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# INTERNATIONAL INFORMATION TRANSACTIONS: AN ESSAY ON LAW IN AN INFORMATION SOCIETY

*Raymond T. Nimmer\**

## INTRODUCTION

The world has changed.

The services and information sectors of the economy have outstripped the goods sectors in size and importance. That economic change resulted from increased demand and a rapidly expanding technological capability to deliver information and services without regard to distance and at minimal cost. The resulting change for businesses is profound.<sup>1</sup> It affects business structure as well as how companies engage in transactions.<sup>2</sup> The change for law will also be profound.

Internet accelerated this, of course, but even without the Internet, the social and economic changes were inevitable and many had already occurred. Online digital systems of all types create a "death of distance." That death of distance affects how one does business and how people and organizations interact.<sup>3</sup> It affects how law should be formulated.<sup>4</sup> Indeed, it ultimately

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1. See Bernard Wysocki, Jr., *The Big Bang: Some Industries May Find Themselves Blown Apart by the Digital Age*, WALL ST. J., Dec. 31, 1999, at B34 ("information about objects is quickly becoming more valuable than the objects themselves").

2. See Joseph B. White, *The Company We'll Keep: Corporations Aren't Going to Disappear; But They're Going to Look a Lot Different*, WALL ST. J., Dec. 31, 1999, at B36. "[H]aving a lot of physical assets now doesn't make you an important company . . . . In the future, corporations will define more of their value by intangibles—the creativity of their designers . . . the proficiency of their software architects . . . the knowledge of marketers . . . and even the strength of their culture . . . ." *Id.*

3. See generally FRANCES CAIRNCROSS, *THE DEATH OF DISTANCE: HOW THE COMMUNICATIONS REVOLUTION WILL CHANGE OUR LIVES* (1997).

4. See, e.g., Paul Edward Geller, *From Patchwork to Network: Strategies for International Intellectual Property in Flux*, 31 VAND. J. TRANSNAT'L L. 553 (1998); David R. Johnson & David Post, *Law & Borders—The Rise of Law in Cyberspace*, 48 STAN. L. REV. 1367 (1996); Raymond T. Nimmer, *Licensing on the Global Information Infrastructure: Disharmony in Cyberspace*, 16 NW. J. INT'L L. & BUS. 224 (1995).

affects how we will see the world of commerce and society.

Changes of the sort our economy has experienced often engender calls for regulation. Sometimes these are based on real concerns about real substantive issues. More often, they are based on a desire to use law to retain (or return to) the former status quo. But there are no illustrations where that effort succeeded in the face of true economic, social and technological change. Modern information markets are, and should be, largely defined by agreements and market choice, rather than by regulation. In effect, the market chooses its own direction, restrained only at the extremes by law. Policy statements in the United States and elsewhere routinely support that core principle. Yet, that aspiration is not always achieved. There is a fundamental issue today about the nature of the law that should apply to economic activity in computer information. The proper answer is that law should support transactional choice and not regulate it except where the regulation is clearly essential to fundamental public policy, the achievement of which clearly outweighs the cost of regulation.

This essay explores several themes in this international information age. First, I discuss the blurring engendered by information systems, new methods of contracting, and the change from a goods-centric market to an intangibles-centric economy. These changes have created a far more diverse marketplace for information than has ever existed. The diversity covers both different substance and different rights. It affects how information is dealt with. The diversity is shaped primarily by technological and market forces, including contract terms, rather than traditional intellectual property rights rules. That is significant for commerce. It is also significant for law because it changes the relationship between intellectual property law and the modern marketplace.<sup>5</sup>

The diversity also blurs traditional categories of business and law. Once relatively stable lines between services, goods and information products are no longer as clear or, even, sus-

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5. Of course, these same influences have also created new diversity in goods-based markets, changing many of the ways in which vendors or buyers of goods interact. For example, as this was being written, the three largest automobile manufacturers in the United States announced their intent to create an electronic marketplace for suppliers, based in part on an auction model of selling and buying supplies for the manufacture of automobiles.

tainable. Information technology enables both the automation of services and the mass customization of information products. Indeed, it also enables mass customization of what we formerly treated as simple goods, sold on a mass market for general use. The changes are important for law since, by and large, legal regimes applicable to commerce are grounded on classifications grounded in the older economy. In recognizing the shift in these categories, we will need to reexamine the terms under which law responds to transactions involving the newly blurred groupings. We need different tools for understanding the role of law and the appropriate approach to facilitate commerce while structuring rules to avoid real abuse in the new context.

My second theme deals with a change that is perhaps even more obvious to the casual observer, but which presents equally fundamental challenges to law pertaining to information commerce. The same processes that cause the blurring of categories are causing a physical uprooting of commerce. The intangibles (information and services) market is global in nature in a manner never seen before. This creates issues about the scope of state sovereignty and about the degree of sustainable cost caused by uncertainty, conflict and inadequacy of law globally. Ideas of physical location and physical distance are shattered in Internet where a licensor (vendor) and licensee (customer) can as easily interact across thousands of miles as they can across their own backyards. Where either party is located at the time of any particular transaction and where the information or service is delivered or provided is ultimately a circumstantial, rather than an essential element of the contractual relationship. We are left, then, with an entirely new form of business enterprise and, at present at least, with only the beginnings of answers in how to adjust the idea of applicable law and the foundations of sovereignty to reflect that new context.

When viewed from the business perspective, these phenomena open new possibilities for commerce. When viewed from the more limited vantage of law and legal policy, the death of distance and the physical uprooting places a new vivid emphasis on how we go about determining what law should govern an information transaction. I argue that the basic premise in making that decision should be to support the new methods of contracting and of delivering information electroni-

cally on a global basis. Given that premise, choice of law should be governed by the agreement of the parties. In the absence of agreement, the choice-of-law rules should provide a clear rule that supports transactions by reducing legal compliance costs.

Finally, I discuss several issues dealing with the basic nature of contracting in electronic commerce relating to computer information. Throughout the world, states and countries have begun to address how contract law should be structured (or restructured) to accommodate the different modes of entering into contractual relationships and performing them in online environments. And the methods of contracting are in fact different. The online world entails a new level of automation in contracting, a different method of recording assent and the terms of a contract, and a different type of interaction between the provider and client than was true in the paper world. In each of these respects we need to adapt our concepts about the technology and practice involved in commercial contracts, making sure that while the adaptation reflects the new context, it does not respond to unwarranted desires to restrict or restrain new commerce where no adequate policy grounds other than an uneasiness with change justify the restrictions.

Rather than survey the full range of contract law issues here, I focus on two. The first deals with whether electronic (digital) records or actions satisfy requirements in law for written papers and written signatures. As most who have discussed this question have concluded, it seems clear to me that electronic records should fulfill writing requirements except perhaps in limited extreme cases where there is a clear reason in policy to insist on an actual writing or an actual written signature. In a world consistently moving further and further into widespread use of and reliance on digital systems, it is anomalous to act in law as if digital records are not satisfactory surrogates in most cases; the laws requiring writings were enacted in a world where that format was the only commercially available means of recording information. Most new state laws and uniform law proposals have responded to this fact by proposing a doctrine of equivalence or adequacy, generally supplanting statutory requirements for a writing by making their digital counterparts adequate in law. Yet, some now propose that there should be procedural preconditions for use of electronics in some cases, that there must be initial and

continuing agreement to use, and that a lengthy list of mostly consumer-related rules be treated as requirements that cannot be met by electronics. The rationale for these steps appears to be grounded principally in fear of new technology, rather than reasoned belief that a substantive harm is created by allowing use of electronic systems. If broadly adopted, however, the harm to commerce and the degree of dissonance created between law and modern social and business practice could be substantial.

The second theme deals with the idea of assent in an online environment. Under U.S. law, as carried forward in the proposed Uniform Computer Information Transactions Act (UCITA), assent can be shown by conduct indicating assent.<sup>6</sup> This is important in online information commerce because many (most) contract-causing interactions are in whole or in part the result of remote, automated activity, where conduct rather than words or writings prevail. UCITA validates that semi or fully automated contracting activity, while putting into place several procedural safeguards. Early proposals for a European Union Directive on Electronic Commerce similarly validate the concept of contract formed by conduct. There exists the possibility of a global, validating structure, which also provides protections against inadvertence and mistake in modern electronic commerce activities.

#### I. BLURRING: INFORMATION MARKETPLACE AND BLURRED CATEGORIES

We know the first premise: "the economy has changed." Yet, it is another thing to come to grips with the consequences it has for law and business. The changes are fundamental and have been so rapid that there is some tendency intellectually to reject them, clinging to the belief that what existed in the past has not truly changed. Yet, the first premise inevitably yields a second: the change in the economy has profound consequences for how we view commerce and how law should respond to it.<sup>7</sup> While some are unwilling to accept this reality, this unwillingness is an ordinary and predictable result when

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6. UNIFORM COMPUTERS INFORMATION TRANSACTIONS ACT § 112 (1999) [hereinafter UCITA].

7. *See, e.g.*, M. ETHAN KATSH, *LAW IN A DIGITAL WORLD* (1995).

a fundamental paradigm shift occurs.<sup>8</sup> The emergence of new paradigms is always accompanied by professional insecurity. Uncertainty breeds resistance. But that cannot forestall reality.

There has been an exponential change in the commercial and social role of information assets and value associated with them. That change affects how businesses and business activities are organized. It is characterized by an increased demand for digital products and services along with an increased flexibility in how commercial activities can be organized. The demand generates and has been generated by a technological revolution coupled with an economic revolution. The consequence is a fundamental change. We no longer live in the world of our fathers or mothers. We live in a new world. The new world consists of blurred product, service, and information categories, along with fiercely competitive new methods of doing business and new forms of commercial subject matter.

