded conversation.³⁵³ The subsection is curious in that it is limited to "this section", yet specifies that it is applicable "except as other [sic; otherwise?] provided under applicable law", and (a), the section does not otherwise speak³⁵⁴ to oral communications and (b), there would not seem to be any otherwise applicable law that might make recordings of oral communications under this section "electronic records". But, as noted above, this curiosity notwithstanding, the existence of this non-uniform provision is unlikely to cause any difficulty and is probably helpful in precluding one from arguing that a consumer's consent was recorded, and therefore valid.

The final non-uniform provision in this section is an anti-forum selection provision that meshes with and specifically refers to other North Carolina law.³⁵⁶ According to the provision, if a North Carolina consumer enters into a consumer transaction which is created or documented by an electronic record, the transaction is deemed to have been entered into in North Carolina, and therefore, is subject to North Caro-

^{351.} N.C. GEN. STAT. § 25A-2(d); cf. 16 C.F.R. § 433.2 (2007) (Federal Trade Commission's Holder in Due Course Rule).

^{352.} N.C. GEN. STAT. § 25A-2(d).

^{353.} N.C. GEN. STAT. § 66-327(e) (2005).

^{354.} Pardon the pun!

^{355.} N.C. GEN. STAT. § 66-327(e).

^{356.} N.C. GEN. STAT. § 66-327(f) (referring to N.C. GEN. STAT. § 22B-3).

lina's "anti-foreign-forum selection" statute, which makes void as against public policy pre-dispute forum selection clauses requiring litigation in a foreign jurisdiction.³⁵⁷ To the extent that the effect of the non-uniform provision is to make electronic transactions subject to the same principles as govern traditional paper transactions, it is hard to fault the Legislature, though fault might be found with the anti-foreign-forum selection statute itself.³⁵⁸

The final non-uniform provision also implicates the final statute dealing with electronic contracting, UCITA, the Uniform Computer Information Transactions Act, which has significantly less importance than otherwise might be the case because it has to date been adopted in only Virginia³⁵⁹ and Maryland.³⁶⁰ Moreover, North Carolina is one of at least four states that have passed what might be termed "anti-UCITA legislation", ³⁶¹ providing that a choice of law provision in a computer information agreement ³⁶² that provides the contract is to be interpreted according to the laws of a state which has adopted UCITA (or a substantially similar law) is voidable, and that instead, the contract is to be interpreted by the law of North Carolina if the party subject to the choice of law provision is a resident of, or has its principal place of business in, North Carolina.³⁶³ Furthermore, North Carolina's anti-UCITA provision makes clear that the provisions of the law

^{357.} N.C. Gen. Stat. § 22B-3 (2005) provides: "Except as otherwise provided in this section, any provision in a contract entered into in North Carolina that requires the prosecution of any action or the arbitration of any dispute that arises from the contract to be instituted or heard in another state is against public policy and is void and unenforceable. This prohibition shall not apply to non-consumer loan transactions or to any action or arbitration of a dispute that is commenced in another state pursuant to a forum selection provision with the consent of all parties to the contract at the time that the dispute arises." The courts have held that the portion of the statute that speaks to arbitration is preempted by the Federal Arbitration Act, 9 U.S.C.A. § 2, see Boynton v. ESC Med. Sys., 566 S.E.2d 730 (2002), so that a forum selection clause that is included in an agreement to arbitrate will be given effect; however, if the parties' agreement contains only a forum clause, and not an arbitration clause, the statute would have effect.

^{358.} Joseph E. Smith, Note, Civil Procedure-Forum Selection-N.C. Gen. Stat. § 22B-3, 72 N.C. L. Rev. 1608 (1994).

^{359.} VA. CODE ANN. § 59.1-501.1 et seq. (2006).

^{360.} Md. Code Ann., Com. Law § 22-101 et seq. (2005).

^{361.} N.C. Gen. Stat. § 66-329 (2005). See also Iowa Code Ann. § 554D.104 (West 2004); 9 Vt. Stat. Ann. tit. 9, § 2463A (2003); W. Va. Code Ann. § 55-8-15 (LexisNexis 2000).

^{362.} See N.C. Gen. Stat. § 66-329 (2005) (defining a computer information agreement as an agreement that would be governed by UCITA or a substantially similar law of the chosen state).

^{363.} N.C. GEN. STAT. § 66-329 (2005).

cannot be varied by agreement, and that the law remains in effect unless and until North Carolina adopts UCITA. The net effect of this anti-UCITA statute is to deny effect to choice of law provisions under which UCITA would apply to a contract, making them voidable at the option of a North Carolina resident; the obvious purpose of the legislation is to send a strong message that UCITA is not welcome in this jurisdiction.

Conclusion

Electronic transactions and electronic contracting are here to stay. The Internet has changed the way people do business, and the law, as has been the case historically, has been reactive rather than proactive. The federal and state statutes that have been passed generally permit, but do not require, the use of the new technology, and are principally concerned with validating electronic transactions, rather than regulating them substantively. Because both the technology and the law are new, however, and because each day tens of millions of Americans, and millions of North Carolinians, engage in electronic transactions and contracting, these statutes are likely to get increasing scrutiny by lawyers and courts. When that occurs, courts and practitioners will have to become familiar not only with the substantive law that governs a particular contract or transaction, but with the law that underlies the parties' ability to use the technology to its best effect. While the statutes are often straightforward, they are also often complex; and it is hoped that this article will have removed some of that complexity.