One aspect of the new information economy lies in electronic commerce.<sup>9</sup> Properly understood, electronic commerce envisions new marketplace and new methods of doing business enabled by the convergence of computer information technology and the development of information and services as the centerpiece of the new economy. In discussing legal issues in electronic commerce, we must avoid the fallacy of the old market. This is a new environment. It differs in what business models apply, what is sold or licensed, how it is made available, across what distances, and what information is available to purchasers.<sup>10</sup>

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8. See generally THOMAS S. KUHN, *THE STRUCTURE OF SCIENTIFIC REVOLUTIONS* (3d ed. 1996).

9. Electronic commerce will be the single most important factor in expanding international trade in this new century. Predictions range from \$330 billion (U.S.) by 2001-02 and \$1 trillion (U.S.) by 2003-05. See ORGANISATION FOR ECONOMIC COOPERATION AND DEVELOPMENT, *THE ECONOMIC AND SOCIAL IMPACT OF ELECTRONIC COMMERCE: PRELIMINARY FINDINGS AND RESEARCH AGENDA* 27 (1999).

10. Among the numerous illustrations of this change in the market is the emergence of the "auction" as a format for major transactions involving not only consumer products, but also a vast array of commercial products. In a relatively simple illustration of this, as this was written, three large auto manufacturers announced plans to establish an Internet auction framework for acquisition of parts for constructing new automobiles. The open auction format would allow manufacturers and suppliers to partake in an open-information environment that could not be duplicated without the special capabilities of global information networks and the scaled changes that have occurred in transportation services. See Keith

Children of the past were weaned on a mass-market in consumer goods. They often assume that the issues in electronic commerce are also those of a consumer mass-market. Yet, electronic commerce is not primarily that. Most value exchanged online in electronic commerce today occurs between businesses. Business-to-business transactions in electronic commerce exceed consumer transactions by a huge factor and are expected to grow at a rapid rate.<sup>11</sup> There are many reasons for this of course, and a number of them relate to the fact that electronic commerce opens a new trading format with global characteristics for businesses.

Beyond business-business trade, however, computer information systems make former concepts of a mass-market less pertinent. The primary value in the information market lies not in toasters, televisions, or drill presses, but in information and services. Modern information systems and the contracting practices that support them enable tailoring services and products to fit niches, rather than mass markets. This enables a new format for distribution that is especially relevant to information industries. It entails "mass customization."<sup>12</sup> An information product can be put in commerce generally (available to the mass audience) and yet simultaneously customized for particular clients by the provider, the recipient, or automated operations. In a single, online posting, I can simultaneously offer a database consisting of all reported decisions of U.S. state and federal courts, and numerous tailored databases focusing, for example, solely on decisions in the state of Texas or decisions of the U.S. Tax Court. The data, once placed in a form for marketing, can be subdivided by software techniques without requiring new products or production. The price for each of the databases can be made to reflect the market demand.

Computer information systems and the shift toward digital

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Bradsher, *Big 3 Automakers Join Forces on Internet New Business-to-Business Venture Would Streamline Purchasing of Supplies*, SAN FRANCISCO CHRON., Feb. 26, 2000, at D1, col. 2.

11. See, e.g., *GartnerGroup Says Business-to-Business E-Commerce Transactions Becoming More Global* (visited Mar. 28, 2000) <<http://www.gartner4.gartnerweb.com/pub...tic/aboutgg/pressrel/pr021600.html>>. The Gartner Group forecasts business-to-business e-commerce to be greater than \$7 trillion by the year 2004, rising from a level of over \$145 billion in 1999. *Id.*

12. See generally STANLEY M. DAVIS, *FUTURE PERFECT* (1987).



delivery of information and services allow products to be duplicated at minimal cost and distributed electronically. This reduces the need for large capital and complex distribution systems. As a consequence, many providers in computer information markets are small. While there are large companies, every individual entrepreneur is or can be an information or services provider. A small company in Maine can interact with a large company in Australia for the same cost as if it were selling to its neighbor. The average size of a U.S. software company is less than 12 employees.

#### A. *Market Differentiation*

We will focus on information markets, rather than on the effect of information systems on business structure. When we do this, it is clear that the information economy entails a burgeoning diversity. The new types of services, resources, business models and the like do not reflect chaos, but rather a vibrant competition. There is an expanding and changing array of options, products and services. Businesses that have a chance of surviving understand this. But lawyers have not yet addressed the importance of this new diversity in information products and services *for law*.

On what basis are these diverse products and services structured?

There are numerous answers to this. One practical answer is simple: the basis lies in the response of the market and in economic opportunities. Sustainable distinctions in products ultimately depend on whether the distinct products attract a positive market response. In the computer information economy, value does not lie mainly in tangible assets. As a result, the capability to tailor products is amplified. An automobile, once built, can be modified only with substantial, costly and skilled effort. A computer information database, on the other hand, ordinarily carries with it the inherent capability to alter its structure or utility with relative ease.

There are some who think that, because the economy deals with information, the basis of product differentiation must lie in intellectual property law. That is not true. Even viewed from the narrow perspective of law, there are many and wildly different bases on which information or information-based services are differentiated in the modern information economy.

Some lie in the nature of the information. But even for otherwise identical information, differentiation occurs through contract terms,<sup>13</sup> technology controls on use of the information,<sup>14</sup> and the ability to deliver similar information in different ways that fit different value configurations. Diversity in the marketplace is created and supported in various ways and no one source dominates. Instead:

- Some hinge on differences in the information itself.<sup>15</sup>
- Some hinge on who compiles the information.
- Some hinge on how information is compiled.
- Some hinge on technology restrictions on use of information.
- Some hinge on how the information is delivered.
- Some hinge on how often information is delivered.
- Some hinge on control of tangible property.
- Some hinge on contract terms.
- Some hinge on intellectual property rights.

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13. *See, e.g.*, DSC Communications Corp. v. Pulse Communications, Inc., 170 F.3d 1354 (Fed. Cir. 1999); ProCD, Inc. v. Zeidenberg, 86 F.3d 1447 (7th Cir. 1996); Frontline Test Equip., Inc. v. Greenleaf Software, Inc., 10 F. Supp.2d 583 (W.D. Va. 1998).

14. Technological controls shape the scope and nature of uses of, or access to, copyrighted and other types of information products. This was recognized in the Digital Millennium Copyright Act with the exception of some uses that qualify as fair use under applicable copyright law. *See* 17 U.S.C. § 1201 (1998). It has also influenced the development of WIPO copyright treaties on an international level.

15. At the "atom" level, each of these consists of bits of information on a medium from which it can interact with other machines or with humans. If the medium is the same and there were no visible labels, an observer could not tell the difference between the three until they were used in an appropriate machine. But the atoms and bits have entirely different meanings and functional content in terms of their use and their commercial relevance.

Many of the factors that differentiate the information market have both a legal and a practical basis.

The modern information market is different from the pre-digital information world. In this context, it is pertinent to ask: what is the continuing role of intellectual property rights? If we look at the old world (of the 1950's and 1960's) we could say that, at least in the mass-market, we had intellectual property law rules that fit the then-ordinary modes of transfer. Now, we have different modes of transacting and a differentiated market based on new criteria. One thing is clear: any legal response cannot be to simply transport old ideas to new commerce hoping to force it back into old molds. As we say in Texas: that dog won't hunt.

### *B. Services and Information*

I have been referring to the services and information sectors. In the information economy, the line between these categories blurs, causing a need to reconstruct how we treat them in law and policy.<sup>16</sup> Computer information systems are a primary factor in the expansion in international commercial significance of commercial "services" industries. Modern information systems enable automation and remote delivery of, or access to, services. Indeed, many information products resemble former services products more than they do former information products.

Historically, the idea of "services" connotes the reality of "not goods." The idea of "information" also connotes "not goods." However, just as applicable law applies differently to goods as compared to services, it has different application to information as compared to either goods or personal services. A distinction between "goods" and "services" has importance in international trade since multilateral agreements hinge differ-

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16. See, e.g., STAN DAVIS & CHRISTOPHER MEYER, *BLUR: THE SPEED OF CHANGE IN THE CONNECTED ECONOMY* (1998).

Clearly, it no longer makes sense to think of the world in terms of products and services. Instead, we should be thinking more broadly of product-service hybrids—"offers" in [our] lexicon. Offers are "productized" services and "servicized" products. They're both fish and fowl, if you like. And more frequently, it will be hard to sell anything that doesn't represent that combination.

*Id.* at 7; see also ROBERT B. REICH, *THE WORK OF NATIONS: PREPARING OURSELVES FOR 21ST CENTURY CAPITALISM* (1992).

ent obligations on the distinction.<sup>17</sup> Similarly, multilateral agreements separately address information rights as a trade issue, independent of services or goods.

Yet, this is not a world where the labels of the past long survive. Their breakdown affects law in complex ways. Consider, for example, individuals who provide investment advice to clients (e.g., stock market, commodities). The advisors previously dealt personally with individual clients, creating a natural limit on the number of clients that could be serviced, the total fees that could be charged, and the physical relationship between where the advisor and the client were located. The computer information world, however, allows various alternatives which enable the advisor to automate and mass-produce customized advice. These involve the development and distribution (for a fee) of interactive digital information products. Is that distributed, interactive computer information product properly treated as automated information, interactive goods, or impersonal services? The answer to these questions affects what law can be applied to the computer information.

One court held that this type of product is information, which cannot be regulated under the First Amendment.<sup>18</sup> The court emphasized that, while regulation of professional services is permitted in U.S. law, regulation of speech is generally not permitted. The court summarized its view in the following terms:

[The Commission] is attempting to protect the public against false doctrine. That is, the Commission seeks to protect the public from obtaining and acting upon advice and recommendations offered by persons who it believes are not adequately qualified. In this regard, [it] is attempting to act as the watchman for truth for the public.<sup>19</sup>

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17. See John Gero & Tom Oommen, *Electronic Commerce and Trade Policy—The Government's Role*, 25 CAN.-U.S. L.J. 323 (1999); General Agreement on Trade in Services, 33 I.L.M. 1168 (1994) [hereinafter GATS]; General Agreement on Tariffs and Trade, Oct. 30, 1947, 61 Stat. A-11, T.I.A.S. 1700, 55 U.N.T.S. 194 [hereinafter GATT].

18. See *Taucher v. Born*, 53 F. Supp. 2d 464 (D.D.C. 1999).

19. *Id.* Cf. *Unauthorized Practice of Law Committee v. Parsons Tech., Inc.*, 1999 WL 47235 (N.D. Tex. 1999), *vacated as moot*, 179 F.3d 956 (5th Cir. 1999) (holding that Quicken Family Lawyer, an interactive software program, violated Texas unauthorized practice of law statute).

That is not language that a court would use in discussing regulation of a service provider.<sup>20</sup> Yet, properly programmed and enabled to receive online updates, the computer software can replicate on a mass basis the advice that the advisors otherwise provide directly and in person to individual clients. The line for purposes of regulatory competence between services in person and automated information products that interact with a client is not clear.<sup>21</sup> Of course, the court was not asked to address a second classification question: was distribution of the software a transaction in "goods"? The answer to that question might have significance in determining the nature of liability risk that the advisors undertake in their new method of distribution.

Yet, the advisors were not limited in practice to the two methods of distributing their value that we have discussed: personal contact or interactive software. It would be equally possible for them to place the automated, interactive system on the Internet, charging a fee for persons who access it. This frees the system entirely from any tangible means of distribution and, equally important, frees the advisors entirely from any geographical or national limits. However, what is or should be the response of governments and regulatory entities to this step? Does First Amendment protection remain intact or is the advisory system now a "service"? Which country has the capacity to regulate it or to prevent such regulation?

## II. PHYSICAL UPROOTING: THE DEATH OF DISTANCE

An information contract can be created *and* performed electronically across large distances with little cost, time, or effort. This uproots information transactions from physical location and it does so in a way that the traditional goods-based commerce cannot comprehend. This uprooting allows the delivery of services and of information through remote, auto-

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20. Another court approached similar facts differently, not questioning the constitutional issue, but allowing regulation where the advisors also offered to place trades for customers. See *Commodity Futures Trading Comm'n v. AVCO Fin. Corp.*, 979 F. Supp. 232 (S.D.N.Y. 1997).

21. A difference exists between services associated with knowledge-based benefits which can be automated and widely distributed, and services tied to the particular place where the individual provider exists (e.g., restaurant services). See REICH, *supra* note 16.

mated systems. It enabled a new multinational business competition. This competition, unlike multinational competition in goods, is not limited to large multinational companies. Many players in this new market are quite small.

Businesses and business entrepreneurs view this as an immense new opportunity. In law, however, uprooting creates a new complexity that throws open concepts of sovereignty, what law controls, where any legal actions may be brought, and how national protections or regulations translate into a truly global environment. These issues are important because, in computer information transactions, there is great diversity in fundamental approach to legal issues among states and internationally.

There are differences in contract law among U.S. states and between the United States and other countries. In old commerce, the impact of the differences was controlled by the nature of commerce; goods transactions ultimately are bounded by the location or destination of the particular goods. With the shift to information commerce, the effect of the differences in law expands exponentially. That there are important differences cannot be doubted:

- There are differences in Texas consumer law as contrasted to Maryland.
- The consumer law of European countries is different still.
- The law of New York differs from the law of California on idea submissions.
- There are international differences in protection of free speech.
- U.S. states differ on the existence of an obligation of good faith in performance.
- Eight (or less) states have adopted the *Restatement (Second) of Contracts* § 211(3) which invalidates some “unex-

pected terms" in contracts, while over forty have not.<sup>22</sup>

- European statutes abrogate certain "unfair terms" in contracts, many of which terms are common and enforceable in the United States.
- And on and on . . . .

All of this has been true for generations, of course, but the death of distance changes the stakes as does the shift from a goods-based economy to an information and services economy. Consider, for example, a company that publishes and sells analytical articles on various issues. It creates the works in one country and makes them available to customers in other countries, including France and Iran. In the paper-based information world (similar to the goods-based world), to distribute to France and Iran requires an affirmative choice to send tangible objects into those countries. To create a market in those countries requires transportation costs, a distribution system, investment to support these, and advertising to encourage purchases. In electronic commerce, in contrast, this can be done digitally without a distribution system (other than Internet) and with very small investment. There must, in fact, be an affirmative effort to stay out of those countries; doing so may be impossible.

The case with respect to goods is only slightly less affected by electronic commerce and its global capabilities. Agreements can be made electronically without regard to distance or actual contact between individuals, but the television set, toaster, engine or drill press that is the subject of the contract must itself eventually be delivered into the purchaser's country. The need for shipment and delivery locks the transaction into a location and tangible focus. Of course, as is characteristic of the modern economy, there have arisen a variety of transportation (services) companies that specialize in small, rather than large loads, which enables vendors to deliver products outside their local region quickly.

The prerequisites for actually engaging in international

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22. See James J. White, *Form Contracts Under Revised Article 2*, 75 WASH. U. L.Q. 315 (1997).

commerce under the old systems and the nature of the old subject matter ensured that there would be a conscious choice to enter transactions in a jurisdiction and, often at least, an opportunity to examine the law and practice in target countries. In electronic information commerce, the electronic systems lies in part in their ability to create ubiquitous distribution points without significant incremental cost. Yet, that value is reduced when we inject legal risks and costs of identifying, complying with, avoiding, or risking breach of the law of all affected jurisdictions since that means literally all countries and states in the world.

From a public law perspective, uprooting creates difficult problems about the meaning of national (or state) sovereignty and about methods of asserting sovereignty in a truly global network. The death of distance attenuates the relevance of sovereignty as a general principle. Yet, that very effect creates incentives for states to seek to reassert power in this new context. From a commercial transaction perspective, the uprooting creates uncertainty that clashes against the opportunities that the new systems create for businesses dealing in information.

#### A. *Contract Choice of Law*

What law applies?

Traditional methods of deciding this within the United States and internationally rely on location: location of a transaction, location of performance, the location of an effect, etc. to reach a conclusion about which laws control.<sup>23</sup> Alternatively,

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23. See Perry Dane, *Vested Rights, "Vestedness," and Choice of Law*, 96 YALE L.J. 1191 (1987); AMERICAN LAW INSTITUTE, *RESTATEMENT OF THE LAW OF CONFLICT OF LAWS* (1934). Choice of law under the *Restatement* generally followed a "vested rights" approach. For contracts dealing with personal property or services, it breaks down essentially to three parallel rules. The first, applicable to questions of validity, such as consideration and capacity, requires application of the law of the location where the contract was made. See *id.* § 332. As a result, the *Restatement* devotes substantial attention to defining when and where a contract is created. The basic principle describes the place of making as the location at which "the principle event necessary to make a contract occurs." *Id.* § 311 cmt. d. That event, according to the *Restatement* differs depending on the type of contract involved and on whether the contracting occurred in a person to person context or over a distance through the use of mail, telephone and the like. The following primary rules apply: 1) formal contract: place of delivery, see *id.* § 312; 2) unilateral contract: place of offeree performance, see *id.* § 323; and, 3) bilateral contract: place of



they rely on a court determining which state or country has the most significant interest in the transaction.<sup>24</sup> These indicia for choice of law are attenuated and often made irrelevant by the fact that physical location in electronic information commerce has little or no importance. Trade in information occurs without regard to distance or borders. Guessing what law governs a given electronic contract or a group of electronic commerce events is just that, a guess. It is a guess that occurs in a context where the consequences of being wrong can be quite significant.

From a transactional perspective, the resulting uncertainty and risk entails cost and, in some cases, an impossibility of compliance (e.g., country A requires a step that country B prohibits). The desire to reduce cost and avoid conflict leads to a need to stabilize what law applies, either in terms of what state's law governs or in terms of harmonizing the substantive provisions of potentially applicable law. The alternative is that parties are subject to inconsistent and often indeterminate rules.<sup>25</sup> The question is how to stabilize the law applicable to

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offeree promise, *see id.* § 325. In defining the place of a promise for purposes of contracting at a distance, the *Restatement* uses a mailbox rule, making the promise effective when sent and then goes on to specify illustrations of this rule applicable to mail, telegraph, and telephonic contracting. *Id.* § 326. *See* Ian R. Macneil, *Time of Acceptance: Too Many Problems for a Single Rule*, 112 U. PA. L. REV. 947 (1964).

24. *See generally* WILLIAM M. RICHMAN & WILLIAM L. REYNOLDS, *UNDERSTANDING CONFLICT OF LAWS* 241 (2d ed. 1993); Patrick J. Borchers, *The Choice-of-Law Revolution: An Empirical Study*, 49 WASH. & LEE L. REV. 357, 372 (1992) (more than twenty years after the promulgation of the *Restatement (Second)* with its radically different approach to choice of law, approximately thirty percent of U.S. states continued to use the old doctrine and the new doctrines as adopted in other states were not uniform). Modern choice-of-law theories refer to governmental interests, while others refer broadly to the idea of "contacts", some of which entail ideas of location. The *Restatement (Second) of Conflict of Laws* uses a similar test, describing a test that requires consideration of various factors including the: (a) place of contracting, (b) place of negotiation, (c) place of performance, (d) location of the subject matter of the contract, (e) domicile, residence, nationality, place of incorporation and place of business of one or both parties, (f) needs of the interstate and international systems, (g) relative interests of the forum and other interested states in the determination of the particular issue, (h) protection of justified expectations of the parties, and (i) promotion of certainty, predictability and uniformity of result. *RESTATEMENT (SECOND) OF CONFLICT OF LAWS* § 6 (1971).

25. Based in part on this risk, UCITA proposes that absent fundamental public policy or specific, mandatory consumer rules, the parties can by agreement establish what law governs their transaction. In the absence of such contractual choice, an online transaction in computer information is governed by the law of

the global transactional context of electronic commerce.

There are various approaches, all of which will ultimately contribute to an international solution of the problem of complexity in law and regulation in global electronic commerce.

One approach argues for international harmonization of law to supplant conflicting rules and to fill important gaps where no law exists at all. Greater uniformity is clearly important as the information economy emphasizes global commerce in a way that did not exist before. UCITA, as well as directives in Europe and initiatives in the United Nations, address this. We need more of that effort. We especially need more of it for commerce in services and information. But full harmonization is an impossible dream. It may be socially undesirable since the richness of global society consists in part in its diversity. In any event, the issues in harmonization and the differences in cultural approach are too complex and too diverse to resolve in the foreseeable future.<sup>26</sup> While waiting for harmonization, trillions of dollars of commerce transpire in electronic commerce subject to costs associated with national laws built for older forms of international trade.<sup>27</sup>

There is a way out. Harmonization efforts assume that a common ground *can* be established and that a controlling force should be formal legal rules. An alternative view is that, rather than a controlling force, law should support the marketplace and contract choices, subject to restrictions that prevent abuse and choices that contradict fundamental public policy. Most states in the United States enforce contractual choices of

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the licensor's location. UCITA § 109.

26. For example, a Convention on the International Sales of Goods dealing with basic contract law issues was developed based on United Nations sponsorship and approved by a number of countries. However, even though it deals with the much more stable and settled law relating to goods, the Convention is often not used by parties and, in any event, by its own terms applies only to true *international* transactions between entities *located* in two different countries.

27. See Proposal for a European Parliament and Council Directive on Certain Legal Aspects of Electronic Commerce in the Internal Market, COM(98)586 final at 2 [hereinafter Proposed EU Directive]. How can that be, a lawyer might ask. This reflects a myopic view of business that is uniquely lawyerly in character. It can be because for business, legal risk is simply one of many forms of risk that any area of commerce entails. It is a risk (read cost) that should be minimized, but not one the existence of which is necessarily disabling, especially when one realizes that thousands of transactions occur without legal problems or disputes for every one that has any semblance of a legal dispute raised with respect to it.

law,<sup>28</sup> that rule is restated in UCITA.<sup>29</sup> It is generally followed in the *Restatement*. The rationale, even extrapolated to global commerce, is simple. Commerce consists of markets and markets are shaped by choices. These choices are best able generally to establish rules of the road for commercial transactions. If a party makes information or services available on terms that provide that the law of a designated state governs contract issues and the other party does not refuse that term, that agreed designation should be enforced in order to allow the parties to shape their own deal and identify their own level of risk. In UCITA, the contractual choice is reined in by the requirement that it not violate fundamental public policy of the otherwise applicable state law.<sup>30</sup> In addition, UCITA provides that the contractual choice of law cannot alter the effect of a mandatory consumer protection rule which cannot otherwise be altered by agreement under the law of the state whose law would otherwise have applied to the transaction.

Law in other countries is not always as fully accepting of contract choices, especially in consumer transactions. European rules, for example, allow contract choices to govern in commercial (business-business) transactions, but invalidate some choices in consumer contracts. These rules generally invalidate contract choices that deny the consumer coverage under *either* the law of the country where the consumer resides or the law of the country where the transaction occurred.

Why do states adopt this rule? The overt explanation is that of "consumer protection." But in some cases, law other than the law of the consumer's domicile better protects the consumer, while in other cases the law of the consumer's residence will be better. For example, the law of Texas gives the consumer far greater rights than the law of many other states. If consumers residing in those other states cannot be governed by Texas law, they receive less protection.

There is no consumer-protection basis for a mandatory rule on Internet commerce which requires use of the law of the consumer's residence and prohibits contrary agreements. In-

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28. See RESTATEMENT (SECOND) OF CONFLICT OF LAWS § 187 (1971).

29. UCITA § 109.

30. UCITA § 105(b). See *Application Group, Inc. v. Hunter Group, Inc.*, 61 Cal. App. 4th 881 (Cal. Ct. App. 1998). Cf. *Lowry Computer Prod., Inc. v. Head*, 984 F. Supp. 1111 (E.D. Mich. 1997).

stead, the reason lies in protecting sovereign prerogatives. The policy, although often not explicit, is that contracts should not alter the rules of a given country or state as to its own consumers because those states have a right to control the rights of their own residents, wherever they may be. Not surprisingly, until Internet commerce, few states sought to extend the scope of their consumer protection law to transactions in other locations, but now assertions of state sovereignty are common.

If applied generally to electronic commerce, a rule that invalidates contract choice of law in consumer contracts would guarantee huge legal compliance costs and legal compliance risk in electronic transactions. In effect, the rule would mean that even the smallest e-commerce vendor could not function on the Internet unless it either: 1) restricted its commerce to designated countries (or states) in which it knows and can comply with the law; or, 2) learns and complies with the law of all countries and all states. The first option creates an undesirable and artificial legal restraint on the capabilities for global information commerce, while the second option states an impossible task even for the world's largest companies. At a minimum, such a rule should be narrowed to cover only those rules that a state determines to be mandatory protections which cannot be altered by agreement. That approach allows greater flexibility with resulting cost savings, but retains true consumer protections.

#### *B. Choice of Law in the Absence of Contract Terms*

In the absence of an agreement that chooses the law applicable to the transaction, what law governs? More particularly, what rules should determine the answer to this question in a practical, transactional context?

To answer this, we need to recognize the difference between rules that determine choice of law as 1) law that provides a means of resolving litigated disputes, and 2) law that gives guidance to commercial relationships. For litigation, it may be acceptable (especially in tort cases) to say that a judicial or other tribunal should have broad flexibility to choose a law that reflects what it believes to be a fair, acceptable result for *that* litigation. Indeed, in the United States, since many choice-of-law doctrines evolve in judicial decisions made in the course of litigation or in academic literature focused on litiga-

tion, that flexibility is a hallmark of most doctrine. At their core, such doctrines consist of allowing a court to apply a variety of factors that are differently weighed under different doctrines and by different courts. The result in terms of predictability from a perspective centered on planning transactions before any dispute arises is, in a word, chaotic.<sup>31</sup> The benefits in fair litigation contrast with the detriments of uncertainty in planning multistate, multinational and global transactions.

If choice-of-law doctrine is addressed from a planning perspective, the goal is to give parties guidance about what law states the basis on which they should structure their transaction to achieve its intended effects. This facilitates commercial relationships and reduces costs for commercial and consumer commerce. It has been adopted as a primary rule in several revisions of the Uniform Commercial Code.<sup>32</sup>

In online commerce in information, there is only one rule that implements the goals of certainty and cost savings associated with a planning perspective. UCITA provides that rule. It states that, in the absence of contrary contract terms, the default choice-of-law rule is that the applicable law is the law of the place where the licensor is located.<sup>33</sup> In effect, an information and service provider should be governed by the law of the origin of the service. UCITA, in adopting a "place of origin" rule for applicable law in online information commerce, further provides that:

For purposes of this section, a party is located at its place of business if it has one place of business, at its chief executive office if it has more than one place of business, or at its place of incorporation or primary registration if it does not have a physical place of business. Otherwise, a party is located at its primary residence.<sup>34</sup>

The point is to establish a predictable and discernible basis for

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31. See RICHMAN & REYNOLDS, *supra* note 24, at 241 ("[C]hoice-of-law theory today is in considerable disarray . . . . [It] is marked by eclecticism and even eccentricity.").

32. U.C.C. § 4A-507(a)(3) (1998). Section 507(b) expressly rejects any "reasonable relation" test with respect to the enforceability of agreed choice of law. *Id.* § 4A-507(b). Choice of law is issuer's location regarding any issue of its liability. U.C.C. § 5-116(b) (1998).

33. UCITA § 109(b)(1).

34. *Id.* § 109(d).

what law applies in electronic commerce as a means of reducing uncertainty and resulting cost, which both are artifacts of law under any other rule of law.

The recent draft of the European Union Directive on Electronic Commerce<sup>35</sup> uses a similar approach, at least in part, for business-business transactions. The draft directive states:

Information Society services should be supervised at the source of the activity, in order to ensure an effective protection of public interest objectives; . . . to that end, it is necessary to ensure that the competent authority provides such protection not only for the citizens of its own country but for all Community citizens; whereas, moreover, in order to effectively guarantee freedom to provide services and legal certainty for suppliers and recipients of services, such Information Society services should only be subject to the law of the Member State in which the service provider is established . . . .<sup>36</sup>

Where a company is "established" does not focus on where the computer or data reside, but on where there is an ongoing business presence. This rule deals with regulatory scope and right to control. The draft does not deal with consumer law, and declines any intent to establish additional rules on private international law on conflict of laws or the jurisdiction of courts. Thus, while it goes part way, it leaves large gaps and uncertainty with sizeable costs.

To understand why the licensor's location is the appropriate rule for online information commerce, imagine the information service as at the center (or hub) of a wheel consisting of numerous spokes, each one of which leads to a client (licensee) in a different location. The economies of the Internet involving information and related services transactions lie in part in the fact that the provider can service clients around the world in a frictionless, often automated manner from a single location. Where the subject matter is computer information, this can be done without even the need for costly and cumbersome delivery

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35. Directive 2000/ /EC of the European Parliament and of the Council on certain legal aspects of Information Society services, in particular electronic commerce, in the Internal Market, Interinstitutional File 98/325(COD), 14263/1/99 REV 1 (Feb. 28, 2000) [hereinafter *Electronic Commerce Directive*].

36. Proposed EU Directive, *supra* note 27, at para. 8.

systems. Electronic communication through the same medium through which the contract was formed is an increasingly viable alternative that most information providers expect to be the dominant delivery system of the very near future.

In this framework, we might imagine three possible choice-of-law rules. One would identify the applicable law by referring to some flexible concept, such as choosing the law of the state with the greatest interest in resolving the issue or the law of the state with the most significant relationship to the transaction. Under that approach, what law would govern, for example, a transaction in which a licensee company based in Michigan, places an order for information to be delivered electronically to Texas from a provider located in Maryland? The answer is not clear. Should the answer change if the order were placed by the licensee's agent while she attended a meeting in New Jersey? Uncertainty such as this is a cost. It is difficult to see the commensurate benefit.

A second choice-of-law rule would have the law of the licensee's state govern the transaction. There are obvious problems of locating a licensee in the virtual world of Internet or when the licensee is mobile. Let's put those problems aside. The more fundamental problem is that this rule would choose as applicable law the outer ends of each spoke in our hypothetical wheel. For a licensor, sitting at the hub of this wheel, this has a very specific and costly effect. A rule that presumes that the transferee's location governs would require 1) that the information provider learn and comply with the law of all countries and all states, 2) that it arrange its contracting and distribution system to forego transactions with persons in jurisdictions whose law it does not know or to which it does not wish to conform (if such restrictions are technologically feasible), or 3) that it simply ignore the law of most states on the assumption that no bad results will occur from what will be noncompliance with at least some of those laws.

- Even for the largest companies, learning all states' laws within the United States and the laws of all countries is a daunting and expensive task. For ordinary sized companies or for individuals, it is impossible.
- Even if technologically feasible, an approach that restricts online transactions to states whose law the pro-

vider has learned and will comply with truncates a valuable efficiency of Internet information commerce.

- Ignoring the laws of most states, while a likely result, is hardly an effect of a choice-of-law regime about which a law-maker should be proud.

A third choice-of-law rule would select the law of the state in which the provider of the information is located. There are definition problems about where a multifaceted entity is located and mobility issues, but these can be overcome. This rule has several important effects in that it gives guidance for transactions and reduces costs of legal analysis of foreign laws and resulting legal risks. The rule eliminates reliance on the fictions that dominate modern choice-of-law doctrine, such as determining which state has the dominant interest, or in determining where a contract was created or performed in the Internet. Also, it creates a stable and identifiable base for planning and implementing transactions. Rather than a dispersed set of legal compliance requirements, the point of origin rule focuses all transactions for a provider on the law of a single state or country.<sup>37</sup>

Should this rule apply to consumer transactions?

Some assert that it should not. The apparent reasoning is that a consumer should have the *benefit* of being governed by the consumer's own national or local law. In online electronic commerce in information, however, that rule would create the costs and risks described above for any transaction involving a consumer. If we are to create those costs it would seem that we should demand an off-setting benefit. An answer to what bene-

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37. No approach to this issue is perfect. This rule, for example, creates a risk that vendors will "race to the bottom," by relocating to jurisdictions where the law is most beneficial to them. There are many reasons to believe that electronic commerce will not experience that. Empirically, for example, corporate governance issues in the United States are heavily dominated by states such as Delaware that encourage incorporation in that state. Yet, while Delaware has a sophisticated corporate law regime, it is not one that benefits corporate insiders at the cost of others. Also, the risk in electronic commerce would be offset by the frictionless ability of other entities to compete by offering customers and trading parties more desirable legal regimes. Additionally, however, UCITA contains a provision which alters the choice-of-law rule if the effect of applying it would be to select a law that is fundamentally less protective of the consumer than law that would otherwise apply. UCITA § 109(c).



fit is obtained is that this rule is a consumer protection rule, since consumers are better off being treated under their own local law. That is misleading. As we have seen, it is sometimes true and sometimes not true. In many cases, the *other* law will be equal or better for the consumer. Consider, for example, a country that provides no consumer protections at all, but whose citizens routinely do business with information providers in the state of Maryland, which has a well-developed consumer protection regime. Is the consumer benefited by having its own national law govern (with no consumer protections at all), or would the consumer benefit by having Maryland law apply?

The consumer issue ultimately is not a question of consumer protection, but one of a state's assertion or retention of sovereign rights and control in a virtual world where the relevance of distance and physical location are diminished. Electronic commerce in information highlights this as a major issue. If assertions of sovereignty in this form are pursued, they will substantially impede realization of the advantages of electronic commerce in information and, ultimately, harm the states that insist on the sovereignty claim. On the other hand, of course, it is naive to think that sovereign claims or positions will not be staked out in the virtual world of Internet and electronic commerce. How this will occur is a major unanswered issue in modern commerce. The hope is that sovereignty here will be buffered by the fact that the virtual commerce systems enable a fluid, international commerce that will move away from states that impose serious tariffs on it.

Arguably, the default choice-of-law rule could be different for transactions in goods conducted in the Internet. If the subject matter of a transaction is goods or other tangibles, the transaction requires physical delivery to the transferee. Because of this, there is a greater opportunity for a vendor to make decisions about where to ship or not ship based on a particular destination. Yet, even here, the questions must be: "what social benefits are obtained at the cost of a rule that requires vendors to forego the international commerce benefits of electronic systems by excluding some states or some countries from their commerce?"

### III. ASSENT AND CONTRACT CREATION

Electronic commerce is a commercial fact and a vibrant marketplace. Yet, it entails a way of doing business that has not been seen before and with respect to which existing legal regimes may not be adequately prepared. This latter fact has led to reevaluations of contract law principles as applied to computer information environments and, more generally, as applied to electronic commerce. Many of these studies and resulting legislation focus on removing *barriers* to electronic commerce.<sup>38</sup>

The premise of law-reform activity in electronic commerce has been to promote its growth. A report in the United States described the relationship between contract law and information-based transactions in the following terms:

The challenge for commercial law . . . is to adapt to the reality of the NII [National Information Infrastructure] by providing clear guidance as to the rights and responsibilities of those using the NII. Without certainty in electronic contracting, the NII will not fulfill its commercial potential. [R]egardless of the type of transaction, where parties wish to contract electronically, they should be able to form a valid contract on-line.

In particular, on-line licenses should be encouraged because they offer efficiency for both licensors and licensees . . . .

. . . [T]he Working Group supports the efforts presently underway to revise Article 2 of the U.C.C. to encompass licensing of intellectual property.<sup>39</sup>

After years of discussion and refinement, the project referred to in this report emerged as a uniform state law, UCITA. Section 106(a) of UCITA states its purposes as including to:

[S]upport and facilitate the realization of the full potential of

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38. The principal barriers are often presumed to be grounded in when or whether an electronic record or an electronic signature satisfies requirements in law that were developed with respect to paper-based writings and signatures. That simplistic view, however, ignores a wide range of foundational contract law issues that are more important for the functioning of the information marketplace.

39. WORKING GROUP ON INTELLECTUAL PROPERTY RIGHTS, INFORMATION INFRASTRUCTURE TASK FORCE, INTELLECTUAL PROPERTY AND THE NATIONAL INFORMATION INFRASTRUCTURE 58-59 (1995).

computer information transactions . . . clarify the law governing computer information transactions . . . enable expanding commercial practice in computer information transactions by commercial usage and agreement of the parties . . . promote uniformity of the law with respect to the subject matter of this [Act] . . . .<sup>40</sup>

The most recent draft of the European Union Directive on Electronic Commerce similarly emphasizes the importance of promoting electronic commerce.<sup>41</sup> The Directive focuses on promoting e-commerce "locally," that is, among states within the European Union. Earlier drafts referred expressly to the competitive advantage for European Union countries and their internal market vis-à-vis other regions and countries that could be attained by developing law in this context.<sup>42</sup> This incentive underscores a risk in the law related to electronic commerce. Information assets are unconnected to physical location and are supremely movable. One view is that they will move to the most congenial or supportive locale or, at least, to avoid environments that are not congenial. But, while this is true, electronic commerce is not a zero sum enterprise. The goal should not be to establish one's own sovereign perspectives ahead of those of other states or countries. The goal should be to create supportive, open-market approaches that enhance the net overall gain shared by all participants.

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40. UCITA § 106(a).

41. Electronic Commerce Directive, *supra* note 35, paras. 2-65.

42. The 1998 draft proposal was the most explicit on this objective:

The Commission's 1997 Communication on electronic commerce set a clear objective of creating a European coherent legal framework by the year 2000. This proposal meets that objective. It builds upon and completes a number of other initiatives that, together, will eliminate the remaining legal obstacles, while ensuring that general interest objectives are met, particularly the achievement of a high level of consumer protection. This proposal will reinforce the position of the Community in the international discussions on the legal aspects of electronic commerce which are currently underway in a number of international fora (WTO, WIPO, UNCITRAL, OECD). The Community will thus secure a major role in international negotiations and significantly contribute to the establishment of a global policy for electronic commerce.

Proposed EU Directive, *supra* note 27, at 2 (Executive Summary).

### A. *Technology Adequacy*

Many discussions suggest that the most important contract law issues for electronic commerce deal with the *technology* of electronic commerce and whether contract law *permits* use of that technology. Yet, adequacy is the simplest issue of all, and will become even less difficult as familiarity with and use of the technology continues to grow. The rule should be: except in extreme and limited cases, there is no reason to not allow electronic records and signatures to fulfill former written requirements. Indeed, I suspect that most courts and regulatory entities, faced with a statutory requirement of a writing or a signature, would readily conclude that digital equivalents suffice under the same standards as would written equivalents.<sup>43</sup> As it has played out, however, the *adequacy* issue has not remained that simple; uneasiness about new technologies has led to potentially harmful proposals that have been adopted in at least a few states.

#### 1. The General Principle

Issues about electronic adequacy in law involve whether electronic (digital) files, digital entries, or other digital acts satisfy requirements of a *writing* or a *signature* in cases where such requirements are imposed by law.<sup>44</sup> While this might seem to be a core issue, billions of dollars of commerce have been conducted electronically for over a decade without serious judicial challenge to the premise that electronics suffice.<sup>45</sup>

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43. Of course, this does not mean that anything electronic will always suffice for a written or traditional equivalent. For example, the traditional definition of signature, carried forward into U.C.C. Article 9 and UCITA in the concept of authentication, is that the symbol or act must be taken with an intent to authenticate a record. UCITA § 102(a)(6); U.C.C. § 1-201 (1998). In the absence of that intent, a symbol does not meet the signature or authentication requirement. Thus, in *Parma Tile Mosaic & Marble Co., Inc. v. Estate of Short*, 87 N.Y.2d 524 (1996), the court held that an identifier line on a facsimile transmission was not a signature for purposes of New York law where there was no intent that it be a signature.

44. There are many situations where a writing or a signature may be used, but is *not* required by law. For example, under U.C.C. § 2-201, a signed writing is required to enforce a contract only if the goods to which the contract refers have not already been delivered. When they have been delivered, that conduct satisfies the rudimentary documentation purposes of the Article 2 statute of frauds.

45. Among the very few judicial expressions of concern about this issue is found in *Zemco Manufacturing, Inc. v. Navistar International Transportation Corp.*,

Why is this true? One answer is that the commercial world long ago accepted that electronics suffice. Courts, thus, are seldom presented with the adequacy issue because the parties assume that digital surrogates suffice for simple contract law ideas. When presented with the issue, courts are unlikely to get it wrong. The world has moved past when the general rule that digital records supplant paper can be seriously questioned.

At one level, there is no principled argument that electronic records and electronic signatures should not suffice under general law requirements of a "writing" or "signature." In many countries, for example, a signed writing that contains the contract terms is never required; there is in these countries no statute of frauds rule. That approach is generally followed in the United Nations Convention on the International Sales of Goods, although that convention allows countries to derogate from this rule.<sup>46</sup> Clearly, where no legal mandate of a writing exists, "technology adequacy" is not an issue.

In other contexts, general contract law requires a "signed writing" for enforceability under a statute of frauds.<sup>47</sup> But in commercial practice, that requirement is no more than a small impediment to commerce, seldom invoked. Indeed, if one asked business lawyers how often they had any concern about whether a transaction conformed to the statute of frauds, none would say that they ever considered that issue. In that environment, allowing electronic records and electronic signatures to suffice

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186 F.3d 815 (7th Cir. 1999). There, the court held that genuine issues of fact existed about whether computer printouts allegedly representing extensions of a contract for sale of machined parts met the signature requirement under the applicable statute of frauds under Article 2 of the U.C.C. The question is whether the symbol was executed or adopted by the party with present intention to authenticate the writing. *Id.* at 821.

This court, applying Illinois' version of the UCC, has previously held that typed initials or a letterhead could suffice as a signature. We cannot say, on this record, that all of the computer printouts in this case are not adequately "signed." The name "Navistar" is stamped or typed on some of these documents. There is an issue of fact regarding whether these markings were executed with the intention of authenticating the documents. *Id.* at 821-22 (citations omitted). Notice, of course, that the issue was not adequacy of electronics, but whether the particular symbols were done with the requisite intent.

46. United Nations Convention on Contracts for the International Sale of Goods, Apr. 11, 1980, 1489 U.N.T.S. 3 (entered into force on Jan. 1, 1988).

47. See, e.g., U.C.C. § 2-201 (1998).

for written records and written signatures is not a major policy change.

At present, at least twenty-five states in the United States and five countries expressly recognize as a matter of law the equivalence between electronic "records" and writings in at least some contexts.<sup>48</sup> Both UCITA<sup>49</sup> and the draft EU Directive on Electronic Commerce<sup>50</sup> adopt the concept of electronic equivalence. The Uniform Electronic Transactions Act (UETA) similarly adopts this principle, but limits when it applies.<sup>51</sup> The draft EU Directive provides that

Member States shall ensure that their legislation allows contracts to be concluded electronically. Member States shall in particular ensure that the legal requirements applicable to the contractual process neither prevent the effective use of electronic contracts nor result in such contracts being deprived of legal effect and validity on account of their having been made electronically.<sup>52</sup>

UCITA provides: "A record or authentication may not be denied legal effect or enforceability solely because it is in electronic form."<sup>53</sup>

Both UCITA and UETA adopt a convention initiated in the

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48. For a collection of state and international law on this issue, see McBride Baker & Coles, *Summary of Electronic Commerce and Digital Signature Legislation* (last updated Mar. 3, 2000) <<http://www.mbc.com/ecommerce.html>>.

49. UCITA § 107.

50. Electronic Commerce Directive, *supra* note 35.

51. Uniform Electronic Transactions Act § 5(b) (1999) [hereinafter UETA]. The existence or non-existence of an agreement is to be determined from the context, including the conduct of the parties. As enacted in non-uniform form in California, the requirement of agreement is much more demanding. The California rule provides that:

Except for a separate and optional agreement the primary purpose of which is to authorize a transaction to be conducted by electronic means, an agreement to conduct a transaction by electronic means may not be contained in a standard form contract that is not an electronic record. An agreement in such a standard form contract may not be conditioned upon an agreement to conduct transactions by electronic means. An agreement to conduct a transaction by electronic means may not be inferred solely from the fact that a party has used electronic means to pay an account or register a purchase or warranty. This subdivision may not be varied by agreement.

CAL. CIV. CODE § 1633.5(b) (West 1999).

52. Proposed EU Directive, *supra* note 27, art. 9(1).

53. UCITA § 107(a).

U.C.C. using the term "record," rather than "writing," a "record" being defined as "information that is inscribed on a tangible medium or that is stored in an electronic or other medium and is retrievable in perceivable form."<sup>54</sup> UCITA recognizes the equivalence of electronic processing and "traditional" signatures; this is implemented in UCITA through a new term, "authentication" which encompasses both electronic and traditional signatures. That convention has been followed in U.C.C. Article 9 (dealing with secured transactions). UETA has the same concept. The model law proposed by UNICTRAL likewise provides a rule of equivalence. All in all, while the formalities debate continues, its commercial relevance is reduced and need not detain us as a matter of *general* private law. The issue remains important, however, in the myriad regulatory rules that in some jurisdictions require writings and have not been updated to electronic commerce.

## 2. The "Special" Cases: Commercial

"Solving" the technology adequacy issue has been a consistent theme in contract law revisions on electronic commerce. As this focus has extended over time, however, the premise that electronic records and signatures should be paper equivalents has been affected by other issues and has shifted in some surprising ways. The discussion of equivalence has taken on a new theme of conflict, grounded in consumer protection issues.

The new theme often belies the issue to which contract law reform was originally addressed. That issue is that billions of dollars of commerce occur electronically even though many laws require a writing or a written signature which, under one view, cannot be created in the electronic world. Internet and other electronic interchanges are accepted as fundamental technology by their users. The new debate, however, often seems to ignore that and asks, instead, whether there may not be many cases where electronics should not suffice to meet a requirement of a writing and, thus, that there should be some places where electronic commerce cannot function. Debates on technological adequacy thus have taken on issues associated with a fundamental uneasiness among some about the modern economy and the digital environment itself.

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54. U.C.C. § 5-102(14); UCITA § 102(a)(58); UETA § 2(13).

Are some *commercial* cases so different that the required "writing" or written "signature" should not be changed by a general law allowing electronic commerce?

If one asks this question seriously, there may indeed be some cases where commercial law truly incorporates a policy that can be met only by a *signed paper* rather than an *authenticated electronic record*. To decide when or if this is true would require that the person asking the question focus on why a writing requirement made sense as part of the particular rule and ask whether that policy in fact precludes a rule that electronic records suffice for the same purpose. For example, should it be sufficient to make disclosures about proposed private investments in securities electronically? Can accounting records be retained solely in electronic form for an audit? Are electronic records adequate evidence of a contract in litigation?

Asked in this way, in most cases, the answer will be that digital records are sufficient if the proponent or user of the record can establish the authenticity and receipt of the record. These same issues, of course, are important for paper records and signatures.

Yet, in any jurisdiction, there may be literally thousands of rules in which a statute or a regulation requires a written record or signature. The practical question becomes: should the electronic commerce reform approach be that such requirements are met by digital equivalents unless the contrary is proven to be important, or should the approach be that advocates of electronic adequacy must prove their case for each situation in which an existing rule requires a writing?

The proper answer is that electronic computer systems ordinarily suffice. A decision that this is not so in reference to a particular rule should be based on the particular policy underlying that *specific* rule. It should be up to the proponents of the exception to make the case that a paper record is actually required. Digital commerce methods entail low friction and high speed with resulting cost savings and market options that do not exist in old commerce. This benefits both the person acquiring information and the person providing it. Multiple and often conflicting requirements that might be created among numerous jurisdictions would encumber an otherwise transparent and largely frictionless transactional system. This produces a net loss.



Each decision that a writing requirement is not satisfied by a digital record imposes a cost. That cost reduces the benefits that the digital systems enable. If the exceptions expand among different states and jurisdictions in different ways and with respect to different rules, the cost multiplies and may seriously impede commerce. A decision to deny digital adequacy should be reached only if the clear benefits of that choice exceed the harm it causes. What should happen is that we should ask why policy-makers in a paper world chose to require a writing and how should the actual policies influencing that decision be exported to the modern electronic environment.

The reality does not always approach this. Most electronic commerce statutes validate electronic records and electronic signatures, at least by providing that they should not be denied legal effect because they are electronic. But, often, the adequacy principle is limited in scope. In some cases, such as in UCITA, this is a product of the limited substantive focus of the law. UCITA governs contracts in computer information transactions, but not goods or personal services transactions.<sup>55</sup> Its statement of the adequacy principle is thus limited to those cases. The same will be true if a revised Article 2 containing electronic commerce rules is enacted. In other contexts, some statutes take a broad validating approach, but others do so only within limits. Why this is so is not clear, but works off a concern about and uneasiness with the new technology and an inability to come to grips with why any writing requirement exists in any law. In most cases, the answer to that question is simply that there was no alternative to paper in cases where the goal was to require a contract or term to be in a recorded form.

Broad direct validation of adequacy is most clearly illustrated in the European Directive on Electronic Commerce.<sup>56</sup> This Directive requires countries in the European Union to remove barriers to enforcement of electronics as equivalent to paper records and signatures, except in narrow contexts. In UCITA, as is apparently true in the Directive, the approach is to validate, *as a matter of law*, the principle that electronics

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55. UCITA § 103(a).

56. Electronic Commerce Directive, *supra* note 35, art. 9.

should not be discriminated against in any case where a writing is otherwise required. The policy judgment is that, in principle, there is nothing sufficiently different in legal policy between a writing (or written signature) and electronic counterparts that justifies the costs that different treatment would impose on electronic commerce. If the parties were to agree to not treat electronics as being equivalent to paper, that agreement would be enforced. But in the absence of such an agreement, the presumption should be that electronics are not *per se* less acceptable than are writings. UCITA provides that: a record or authentication may not be denied legal effect or enforceability solely because it is in electronic form . . . . In any transaction, a person may establish requirements regarding the type of authentication or record acceptable to it.<sup>57</sup>

UETA takes a different approach. It includes the same general validation rule, but the effect is different. UETA does not apply to a transaction unless the parties *agree* to use electronic systems for *that* transaction.<sup>58</sup> Furthermore, consent to electronics that allows application of UETA continues for future transactions only if a party does not withdraw its agreement to use electronics. The UETA rule is not that electronics should not be discriminated against. Rather, the rule is that if the parties *agree* to use electronics, law should not discriminate against the *agreed* use in cases where the form of the law requires use of a writing or traditional signature.

What is meant by the requirement that the parties *agree* as a precondition to UETA applying at all? One reading would render the requirement of an agreement meaningless: it would infer "agreement" in broad terms. An "agreement" is the "bargain of the parties in fact" and can be inferred from all of the circumstances. Does a business card handed out during a cocktail party constitute a "bargain" (agreement) to use electronic communications if that card contains a physical address and an e-mail address? One suspects that a court would say "no," but some argue that this is enough "agreement" for UETA.<sup>59</sup> Yet, if that interpretation works, what does one do with the U.C.C. concept that an "agreement" is a "bargain" and that the

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57. UCITA § 107(a)(c).

58. UETA § 5(b).

59. *Id.* § 5, Official Comments (1999).

idea of a bargain seems to be that two parties agree to something? In any event, if a broad interpretation hinging agreement on the use of a business card is followed, it renders the statutory requirement largely meaningless. If that were intended, one wonders why the requirement is present at all, except as a basis for litigation.

If the requirement of agreement was intended to have substance and bite, then where does that bite fall and why? Other laws directly declare electronics as adequate (precluding discrimination against them simply because they are electronic) except in delineated cases. The agreement requirement transforms the function of the statute: instead of an affirmative public policy statement, it becomes an acquiescence in the choice of the parties. That is indeed useful, but a person relying on it must be sure to obtain that agreement.

Under UETA, an agreement to conduct transactions electronically can be withdrawn and the party can refuse to do so for other transactions.<sup>60</sup> This right to withdraw cannot be varied by agreement. The term "transaction" does not refer to an overall contract or its performance, but to any specific interaction that involves electronics. Thus, apparently, an assent to accept notices electronically in an online relationship can be unilaterally withdrawn after the initial agreement.

### 3. The Special Cases: Consumer Issues

Although not designated as a consumer protection, the focus on requiring on-going agreement to use electronic messages as a precondition for their adequacy under UETA relates to a concern that broad use of electronics may detrimentally affect consumers. For some, the adequacy issue seems more complicated and more threatening in consumer contracts.

Why?

The technical arguments claim that an electronic message should not suffice for a written notice because the two are different, but that argument typically leaves the *ways* in which they are different unstated, except for general statements that electronic messages are not given as much attention as written messages. For me the difference goes the other way: I am actually *more* likely to pay attention and respond to an e-mail than

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60. *Id.* § 5(c).

a form letter. The fact is that many individuals (consumers) actively use the Internet, computers, and e-mail. Electronic commerce creates a new and more consumer-friendly market where myriad potential vendors can be contacted and prices or services compared with little effort by the consumer. It seems awkward to compromise those *consumer* benefits on the altar of a general concern that the new systems are less vivid than their paper counterparts, especially since this was not the policy reason for the rules requiring a writing or a mailing because no option then existed for electronic message systems.

Of course, I may not have an e-mail address or other electronic message or recording system that I use. Some say that this means that generally validating electronic systems is inappropriate because some consumers do not use electronic mail or equivalent systems. Of course, it will always be the case that some individuals will not use electronic mail or analogous systems. However, the principle of technological equivalence does not erase other indicia of whether a notice, record or signature is effective. A signature requires an intent to sign (whether electronic or on paper), a record requires some level of reliability in reproducing the information (whether electronic or in writing) and a notice must be sent to a location from which it can reasonably be expected to be received (whether electronic or otherwise). If I do not have an e-mail address, to what location could an e-mail notice be sent and still described in law as a reasonable notice?<sup>61</sup> Equating electronics to writings has no impact on this.

The truth is that, although presented as *consumer* issues, the concerns that advocates raise most often reflect *their* fundamental discomfort with the new economy and the idea of electronic commerce. That discomfort, focused on technology adequacy, is misplaced. There are important consumer issues in electronic commerce, but the *adequacy* of a digital record or electronic signature is not one of those issues.

The first state to adopt UETA was California. Unfortunately, the California statute broke *far* from UETA. The California Act contains a number of rules that address "consumer"

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61. The U.C.C. requires that notice entail sending the information in a manner reasonably calculated to be received, an element of the definition of notice that would seem to be assumed in any system or rule. U.C.C. § 1-201 (1998).

issues, but that are not limited to consumer cases as the statute was drafted. Rather than benefit electronic commerce, the California UETA creates new unwarranted risks and costs. One California rule limits how a party (consumer or otherwise) can effectively agree to engage in electronic transactions or to accept electronic notices in a manner under which the Act will allow electronics to supplant a required writing. Under this rule, an agreement is unenforceable if it is contained in a standard form *written* contract unless that contract deals solely with assent to electronic transactions and assent to it is optional. The rule is that:

- Except for a separate *and* optional agreement the primary purpose of which is to authorize a transaction to be conducted by electronic means, an agreement to conduct a transaction by electronic means may not be contained in a standard form contract that is not an electronic record.
- An agreement in such a standard form contract may not be conditioned upon an agreement to conduct transactions by electronic means.
- An agreement to conduct a transaction by electronic means may not be inferred solely from the fact that a party has used electronic means to pay an account or register a purchase or warranty.
- These rules may not be varied by agreement.<sup>62</sup>

What interest is protected by this rule? Presumably, the answer is that the Act protects against a concern about overreaching and abuse in standard form contracts that allow a party to send notices by e-mail or the like.<sup>63</sup> The justification

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62. CAL. CIV. CODE § 1633.5(b) (West 1999).

63. One important point to note is that this rule does not apply if the agreement itself is contained in an electronic record. Presumably, this is because, in such cases, the consumer or other party knows that it is engaged in electronic commerce and, thus, a clause providing that further electronic transactions are permitted cannot constitute a surprise. UCITA does not address this issue, but by definition all UCITA transactions involve computer information as the transactional subject matter. UCITA § 103(a).

hinges on the view that consumers must be protected against unknowingly agreeing to electronic transactions, but the rule also applies to business-business transactions governed by California law.

Of course, written agreements are often in "standard forms" and they often have terms that deal with to what location a notice should be sent and how it should be sent. Singling out assent to electronic notices or the like is inappropriate and can only be justified by a belief that some people who have electronic addresses are uncomfortable using them and should not be allowed casually to agree to do so and that the applicable law requiring a written notice could not adequately cope with cases where this is done in an abusive manner.

In a digital economy, the idea that agreements to use digital messages require special formalities is absurd. It is even more absurd when, as in California, the special formalities are not limited to consumer transactions. For example, in a franchise or distributorship agreement, the California rule seemingly precludes the parties from agreeing in the written contract (ordinarily a standard form) that future "transactions" will be electronic (e.g., electronic orders, financial reports).

Five years from now, the idea that one must prove an agreement to use electronics in order to be legally enabled to do so will seem quaint. Five years from now, the California restrictions will have been repealed, ignored by commercial parties, or viewed as a barrier to electronic commerce in California.

### *B. Assent to Contract*

Technology adequacy should be a simple question unless it is embroiled in debates generated by images of the past which cause some to seek to avoid the future. There are, however, many significant legal issues in electronic commerce. One concerns choice of law as already discussed.<sup>64</sup> Another, which we

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64. Still another international debate deals with the issue of "attribution." This is the question of under what circumstances an electronic record or signature can be said in law to be attributable to a particular party. A number of states and several countries have adopted so-called digital signature legislation under which encryption technology of a particular type, when used subject to a certification system, creates various presumptions of attribution. Other states grant enhanced reliability to certain types of signatures, while still others do not deal with

briefly discuss here, concerns how an agreement and its terms can be established in an online transaction.

This issue deals with the concept of assent in contract law. Many electronic commerce relationships are both created and performed electronically. In such cases, it is often true that practice entails electronic presentation of terms with electronically indicated assent. This indication of assent often is sought through a mouse click on an "I agree" button (or, when appropriate, "I do not agree"). The legal issue is whether this establishes a binding obligation and whether the electronic terms are the terms of the agreement.

There is little reason to believe that the electronic acts indicating assent do not do so. Behavior and non-verbal assent have long been treated in most countries as adequate to form a contract and adopt terms relating to that contract.<sup>65</sup> Although there are few cases, all reported cases in the United States hold that an indication of assent online by clicking "I agree" forms a contract.<sup>66</sup> A Canadian court in *Rudder v. Microsoft Corp.*<sup>67</sup> reached the same result, holding that a choice of forum clause in an online agreement controlled the forum (jurisdiction) issue. The court rejected the premise that presentation of the clause electronically was deficient because of the "click, I agree" format. While not all terms of the agreement were displayed at the same time, the court held that this did not change the fact that assent was effectively given. There was no basis to selectively invalidate any particular term. The court commented:

[P]laintiffs seek to avoid the consequences of specific terms of their agreement while at the same time seeking to have others enforced. Neither the form of this contract nor its manner of presentation to potential members are so aberrant as to lead to such an anomalous result. To give effect to the plaintiffs' argument would, rather than advancing the goal of "commercial certainty" . . . move this type of electronic trans-

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the idea of enhanced attribution at all. See RAYMOND T. NIMMER, *THE LAW OF COMPUTER TECHNOLOGY* ch. 14 (3d ed. 1997).

65. RESTATEMENT (SECOND) OF CONTRACTS § 19 (1981).

66. See, e.g., *Caspi v. Microsoft Network, L.L.C.*, 732 A.2d 528 (N.J. Super. Ct. App. Div. 1999); *Storm Impact, Inc. v. Software of the Month Club*, 13 F. Supp.2d 782 (N.D. Ill. 1998).

67. *Rudder v. Microsoft Corp.*, 2 C.P.R. 4th 474, Ontario Superior Court (Canada, Oct. 8, 1999).

action into the realm of commercial absurdity. It would lead to chaos in the marketplace, render ineffectual electronic commerce and undermine the integrity of any agreement entered into through this medium.

On the present facts, the Membership Agreement must be afforded the sanctity that must be given to any agreement in writing.<sup>68</sup>

UETA does not deal with assent.

UCITA does and embellishes current law in a way that ensures protection of the person assenting to the contract terms. UCITA codifies and clarifies common law which holds that assent can be indicated in various ways, including by conduct. UCITA requires that, in order for conduct to constitute assent, the conduct must be intentional, must occur with "reason to know" that the other party will view it as assent, and must be *after* the party had an opportunity to review the contract terms.<sup>69</sup> An opportunity to review exists only if the record or term is made available in a manner that "ought to call it to the attention of a reasonable person and permit review."<sup>70</sup> Consistent with general contract law, an opportunity to review and eventual assent to contract terms does not require that the party must *in fact* have read those terms.

The most recent draft proposal for a European Directive on Electronic Commerce deals with the same issue, but more in terms of regulated disclosures before the purchaser's "order" is placed.<sup>71</sup> The draft provides "Member States shall ensure, except when otherwise agreed by parties who are not consumers, that at least the following is given by the [provider] clearly, comprehensibly and unambiguously and prior to the order being placed by the recipient of the service." The draft does add on to the list 1) the steps to be followed to conclude the contract, 2) whether the concluded contract will be filed by the provider in a public record, 3) the means for identifying and correcting any input errors in placing the order, and 4) the languages offered for concluding the contract.

A directive sets out standards for what the member states

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68. *Id.*

69. UCITA § 112.

70. *Id.* § 112(e)(1).

71. Electronic Commerce Directive, *supra* note 35, art. 10(1).



of the EU should do. Viewed in this context, the degree of difference between UCITA ("opportunity to review" before assent) and the draft directive is one of approach, rather than concept. UCITA focuses on a general standard and an opportunity to review important terms, while the draft directive centers on details, perhaps omitting some that might be important for achieving the goal of adequate disclosure prior to assent.

The approaches are conceptually similar: before one can assent to a contract, important terms must be made available for review.

What acts constitute assent to terms, given an opportunity to review them?

Under UCITA a party is bound by terms only if it acts in a way that manifests assent to those terms. This requires conduct taken voluntarily with reason to know that the conduct will indicate assent to the contract as viewed by the other party. The comments to UCITA state:

Assent in common law and [UCITA] does not require that a party be able to negotiate or modify terms. But the assenting behavior must be intentional (voluntary). This is satisfied if the alternative of refusing the deal or terms exists, even if refusing terms leaves no alternative source for the computer information . . . Knowledge that behavior will be treated as assent suffices. Also, actions are treated as assent if a person has "reason to know" that they will lead the other party to infer that there was assent. Factors that relate to this issue include: the ordinary expectations of similar persons in similar contexts or trade usage; language on a display, package, or otherwise made available to the party; the fact that the party can decline and return the information, but decides to use it; information communicated to the actor before conduct occurred; and standards and practices of the business, trade or industry of which the person has reason to know.<sup>72</sup>

Some have argued that a double click on an "I agree" icon is only "fictional" assent that should be ignored. It is not clear what further indication of assent could be obtained in Internet. Most likely, however, this argument is disingenuous; the persons using it actually believe that parties should not be bound by standard forms, even in the online world. But in Internet

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72. UCITA § 112 cmt. 3(b).

commerce, all contracts involve standard forms. Does that then indicate that contractual terms cannot be agreed to online? The consequences of such a rule would be draconian and would contradict the basic notion of contract and the economic reality of modern information commerce.

How can we reasonably say that law should not support such contracts? The answer is that law cannot invalidate these agreements unless we are willing as a matter of policy to stifle electronic commerce where standard forms are an inherent part of the transactional context.

Initial drafts of European Union directives on electronic commerce sought to deal with how assent to an online contract can be established. In fact, they indicated that issue was a crucial element of establishing electronic commerce law. That is true. However, treatment of contractual assent in electronic commerce has varied over the drafts of the EU Directive and is not resolved in the current proposed Directive. Early drafts indicated that establishing when conduct reacting to on-screen icons and other online indications of assent was a critical element of enabling electronic commerce. The most recent draft directive, however, omits any reference to when a contract is created.<sup>73</sup>

The drafts originally addressed the assent issue and, in an early manifestation, proposed a multiple step requirement that would have created substantial cost and compliance risks. A later draft provided that a contract is formed when an indication of assent is followed by an acknowledgment. The current draft requires a prompt acknowledgment of an *order*, but does not deal with how assent is manifested. The Directive does not say that acknowledgment is to be treated as assent to the order. Indeed, it does not say when a contract is formed. This, apparently, leaves the issue to non-uniform law about when or whether a contract is formed: for example, is receipt of the order assent to a contract, or is receipt of the acknowledgment enough to create a contract?

In the United States, raising this type of issue hearkens back to archaic common law concepts that have had little or no relevance in practical commercial contract law for generations. Those issues are whether an order placed against a posted

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73. Electronic Commerce Directive, *supra* note 35, arts. 9-11.

price or availability creates a contract, or whether the "order" is merely an offer to contract on the listed terms? In contrast, the primary issue in the United States is not what is the offer/acceptance or when agreement occurs in time, but *whether* there was assent to terms from one party or the other. That issue is addressed in UCITA.

The issue concerns whether a party has assented to terms in a record provided by the other party. UCITA provides:

A person manifests assent to a record or term if the person, acting with knowledge of, or after having an opportunity to review the record or term or a copy of it:

- (1) authenticates the record or term with intent to adopt or accept it; or
- (2) intentionally engages in conduct or makes statements with reason to know that the other party or its electronic agent may infer from the conduct or statement that the person assents to the record or term.<sup>74</sup>

Assent requires voluntary conduct with reason to know its consequences.

This is a concept grounded in ordinary contract law in the United States.<sup>75</sup> However, the electronic commerce issue is whether that premise can be reasonably extrapolated to other countries and other contexts. The issue is not simply a technical law question. It deals with how and whether parties can establish terms of agreement regarding use, access to and other attributes of digital information systems.

#### IV. SUMMARY

As we have seen, online digital systems create a "death of distance" and a change in how parties do business and how people and organizations interact. They affect how law should be formulated. While changes of the sort we have experienced often engender desire for regulation, modern information markets are, and should be, largely defined by agreements and

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74. UCITA § 112(a).

75. See RESTATEMENT (SECOND) OF CONTRACTS § 19 (1981).

other manifestations of market choice, rather than by regulation. If we focus on the computer information industries and commerce in information and services, we can see a vivid demonstration of how that market context generates an expanding productivity and a burgeoning diversity in product, service and opportunity. No regulatory scheme could approximate this.

What from one person's vantage appears to be burgeoning diversity and vibrant economic activity, is sometimes viewed from another vantage as a disruptive challenge to the existing social order and comfortable patterns of business and law. This essay shows, I think, that the challenge to law is real, but that the remedy is not to seek a retraction or retrenchment. Even were that possible, it would be undesirable. But it is not possible. A genie has left the bottle and has transformed our economy and the way we lead our lives. It blurs legal categories, eliminates or greatly reduces concepts of location and distance, diversifies the marketplace, allows small entities to compete with large entities, and fundamentally calls for new ways of understanding law and business, as well as their interaction.

I have not even scratched the surface of the issues that the information economy and the emergence of computer information as a significant commercial resource present. As we have seen, however, they are already being debated and discussed, with some patterns of tentative resolution emerging. This is an exciting time for law and lawyers. We have begun to rework our ideas of law as we respond to the new information economy and the challenges it presents.

